SN510 MANUAL

Version: 3.0

Model: SN-510-J10
SN-510G-J10

2021-09

CONTECT

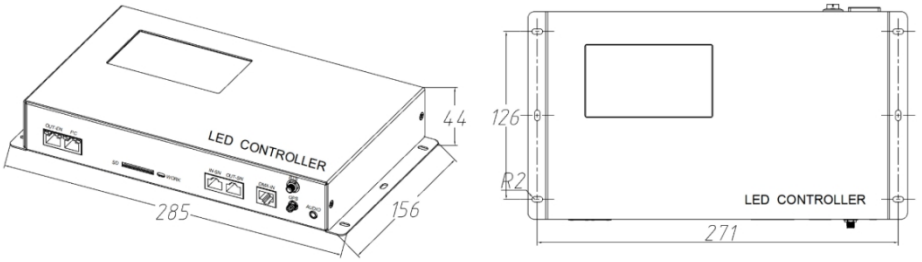
1. FUNCTION OVERVIEW

1. Support both PC control and SD card control. Work with EN controller, can switch freely between PC control and SD card control which is flexible and convenient.
2. When SN-510 works as master controller in intelligent control system, the animations of EN controller at the same link can be changed by just changing effect files in the SD card. The SD card file cannot be renamed.
3. Each SN-510 can control 300,000 channels or 154pcs controllers when it works as master controller in SD card control.
4. Time control, cascade sync, GPS satellite sync and DMX control are optional as additional functions.
5. Specialized software of making animation is included, user can make their own effects.
6. The load capacity of different lighting fixtures is different. (If frame frequency is not required, load capacity of each channel can be increased independently, and must test it in the factory.)

2. TECHNICAL PARAMETERS

2.1. PRODUCT INFORMATION

Cover material:	Iron
Input voltage:	AC 100V - 240V
Cascade signal:	[Cascade of SN] optocoupler [PC - SN, SN - EN] SW Ethernet Protocol
Loading:	25FPS: 240,000 channels 30FPS: 300,000 channels
Network interface:	RJ45 Ethernet interface
Output control:	154pcs controller at most (preferably no more than 80pcs).
Working power:	<10W
Working temperature:	-15℃～60℃
Relative humidity:	≤ 50% RH
Transmission distance:	Use UTP—unshielded twisted pair cable, distance between the controllers can be 100m. Please add signal amplifier if the distance of SN cascade is over 100m. For further distance of SW Ethernet Protocol, optical fiber converter can be used and the distance can reach 5 km.
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.Please do not install the controller in magnetic, high pressure, high temperature or seriously wet environment. 2.Please do connect the earth safely in order to reduce risks of fire and damage which cause by short circuit. 3.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. 4.No waterproof function in the control system, please pay attention on rainproof and waterproof during installing.
Net weight:	1.3kgs
Size:	L285*W156*H44
(Unit mm)	

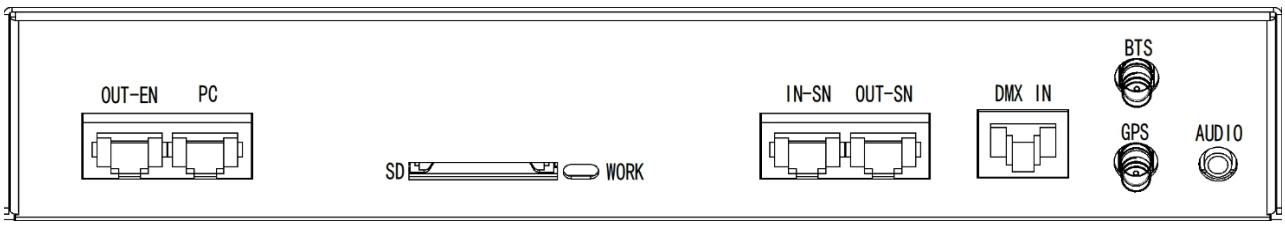


2.2. ERROR CODE

Error	Introduction	Reason
ER01	No SD card	Poor seat connection. / No SD card.
ER02	SD card no response	Card is broken. / Card doesn't support read sequentially.
ER03	Cannot reset SD card	Card is broken. / Card doesn't support read sequentially.
ER04	Cannot activate SD card	Card is broken. / Card doesn't support read sequentially.
ER05	Cannot read SD card	Cannot read part of the card. / Bad connection.
ER06	Cannot find feature code	Card is unformatted. / No file.
ER07	SD card file sequence doesn't match the controller	SD card file error. / Unfinished video merging.
ER09	Control sequence doesn't match file sequence	Player setting does not match the cover number.
ER10	Wrong password	Input wrong password.
ER11	UID does not match	Two UID in controller are not matched.
ER12	UID error in config file	UID in player does not match the one in controller.
ER13	Controller is not fully unlocked/mismatched UID	Controller is not fully unlocked.
ER14	UID error in SD card	UID in SD card does not match the one on controller.

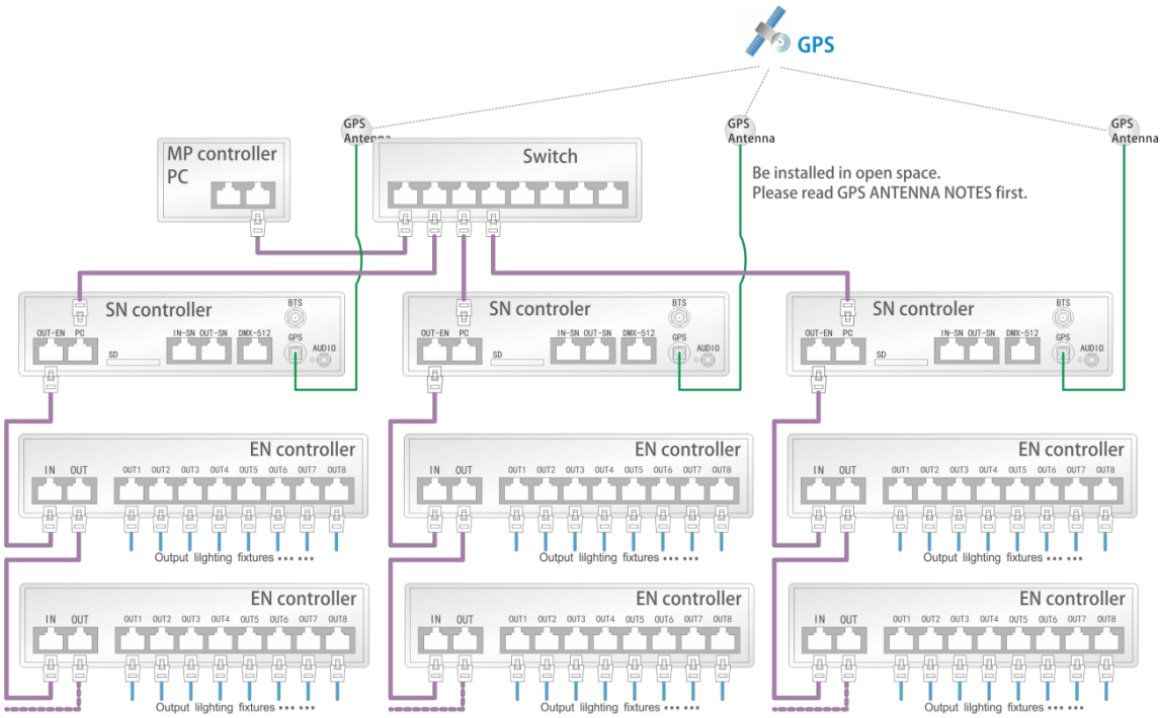
3. CONNECTION INSTRUCTION

3.1. INPUT PORT



Interface	Function
RJ45 port (OUT-EN)	Output to connect EN controller. Top left light: Indicator light, flicker synchronously with system frame rate. Top right light: Data light, flicker indicates normal connection and data transmission between master controller and slave controller.
RJ45 port (PC)	While connected with PC, it is used as an alternative scheme of the system. And it receive and send data in priority. Top left light: Nonuse. Top right light: Data light, flicker indicates normal connection and data transmission between PC and master controller.
SD	SD card slot. The yellow light flickers while the controller reads data properly.
RJ45 port (IN / OUT-SN)	Input / output of cascade.
DMX-IN	Accessing and be controlled by DMX512 console.
GPS	GPS antenna interface. (Optional function.)
BTS	Reserved interface.
AUDIO	Reserved interface.

3.2. GPS CONNECTION AND NOTES



RJ45(T568B) UTP network cable (purple) must less than 100m. It will be 5kms with optical fiber.
Output lighting fixtures cable refer to Signal Cables Connection Notes.

2m GPS antenna is provided. User can also purchase GPS marine antenna with standard SMA interface according to on-site engineering requirement. The longer the antenna is, the more difficult to search satellite.

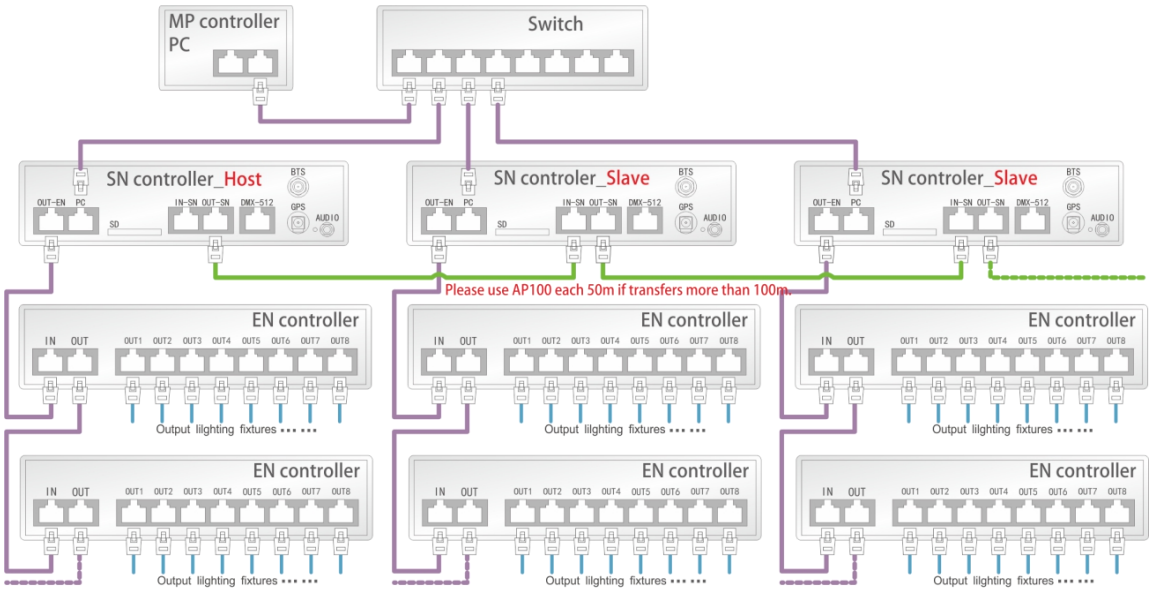
Notes:

a) GPS Antenna should be installed in open space to guarantee view angle within 30 degree, there is no big shades (such as trees, iron towers, buildings etc.). GPS Antenna should be more than 2m away from the metal objects which size is bigger than 20cm.

b) Due to the satellite appearing on the equator more than other places, it preferably put the GPS antenna in the south of location for the north hemisphere.

c) Please don't put GPS antenna around other transmitting and receiving equipment to avoid radiation of other transmitting antenna facing to GPS antenna. Please keep them 2m away with each other.

3.3. CASCADE CONNECTION



RJ45(T568B) UTP network cable (purple) must less than 100m. It will be 5kms with optical fiber.
Output lighting fixtures cable refer to Signal Cables Connection Notes.

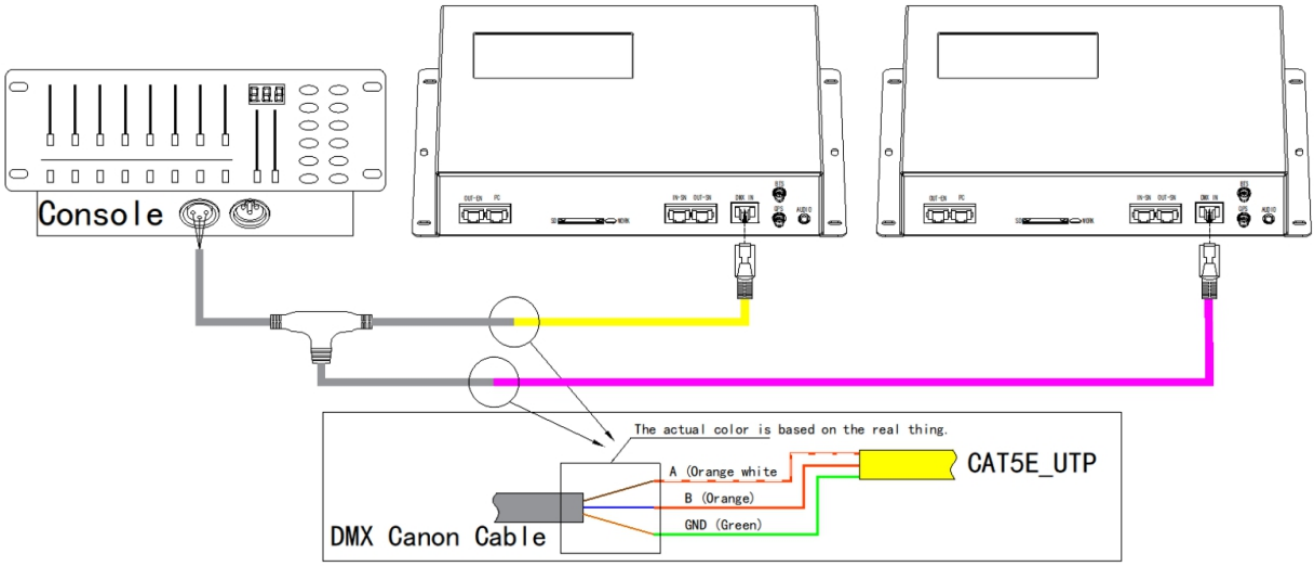
3.4. DMX CONNECTION

User can adjust the effect, speed and brightness by DMX512 console.

Connection:

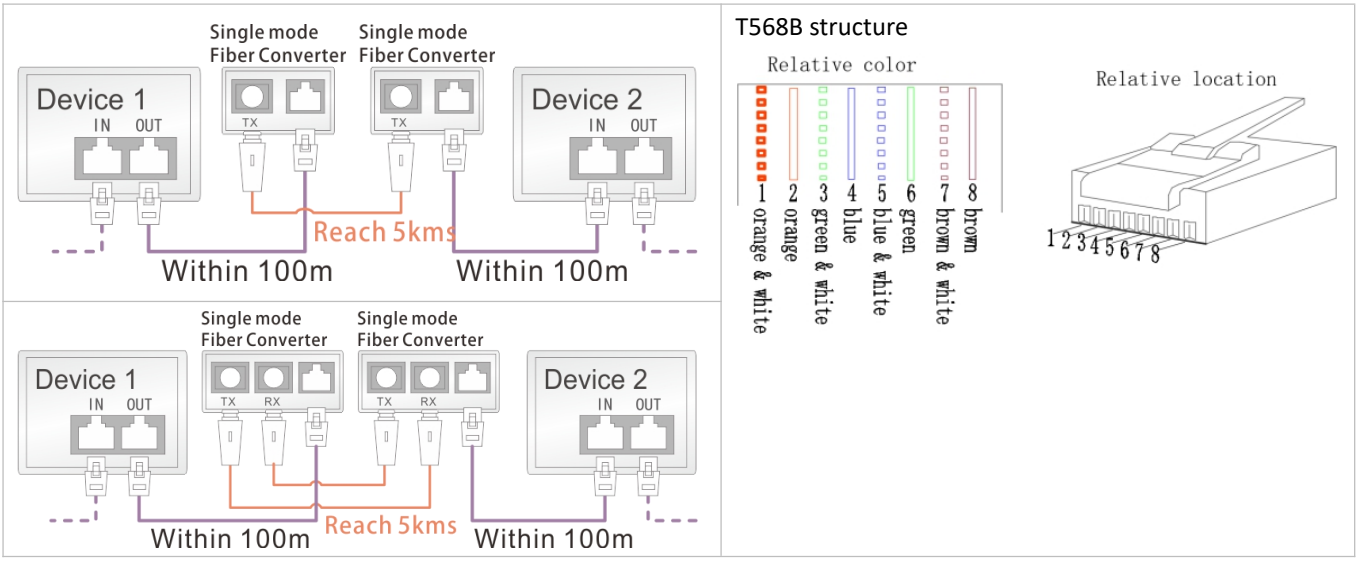
P1 = GND, P2 = D-/B, P3 = D+/A

Operation refers to the “DMX512 DECODING” section.



3.5. OPTICAL FIBER COMMUNICATION

Must use single mode transceivers. User can use single fiber or double fiber (alternative) according to on-site condition. The double fiber transceiver must be connected with two optical fibers. **It cannot use in EN controller when ID is 00 and the connecting position of EN controller and lighting fixture.**



4. BASIC OPERATION

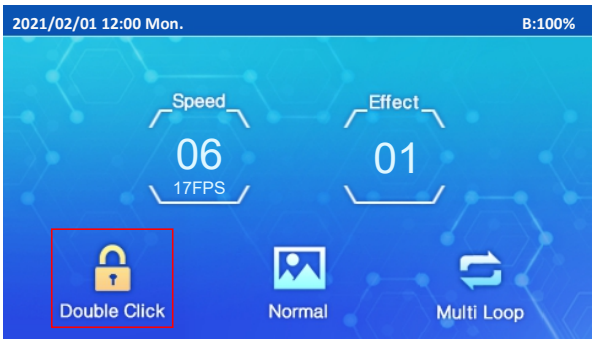
4.1. INTERFACE INTRODUCTION

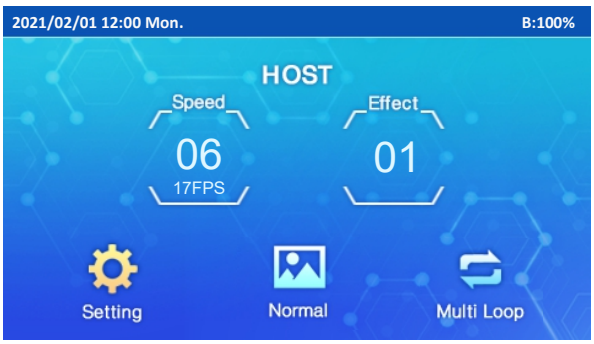
The icon of unsupported functions will not display.

Display	Introduction
Speed	Current speed.
Effect	Current effect.
HOST	Function display.
Setting	Select and enter the setting menu.
Normal	Current control mode.
Multiple / Single Loop	Current Play mode, press to switch.
2021/02/01 12:00 MON.	Current setting date and time.
E05	Error prompt for card reading.
List: Null	Current list of time control.
DMX	Controller access DMX512 console.
GPS:01	Signal strength of GPS satellite.
B:100%	Current brightness of lighting fixture.

4.2. UNLOCK CONTROLLER

Enter the screen saver state after no operation for a period. Double click the icon “Double Click” to unlock main interface.

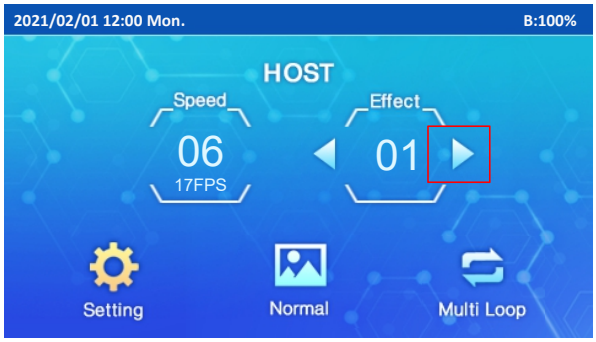


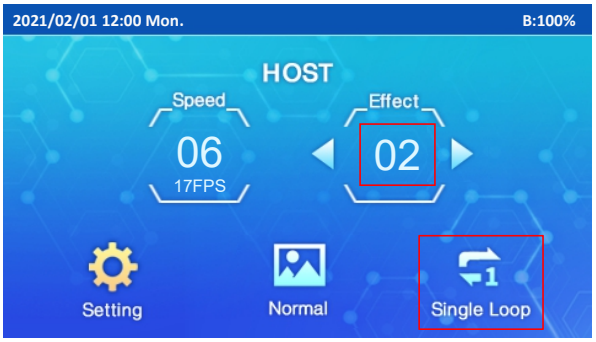


4.3. CONTROL SETTING

4.3.1. EFFECT

Select the number under “Effect”, select ◄ / ► to change effect, and it will be changed from multiple loop to single loop.

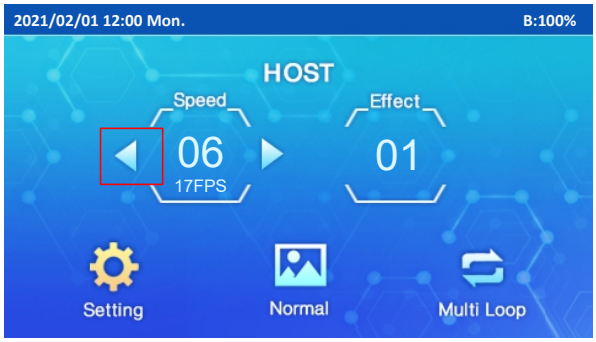


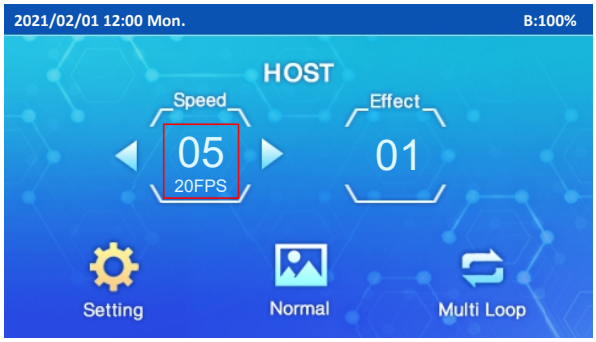


4.3.2. SPEED

Select the number under “Speed”, select ◄ / ► to set it. The less the value, the quicker the speed.

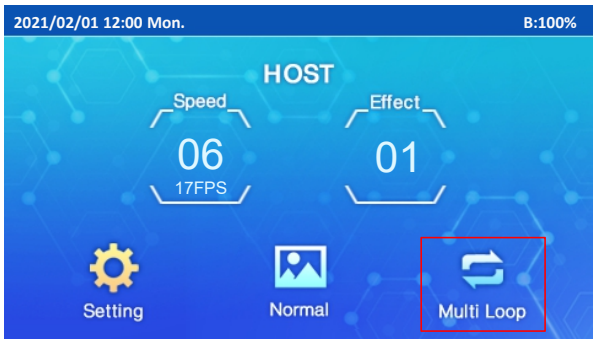
Parameters	Speed															
Interface	03	04	05	06	07	08	09	10	11	12	15	20	30	50	80	99
Frame Rate(ms)	30	40	50	60	70	80	90	100	110	120	150	200	300	500	1000	2000
(fps)	33	25	20	17	14	13	11	10	9	8	7	5	3	2	1	0.5

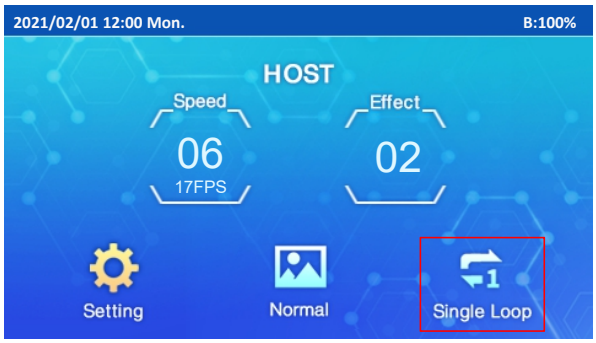




4.3.3. LOOP

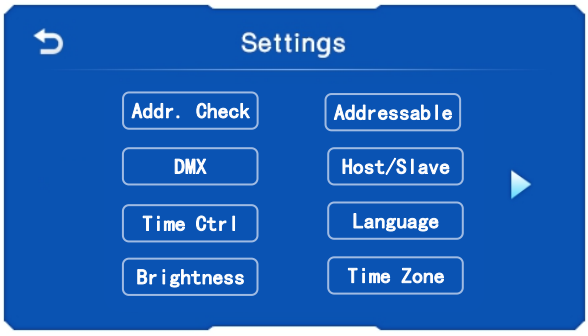
Select “Multi Loop" to switch loop mode. There are Multiple Loop, Single Loop and Random play. Random play is unavailable when the controller supports GPS / BTS functions.

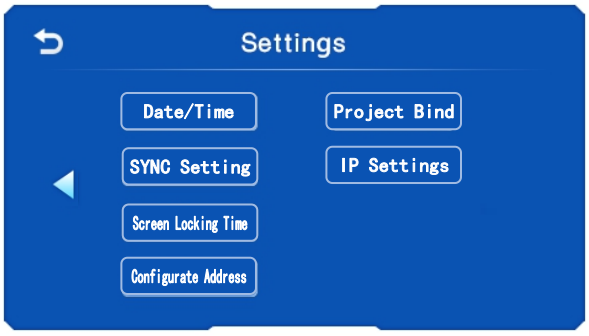




5. MENU SETTING

Select the “Settings” of main interface to enter the menu settings. All Settings are valid in real time.





Selection	Interface	Instructions
Addressing Check	Addressing Check Increment: 0001 Check Mode: Pile up Current LEDS ◄ 0001 ►	Light up the lighting fixture to verify that its address is correct. Check Mode: Pile / Point. Current LEDS: Select ◄ / ► to set value. Or select current LEDS to enter setting interface.
Addressable	Addressable Mode Auto Addressable Again Parameter Setting	Address the lighting fixture.
DMX	DMX Setting ▲ ▲ ▲ 0 0 1 ▼ ▼ ▼ Console reception mode: Digital Console DMX Channel Relation: Many to one	Select ▼ / ▲ to set the address value. (Range: 1 - 504.) Select Digital Console / Push Rod console to set the controller receiving console mode.

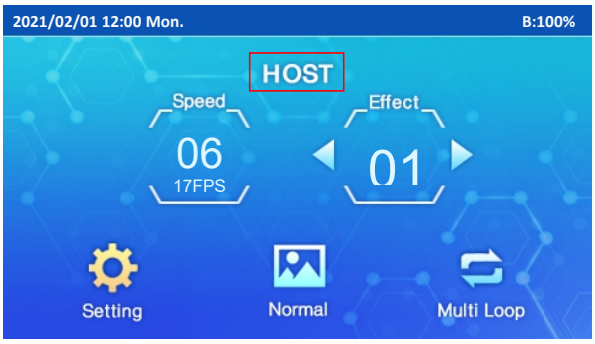
Selection	Interface	Instructions
Host/Slave	Host/Slave	Set the controller to host or slave.
Time Control	Time Control Close SD Card	Set the controller to time control.
Language	LANGUAGE 中文 English	Set the interface language.
Brightness	Brightness Red: ◀100%▶ Green: ◀100%▶ Blue: ◀100%▶ White: ◀100%▶ All: ◀ 100% ▶	Select ◀ / ▶ to set value. (Range is 0%~100%.) 0% is black and 100% is the brightest. All channels are valid independently. For example, "Red/Green/Blue/White/All" are 50/100/100/100/100 respectively. In this case, "All" is set to 50 and red becomes 25.
Time Zone	Time Zone ◀ UTC+8 ▶	Select ◀ / ▶ to set value. Range is -11 - +12. Only apply to GPS synchronization.
Date/Time	Date/ Time 2021/01/01 12:00	Select the value to enter the setting interface. Select ▼ / ▲ to set value. The data and time are updated bases on GPS when the GPS synchronization is enabled.
SYNC Settings	SYNC Setting Sec: ◀ 00 ▶ Msec: ◀ 0000 ▶	Set the synchronization interval for each controller to be received so that all effects are synchronized. Select ◀ / ▶ to set value.
Screen Locking Time	Screen Locking Time ◀ 1 mins ▶	Select ◀ / ▶ to set value. (30 seconds, 1 minute, 5 minutes, 30 minutes and perpetual.)
Configurate Address	/	Select and start addressing the lighting fixtures according to SD card. Please refer to CONFIGURATE ADDRESS.
Project bind	/	Reserved function.
IP Settings	/	Reserved function.

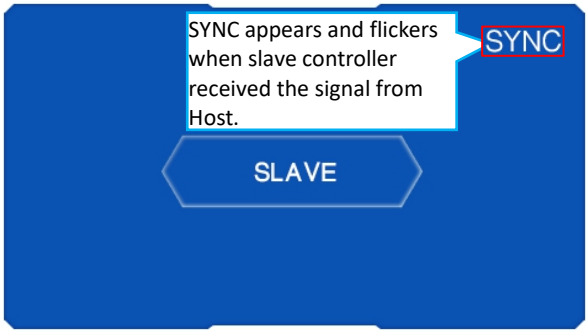
6. ADDITIONAL FUNCTION

6.1. CASCADE CONTROL

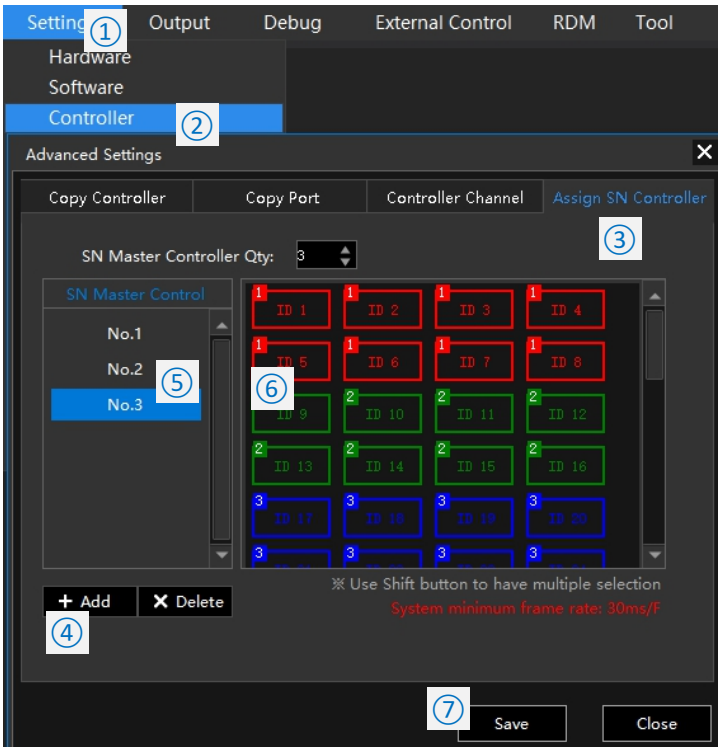
When the project needs to be controlled by multiple cascading controllers, connect the host with slave controllers by cables to make the whole project synchronous.

1. Quickly click HOST on the interface 3 times to enter menu setting. Select HOST to become SLAVE.
2. Connect two controllers by UTP CAT5E for synchronization. Connection refers to the CASCADE CONNECTION section.





3. Setup multiple SN controllers in the LED Player.



① Click “Setting”.
② Click “Controller”.
③ Click “Assign SN Controller”.
④ Click “+Add” to increase SN controller.
⑤ Click “No.2”.
⑥ Click “ID9, ID10, ID11, ID12, ID13, ID14, ID15,ID16”.
⑦ Click “Save” and close the window.
⑧ Output the SD card file and copy it into SD card.

Multiple master controls can be repeated point 5 and 6 operation.

Note, if there is only one SN controller in the project, we can skip this setting and directly output the SD card file and copy.

6.2. DMX512 CONTROL

User can adjust the effect, speed and brightness by DMX512 console.

The same or different addresses can be set in the controller, so that DMX512 console is able to control several controllers with same or different effects. The actual effect is determined by SD card and mode selection of the controller. Connection refers to the DMX CONNECTION section.

Select ▼ / ▲ to set DMX address value.

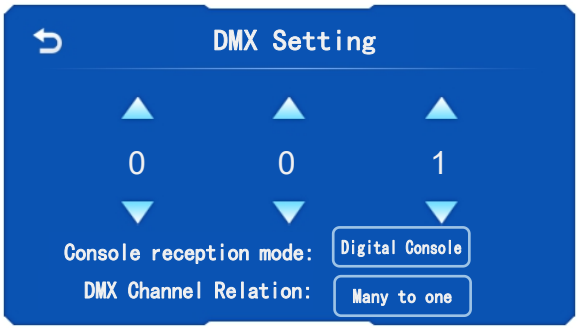
Formula of address setting: **(N-1)* 12 + 1**. N represents the Nth controller.

Effect 00 is black and Effect 99 is playing in multiple loop.

Select Filter / Immediate to set the controller receiving console mode.

Push Rod Console: When DMX console stops operating for 0.5 seconds, it responds to the control lighting fixture.

Digital Console: It responds to the control lighting fixture of DMX console parameters.



Range of console values: One to one. (Channel values are incremented by ones.)

Channel	01	02		03			04		05		06	07	08		09		10		11		12	
		Speed		Control Mode			Effect		Effect				Bright._Overall		Bright._CH. R		Bright._CH. G		Bright._CH. B		Bright._CH. W	
		Set	Range	Set		Range	Set	Range	Set	Range			Set	Range	Set	Range	Set	Range	Set	Range	Set	Range
Position of Push Rod	None	99	99 ~ 255	Dynamic	Audio	4 ~ 255	90	9 ~ 255	09	9 ~ 255	None	None	100	100 ~ 255	100	100 ~ 255	100	100 ~ 255	100	100 ~ 255	100	100 ~ 255
		80	80 ~ 98				80	8	08	8			99	99	99	99	99	99	99	99	99	99
		50	50 ~ 79										98	98	98	98	98	98	98	98	98	98
		30	30 ~ 49		Voice	3	70	7	07	7			97	97	97	97	97	97	97	97	97	97
		20	20 ~ 29										96	96	96	96	96	96	96	96	96	96
		15	15 ~ 19				60	6	06	6			95	95	95	95	95	95	95	95	95	95
		12	12 ~ 14										⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
		11	11	Spectrum	Audio	2	50	5	05	5												
		10	10																			
		9	9				40	4	04	4			07	7	07	7	07	7	07	7	07	7
		8	8										06	6	06	6	06	6	06	6	06	6
		7	7		Voice	1	30	3	03	3			05	5	05	5	05	5	05	5	05	5
		6	6										04	4	04	4	04	4	04	4	04	4
		5	5				20	2	02	2			03	3	03	3	03	3	03	3	03	3
		4	4										02	2	02	2	02	2	02	2	02	2
		3	0 ~ 3	Normal		0	10	1	01	1			01	1	01	1	01	1	01	1	01	1
							00	0	00	0			00	0	00	0	00	0	00	0	00	0

Range of console values: Ten to one. (Channel values are incremented by tens.)

Channel	01	02		03				04		05		06	07	08		09		10		11		12	
		Speed		Control Mode				Effect		Effect				Bright._Overall		Bright._CH. R		Bright._CH. G		Bright._CH. B		Bright._CH. W	
		Set	Range	Set		Range		Set	Range	Set	Range			Set	Range	Set	Range	Set	Range	Set	Range	Set	Range
Position of Push Rod	None	99	240 ~ 255	Dynamic	Audio	40 ~ 255		90	90 ~ 255	09	90 ~ 255	None	None	100	200 ~ 255	100	200 ~ 255	100	200 ~ 255	100	200 ~ 255	100	200 ~ 255
		80	230 ~ 239					80	80 ~ 89	08	80 ~ 89			99	198 ~ 199	99	198 ~ 199	99	198 ~ 199	99	198 ~ 199	99	198 ~ 199
		50	220 ~ 229											98	196 ~ 197	98	196 ~ 197	98	196 ~ 197	98	196 ~ 197	98	196 ~ 197
		30	210 ~ 219		Voice	30 ~ 39		70	70 ~ 79	07	70 ~ 79			97	194 ~ 195	97	194 ~ 195	97	194 ~ 195	97	194 ~ 195	97	194 ~ 195
		20	200 ~ 209											96	192 ~ 193	96	192 ~ 193	96	192 ~ 193	96	192 ~ 193	96	192 ~ 193
		15	150 ~ 199					60	60 ~ 69	06	60 ~ 69			95	190 ~ 191	95	190 ~ 191	95	190 ~ 191	95	190 ~ 191	95	190 ~ 191
		12	120 ~ 149											⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
		11	110 ~ 119	Spectrum	Audio	20 ~ 29		50	50 ~ 59	05	50 ~ 59												
		10	100 ~ 109																				
		9	90 ~ 99					40	40 ~ 49	04	40 ~ 49			07	14 ~ 15	07	14 ~ 15	07	14 ~ 15	07	14 ~ 15	07	14 ~ 15
		8	80 ~ 89		Voice	10 ~ 19								06	12 ~ 13	06	12 ~ 13	06	12 ~ 13	06	12 ~ 13	06	12 ~ 13
		7	70 ~ 79					30	30 ~ 39	03	30 ~ 39			05	10 ~ 11	05	10 ~ 11	05	10 ~ 11	05	10 ~ 11	05	10 ~ 11
		6	60 ~ 69											04	8 ~ 9	04	8 ~ 9	04	8 ~ 9	04	8 ~ 9	04	8 ~ 9
		5	50 ~ 59					20	20 ~ 29	02	20 ~ 29			03	6 ~ 7	03	6 ~ 7	03	6 ~ 7	03	6 ~ 7	03	6 ~ 7
		4	40 ~ 49	Normal		0 ~ 9								02	4 ~ 5	02	4 ~ 5	02	4 ~ 5	02	4 ~ 5	02	4 ~ 5
		3	0 ~ 39					10	10 ~ 19	01	10 ~ 19			01	2 ~ 3	01	2 ~ 3	01	2 ~ 3	01	2 ~ 3	01	2 ~ 3
								00	0 ~ 9	00	0 ~ 9			00	0 ~ 1	00	0 ~ 1	00	0 ~ 1	00	0 ~ 1	00	0 ~ 1

Range of console values: Many to one. (Channel values are evenly distributed by level.)

Channel	01	02		03				04		05		06	07	08		09		10		11		12	
		Speed		Control Mode				Effect		Effect				Bright._Overall		Bright._CH. R		Bright._CH. G		Bright._CH. B		Bright._CH. W	
		Set	Range	Set		Range		Set	Range	Set	Range			Set	Range	Set	Range	Set	Range	Set	Range	Set	Range
Position of Push Rod	None	99	240 ~ 255	Dynamic	Audio	204 ~ 255		90	225 ~ 255	09	225 ~ 255	None	None	100	200 ~ 255	100	200 ~ 255	100	200 ~ 255	100	200 ~ 255	100	200 ~ 255
		80	224 ~ 239					80	200 ~ 224	08	200 ~ 224			99	198 ~ 199	99	198 ~ 199	99	198 ~ 199	99	198 ~ 199	99	198 ~ 199
		50	208 ~ 223											98	196 ~ 197	98	196 ~ 197	98	196 ~ 197	98	196 ~ 197	98	196 ~ 197
		30	192 ~ 207		Voice	154 ~ 203		70	175 ~ 199	07	175 ~ 199			97	194 ~ 195	97	194 ~ 195	97	194 ~ 195	97	194 ~ 195	97	194 ~ 195
		20	176 ~ 191											96	192 ~ 193	96	192 ~ 193	96	192 ~ 193	96	192 ~ 193	96	192 ~ 193
		15	160 ~ 175					60	150 ~ 174	06	150 ~ 174			95	190 ~ 191	95	190 ~ 191	95	190 ~ 191	95	190 ~ 191	95	190 ~ 191
		12	144 ~ 159											⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
		11	128 ~ 143	Spectrum	Audio	103 ~ 153		50	125 ~ 149	05	125 ~ 149												
		10	112 ~ 127																				
		9	96 ~ 111					40	100 ~ 124	04	100 ~ 124			07	14 ~ 15	07	14 ~ 15	07	14 ~ 15	07	14 ~ 15	07	14 ~ 15
		8	80 ~ 95		Voice	52 ~ 102								06	12 ~ 13	06	12 ~ 13	06	12 ~ 13	06	12 ~ 13	06	12 ~ 13
		7	64 ~ 79					30	75 ~ 99	03	75 ~ 99			05	10 ~ 11	05	10 ~ 11	05	10 ~ 11	05	10 ~ 11	05	10 ~ 11
		6	48 ~ 63											04	8 ~ 9	04	8 ~ 9	04	8 ~ 9	04	8 ~ 9	04	8 ~ 9
		5	32 ~ 47					20	50 ~ 74	02	50 ~ 74			03	6 ~ 7	03	6 ~ 7	03	6 ~ 7	03	6 ~ 7	03	6 ~ 7
		4	16 ~ 31	Normal		0 ~ 51								02	4 ~ 5	02	4 ~ 5	02	4 ~ 5	02	4 ~ 5	02	4 ~ 5
		3	0 ~ 15					10	25 ~ 49	01	25 ~ 49			01	2 ~ 3	01	2 ~ 3	01	2 ~ 3	01	2 ~ 3	01	2 ~ 3
								00	0 ~ 24	00	0 ~ 24			00	0 ~ 1	00	0 ~ 1	00	0 ~ 1	00	0 ~ 1	00	0 ~ 1

If the channel color sequence of lighting fixtures is not R-G-B-W, the brightness channel shall be switched accordingly.

6.3. TIME CONTROL

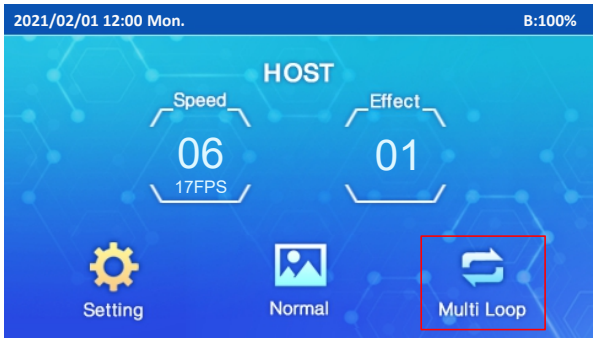
It has time control function. After enabling time control, the specified effect can be triggered in a specified time.

Enter "Parameter Setting" - "Time Control" function to enable.

Maximum time control lists of player can be 100, and maximum 10 effects can be set in each list.

Noted: This function only applies to pattern effects.

Mode	Description	Shows
SD Card Time Control	The light is black while waiting. The controller will switch to corresponding effect mode when it reaches the time set. (The “Normal” and “Effect” buttons are disabled.)	

Mode	Description	Shows
Normal	Manually set the time control off, it will become controllable.	

7. ADDRESSABLE

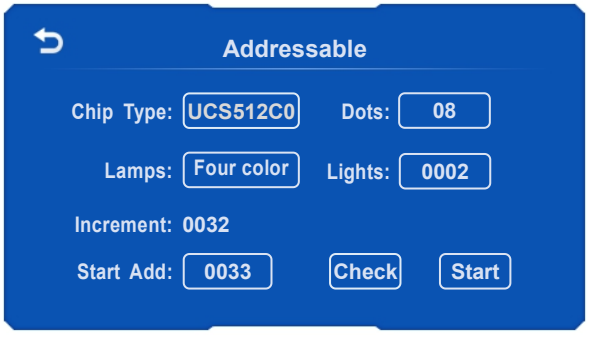
7.1. CHIP SUPPORTED

Chip	Addressing	Custom Channel	Set parameters					
			No signal State	Power-on Setting	Current	Forward	Issue	GAMMA
UCS512A	√	×	×	×	×	×	×	×
UCS512B	√	×	×	×	×	×	×	×
UCS512C0	√	×	×	×	×	×	×	×
UCS512C4	√	×	×	√	×	×	×	×
UCS512CN	√	×	√	√	×	×	×	×
UCS512D	√	×	√	√	√	×	×	×
UCS512E0	√	√	√	√	√	√	×	×
UCS512G4	√	×	×	×	×	×	×	×
UCS512G6	√	×	×	×	×	×	×	×
DMX512AP	√	×	×	×	×	×	×	×
SM16511	√	×	×	×	×	×	×	×
SM16512	√	×	×	×	×	×	×	×
SM16520	√	×	×	×	×	×	×	×
SM16500	√	×	√	√	×	×	×	×
SM17500	√	√	√	√	√	×	×	×
SM17512	√	×	√	√	√	×	×	×
SM17522	√	×	√	√	√	×	×	×
SM18522P	√	×	√	√	√	×	×	×
SM18522PH	√	×	√	√	√	×	×	×
SW-D	√	×	×	×	×	×	×	×
Hi512A0	√	√	×	×	×	×	×	×
Hi512A4	√	×	√	√	×	×	×	×
Hi512A6	√	×	√	√	×	×	×	×
Hi512D	√	×	√	√	√	×	×	×
TM512AB3	√	×	×	×	×	×	×	×
TM512AL1	√	×	×	×	×	×	×	×
TM512ACx	√	×	×	×	×	×	×	×
TM512AD	√	×	√	√	√	×	×	×
QED512P	√	×	√	√	√	×	×	×
GS8511	√	×	×	×	×	×	×	×
GS8512	√	×	×	×	×	×	×	×
GS8513	√	×	×	×	√	×	×	×
GS8515	√	×	×	×	√	×	×	×

7.2. ADDRESSING SETTINGS

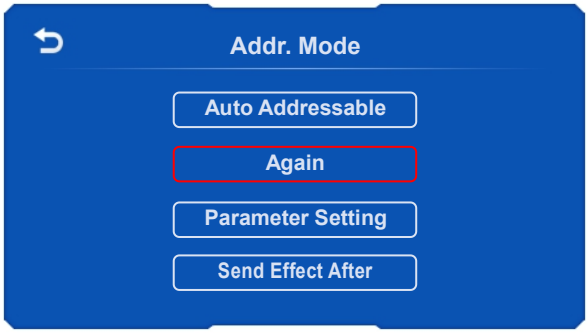
Option	Setting	Instructions
Chip type	Chip select P1: SW-D, DMX512AP, UCS512A, UCS512B, UCS512C0, UCS512C4, UCS512D, UCS512E-SELF P2: SM16500, SM16511, SM16512, SM16520, SM17512, SM17522, SM17500-NOR, SM17500-SELF P3: HI512A0-NOR, TM512AB3, H512A0-SELF, TM512ACX, HI512A4, TM512AD, HI512A6, TM512AL1 P4: QED512P, GS8511, Hi512D, GS8512, UCS512CN, GS8513, Hi512E, GS8515 P5: SM18522P, SM18522PH, UCS512G4, UCS512G6	Select the chip of lighting fixture.
Dots	Dots ◄ 1 ►	Set the pixel of a DMX512 chip. Select ◄ ► to set value.
Lamps	/	According to the lighting Settings, select monochrome, two-color, three-color, four-color options.
Lights	Lights ▲ ▲ ▲ ▲ 0 0 0 1 ▼ ▼ ▼ ▼	Addressing the Nth lighting fixture. Select ▼ ▲ to set value.
Increment	/	It can be calculated automatically according to the number of lighting fixtures, dots and lights. Manual setting is not supported.
Start Add	Starting address ▲ ▲ ▲ ▲ 0 0 0 1 ▼ ▼ ▼ ▼	It can be calculated automatically according to the number of lighting fixtures, dots and lights. Manual setting is also supported. Select ▼ ▲ to set value.
Check	/	Select and enter the addressing check interface.
Start	/	Select to start addressing the lighting fixture.

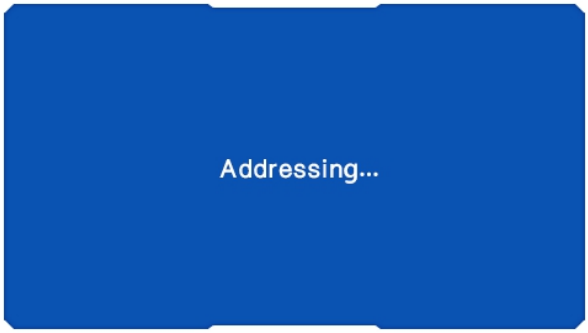
E.g. Addressing the second 8 pixels/meter lighting fixture with 4-channels UCS512C0 chip.



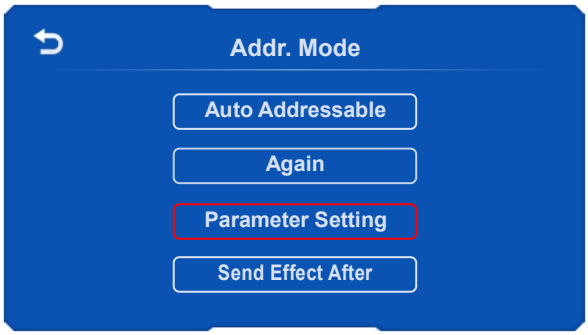
7.3. RE-ADDRESSING

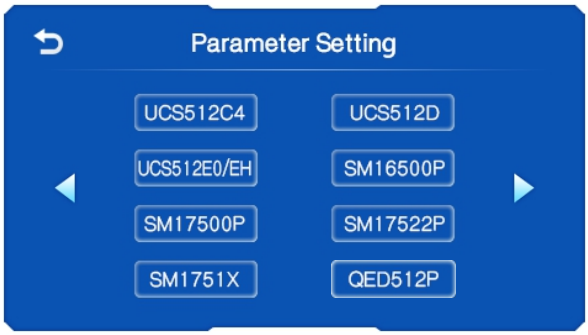
Select and addressing the lighting fixture again according to the addressable setting.





7.4. PARAMETER SETTINGS





The option is invalid if the chip does not supported.

	Interface	Introduction
Page 1	Red: 255 Green: 255 Blue: 255 White: 255 Byte Select: 4 No Signal: Last Frame Write	Color RGBW: Select to set RGBW gray. Byte Select: Select to set channel of chip. No signal: Last Frame: The lighting fixture stays the last frame color. Power on effect: The lighting fixture stays the color power-on.
Page 2	Red: 15 Green: 15 Blue: 15 White: 15 Gain Mode: Null Chip Type: Other Write	Current RGBW: Select to set the current of RGBW. Gain Mode: Select and select the current gain level. It is only for SM17500. Chip Type: Select and select the type of forward chip.
Page 3	Forward Times: Protocol: Zero Code Auto addressing: Step: Write Self-Channel Setting	Forward Times: Select and set forward time. Protocol: Select and set forward protocol (zero code / DMX). Auto addressing: Select and set whether to turn on the step setting. Step: Select and set the step value. It is only for SM17522P. Self-Chan Setting: Select to enter the Self-Channel setting interface. Write: Select to set parameter into the lighting fixture.

Self-Channel Setting: Select and set the parameter in real-time. It may cause the lighting fixture work improperly. Please take caution!

7.5. SUCCESSFULLY ADDRESSED AND SET PARAMETERS

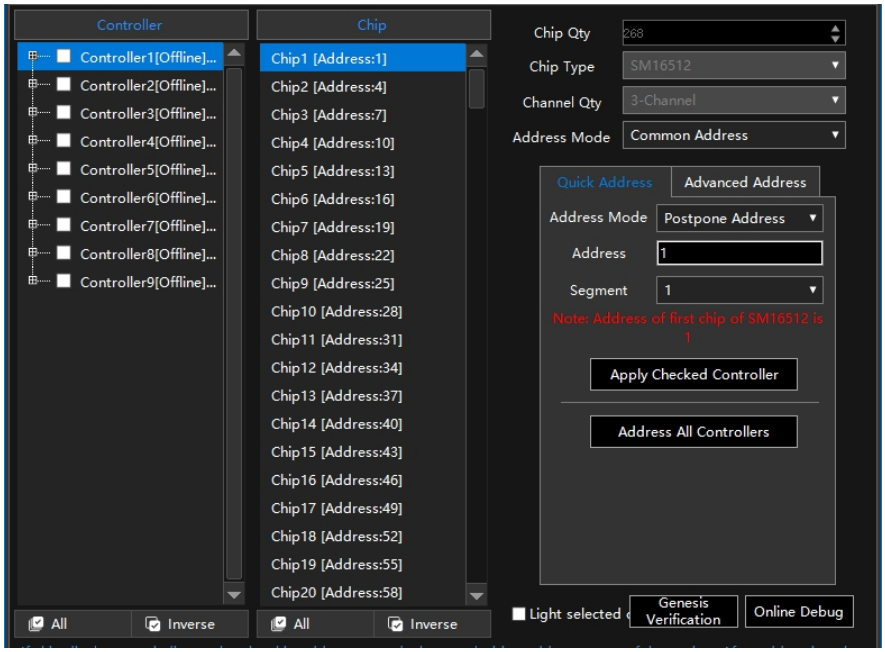
Chip	Lighting color after power on	Addressed		Byte + No signal + No signal		Current parameter		Self-Channel Setting	
		First chip	Other chip	First chip	Other chip	First chip	Other chip	First chip	Other chip
UCS512A	White	Blue	Blue	-	-	-	-	-	-
UCS512A1	White	Blue	Blue	-	-	-	-	-	-
UCS512A2	White	Blue	Blue	-	-	-	-	-	-
UCS512B3	White	Blue	Blue	-	-	-	-	-	-
UCS512C	Custom	White	White	-	-	-	-	-	-
UCS512C0	-	White	White	-	-	-	-	-	-
UCS512C3	Custom	White	White	Red	Red	-	-	-	-
UCS512C4	Custom	White	White	Red	Red	-	-	-	-
UCS512CN	Custom	Yellow	White	Yellow	Power on	-	-	-	-
UCS512D	Custom	Yellow	White	Yellow	Power on	Yellow	Red	-	-
UCS512E0	Custom	Yellow	White	Yellow	Power on	-	-	Yellow	Green
UCS512EH	Custom	Yellow	White	Yellow	Power on	Yellow	Red	Yellow	Green
UCS512G4	Custom	Yellow	White	White (Or custom)	White (Or custom)	White	White	-	-
UCS512G6	Custom	Yellow (Or custom)	White (Or custom)	White (Or custom)	White (Or custom)	White	White	-	-
DMX512AP	-	White	White	-	-	-	-	-	-
SM16512	-	Green	Green	-	-	-	-	-	-
SM16511	-	Green	Green	-	-	-	-	-	-
SM16520	-	Green	Green	-	-	-	-	-	-
SM16500	Custom	Red	Green	Red	Power on	-	-	-	-
SM17500	Custom	Red	Green	Red	Power on	Red	Yellow	Red	Purple
SM17512	Custom	Red	Green	Blue	Blue	-	-	-	-
SM17522	-	Red	Green	Red	Blue	Red	Yellow	-	-
SM18522	Custom	Red	Green	Blue	Blue	-	-	-	-
SM18522PH	-	Red	Green	Red	Blue	Red	Yellow	-	-
SW-D	-	Yellow	Green	-	-	-	-	-	-
Hi512A4	Custom	Red	Green	Red_	Green	-	-	-	-
Hi512A6	Custom	Red	Green	Red	Green	-	-	-	-
Hi512A0	-	White	White	White	White	-	-	-	-
Hi512D	-	Red	Green	Green	Green	Green	Green	-	-
Hi512E	-	Red	Green	Green	Green	Green	Green	-	-
TM512AB3	White	Blue	Blue	-	-	-	-	-	-
TM512AL1	White	Blue	Blue	-	-	-	-	-	-
TM512AC0	-	White	White	-	-	-	-	-	-
TM512AC2	Custom	White	White	-	-	-	-	-	-
TM512AC3	Blue	White	White	-	-	-	-	-	-
TM512AC4	Blue	White	White	-	-	-	-	-	-
TM512AD	Blue	Yellow	White	Yellow	Power on	Yellow	Red	-	-
GS8512	Custom	Red	Cyan	-	-	-	-	-	-
GS8513	Red+Cyan	Red	Cyan	-	-	-	-	-	-
GS8515	Red+Cyan	Red	Cyan	-	-	-	-	-	-

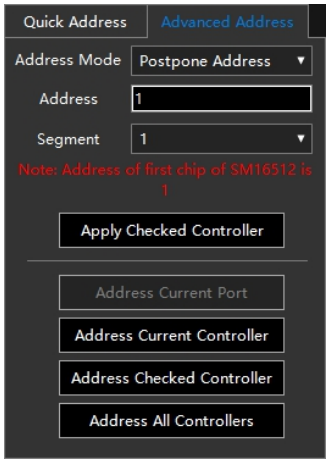
7.6. ADDRESSING IN LED PLAYER

Correct access to controllers and open LED Player. Click the “Address” of “ Debug”, and pop the window.

The SN controller no need to enter the addressing state.

Note: If the controller is offline, there is a probability that the address data cannot be saved successfully.





Controllers	Controller	It shows the number of controllers in the project automatically. [Online] is that the controllers connecting properly. [Offline] is that the controllers cannot address the lighting fixture. If the chip is not DMX series, the addressing interface becomes unavailable. It can be modified in SETTINGS.
	The gray chip	The chip will not be able to set, if its address is outside the actual routing address of the project.
	Chip	It shows the number/address of chip.
	Online Debug	Click to jump into Online Debugging interface.
Parameter	Chip Qty	t will be the number of driving pixels set in LED Player “Settings” while first be used.
	Chip Type	It will be the chip type set in LED Player “Settings” while first be used.
	Channel Qty	Number of chip channels.
	Address Option	Quick Address and Advanced Address.
	Address Mode	None, Address extension, Use the same address. None: It only saves the address of selected chip. And the others will not changed. Address Extension: It only saves the address of the selected chip. And the others will be extended. Use The Same Address: It saves the same address of all chips.
	Address	set the address of selected chip,and click Save.
	Segment	Set the pixel of selected chip,and click Save.
Address option	Quick Address	Click and address the all chips.
	Advanced Address	Apply Checked Controller: Click and save the chip date of all checked controllers. Address Current Port: Click and address the chips of selected port. Address Current Controller: Click and address the chips of selected controller. Address Checked Controller: Click and address the chips of all checked controllers. Address All Controllers: Click and address all chips.

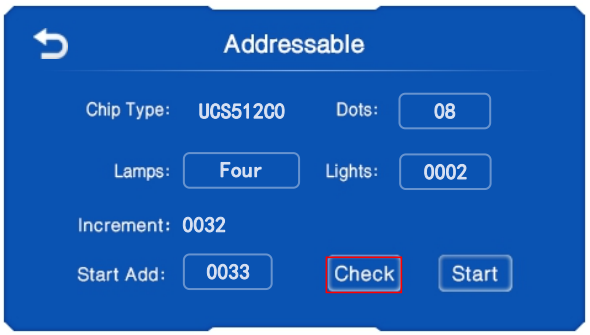
Light-up	Click it and light up the selected chip. Please make sure the address of chips in LED Player are same with the lighting fixtures'.
Address	LED Player shows the progress bar in the lower right corner. It shows "Addressing completed!" when the EN controller receives the addressing data. It is not the lighting fixtures addressing correct. The addressing successful is according to the light color.

8. ADDRESSING CHECK

Enter addressing check interface as below.

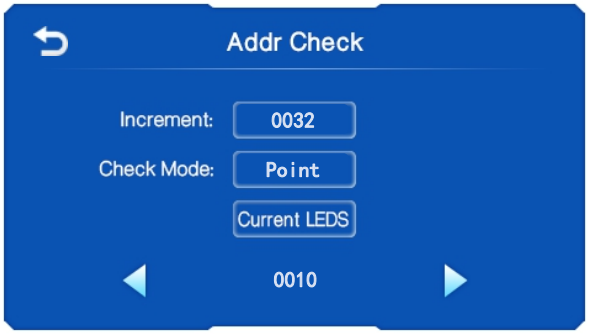
Step 1: Select Addr. Check of Setting.

Step 2: Select the Check of Addressable.



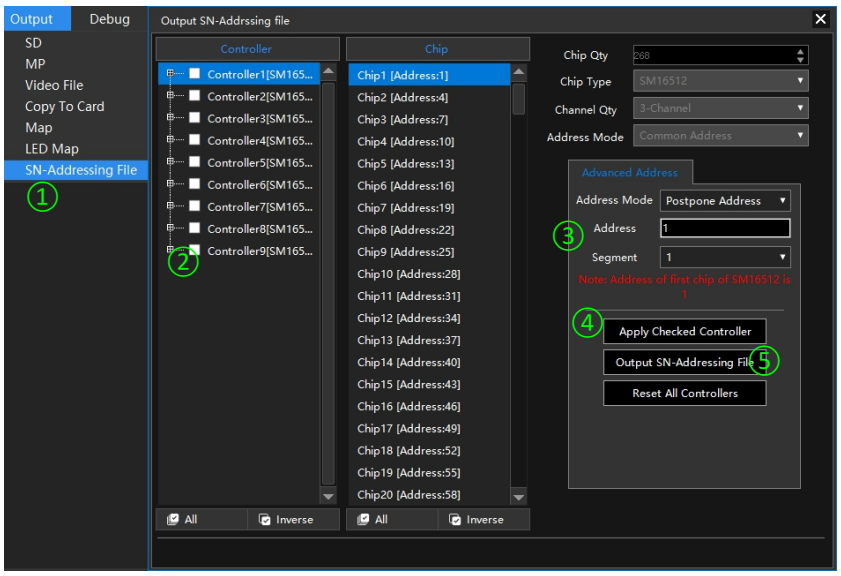
Option	Interface 3	Introduction
Increment	Increment ▲ ▲ ▲ ▲ 0 0 0 1 ▼ ▼ ▼ ▼	Set the total number of channels for each DMX512 chip. Select ▼ / ▲ to set value.
Current LEDS	Current LEDS ▲ ▲ ▲ ▲ 0 0 0 1 ▼ ▼ ▼ ▼	Select ▼ / ▲ to set the value of lighting fixture.
Check Mode	/	Point: Turn on designated lighting fixture. Pile up: Turn on designated lighting fixture and all the ones in front of it. .

E.g. Address the 10th 12 pixels/meter lighting fixture with 3-channels UCS512C0 chip.

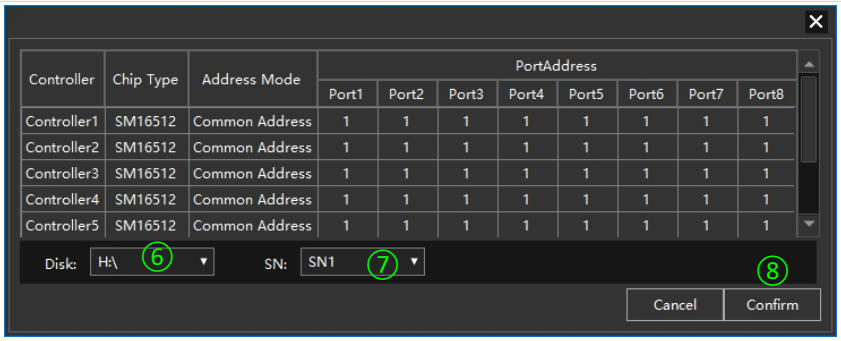


9. CONFIGURATE ADDRESS

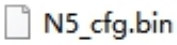
9.1. LED PALYER SETTINGS AND OUTPUT



1. Click “SN-Addredding File” of “Output” in LED Player, and pop the “Output SN-Addressing File” window.
2. Check the controller to be set.
3. Set the address and segment of chip.
4. Click “Apply Checked Controller” key to save.
5. Click “Output SN-Addressing File” key.



6. Input the SD card, and it shows in Disk H:\.
7. Select the SN file to copy, likes SN1 (the 1st), SN2 (the 2nd).
8. Click “Confirm” to copy into SD card.

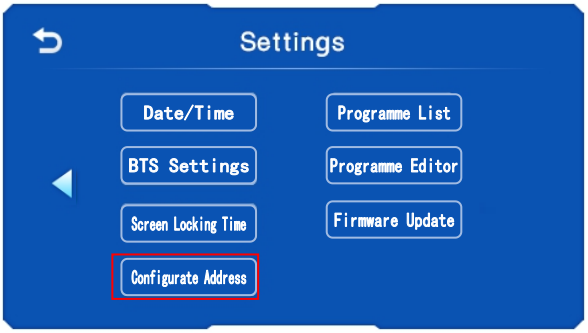


9. N5 cfg.bin file already in SD card.

Note: When each controller drives a variety of chips, it should set the chip in “Hardware Settings”.

9.2. CONTROLLER OPERATION

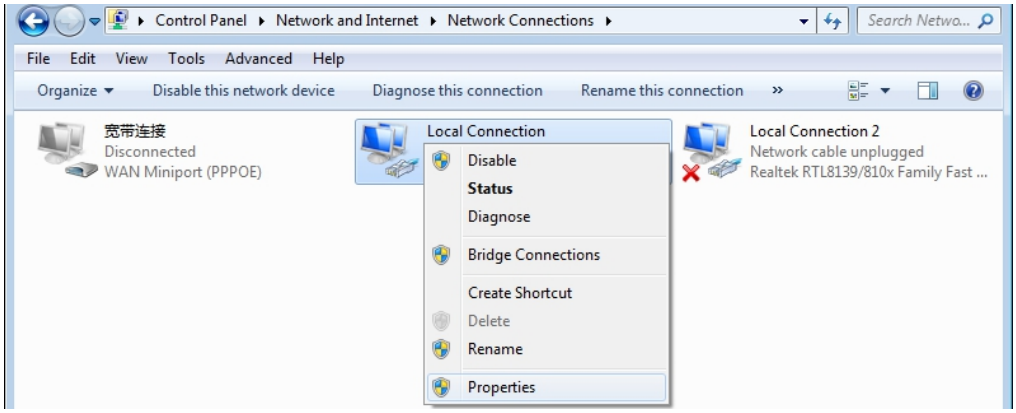
1. Select “Setting” and ► enter into the page 2. select “Configurate Address”, and start to address the lighting fixtures.



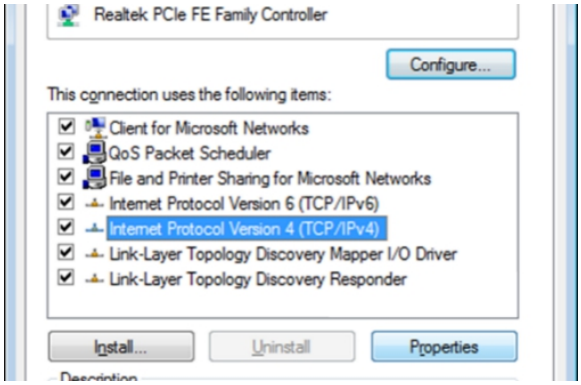
2. After the display shows Successfully select ⮌ to quit. And the lighting fixtures would play animation with the new address.

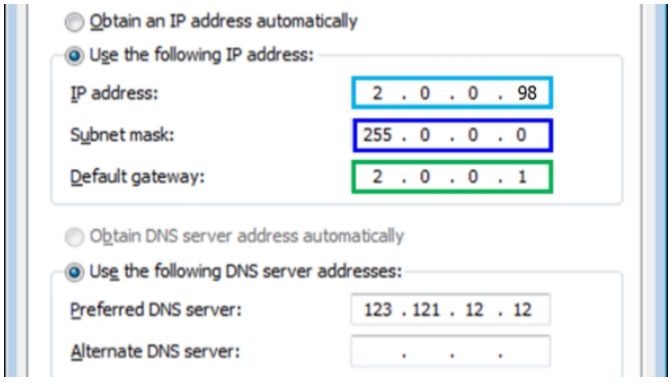
10. IP SETTING IN PC

1. Open “Network Connection” on the PC, right click “Local Connection” and select “Properties”.



2. Select Internet Protocol (TCP/IP), then click “Properties”. Set the IP address as below.

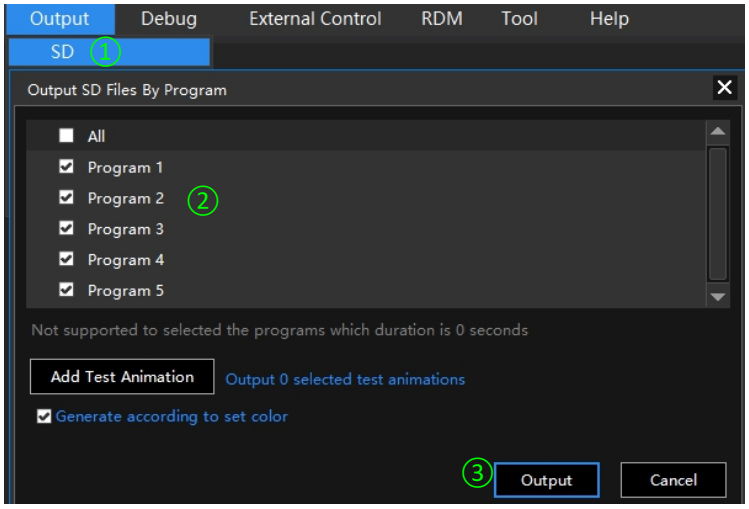




3. Click “OK” after the setting is finished.

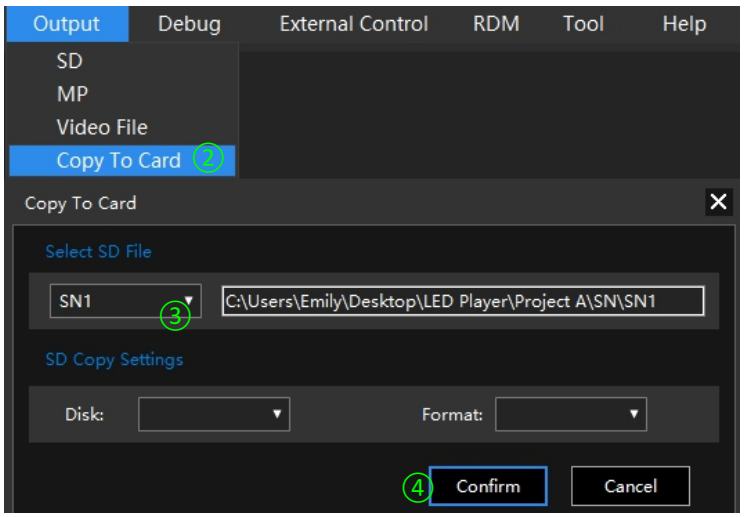
11. OUTPUT SD FILE AND COPY

11.1. OUTPUT SD FILE



① Click “SD” of “Output” in LED Player.
② Select the program need to output.
③ Click “Output”.

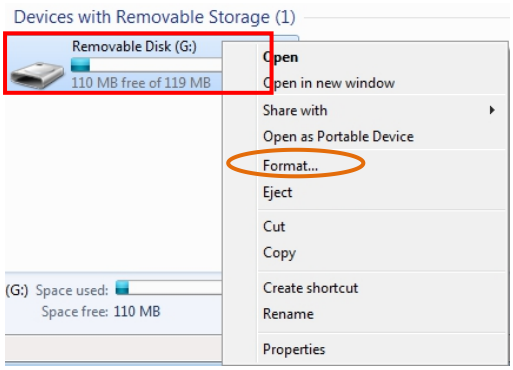
11.2. COPY BY LED PLAYER



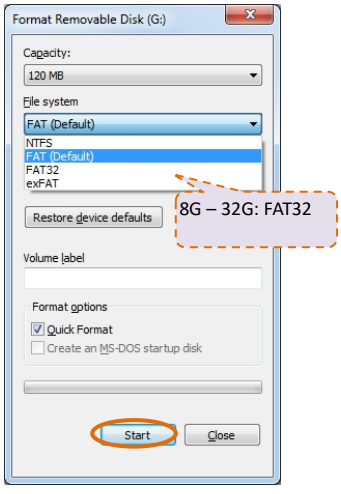
① Input SD card.
② Click “Copy To Card” and open window.
③ Select the controller number. (Automatic reading of the corresponding file.)
④ Click “Confirm”.

11.3. SD CARD COPY

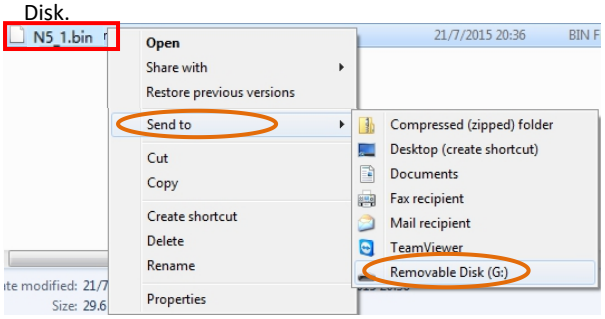
1) Right click the disk where the SD card locates.



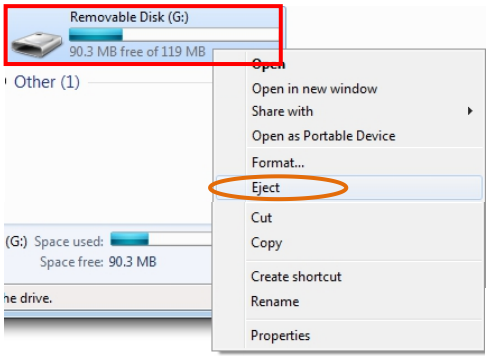
2) Select –FAT (Can check“Quick Format”) and click START.



3) Right click N5_1.Bin file, send the file to Removable Disk.



4) Right click removable disk and select “Eject”.



12. FITTINGS

Shows	Item	Number	Remark
	SD Card	1	
	Power line	1	
	Cat5E (T568B to T568B)	1	Selected
	GPS Antenna	1	Selected