

VIS131.1 VIS131.2 Operation Manual

The digital LED controller is designed to control our LED digital tube. One controller can control 8pcs LED digital tube. The controller together with the LED digital tube can make colorful and dynamic light scenery effects. It can be controlled by DMX controller and Art-net.

A, Parameter Of LED digital tube controller system

LED digital tube controller specification :

Power input: AC120V/240V 60Hz/50Hz

Power consumption: 350W max

Power output: DC12V, eight 3-pin output power cable with female connector. Each output power cable connect 1 LED tube

DMX input and output: 3-pin male XLR socket and 3-pin female XLR socket

Types of lights can be controlled: 1 meter tube light and 2 meter tube light

Weight: 3.4kgs

Dimension: L49*W27*H7.2cm

2×8 character LCD display

Built-in microphone

IR remote control available

Control: 512 DMX console and Art-net control

- AC120V /AC 240V input voltage switch

- LCD display for DMX addressing and work mode setting

- Universal DMX512 (1990) multiplexed digital control

- Selectable 24 jumping modes&24 dreaming modes&24 sound active modes in stand alone mode

LED digital tube specification :

Power input: DC12V, 3-pin input power cable with male connector

Power consumption: 18W per LED tube---(1M); 36W per LED tube---(2M)

LEDs: 54pcs 0.164W(3 in 1)---(1M); 108pcs 0.164W(3 in 1)---(2M)

Weight: 0.26kg---(1M); 0.5kg---(2M)

Dimension: Ø25*1000mm---(1M); Ø25*2000mm---(2M)

Pixels: 27 pixels---(1M); 54 pixels---(2M)

Each pixel of LED tube can be controlled individually via Art-net control

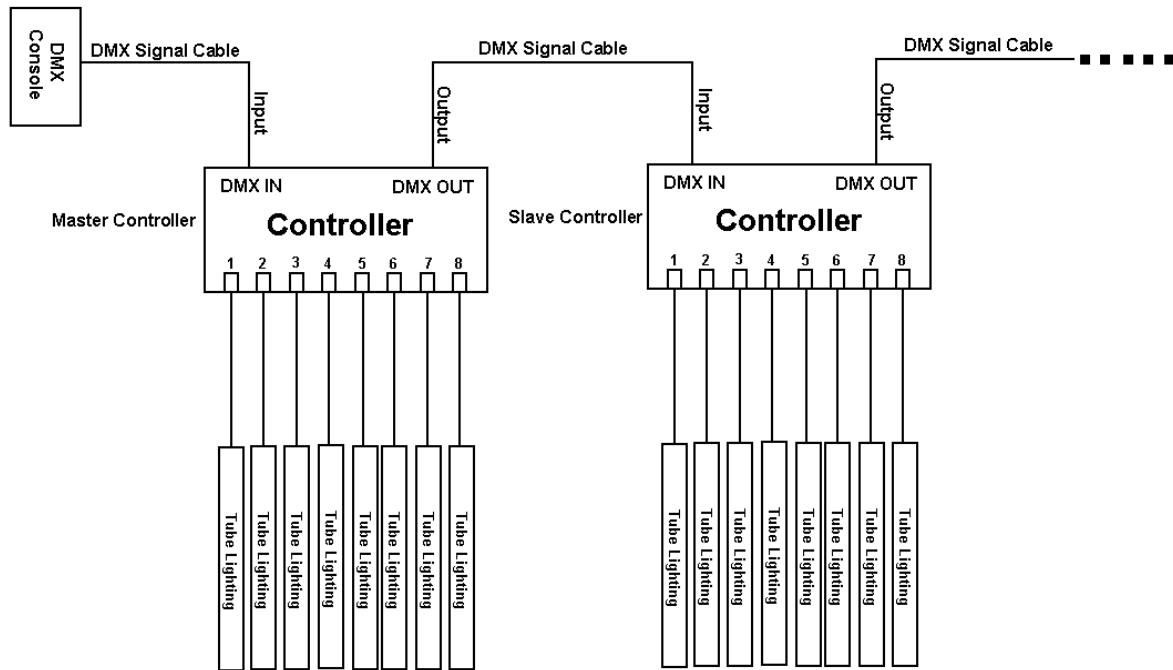
Color of tube: Clear PC

Visible for 360 degree

Each 3-pin input power cable can be extended to 20 meters at most

B, All the system controlled by DMX controller

1. The link picture for the total LED digital tube controller system:



Note:

- 1) Every controller has 8 outputs, every output of the controller can link 1pc tube light. So every controller can control 8pcs lights at most.
- 2) The controller can control 2 types of tube lights: 1 meter tube light and 2 meter tube light. Please refer to TUBE LIGHT TYPE SET MODE in OTHER MODE to set the controller to control the 2 different lights. The 1 meter tube light has 27 pixels, 2 meter tube light has 54 pixels. Each pixel occupies 3 channels, so each 1 meter tube light occupies 81 channels, each 2 meter tube light occupies 162 channels.
- 3) Every controller can be used as Master controller or Slave controller, it must be set to slave mode when it is used as slave controller. The tube lights connected to slave controller will act the same as the tube lights connected to master controller.

2. Operation Of LED digital tube controller system

Connect the LED digital tube to the LED digital tube controller, and then operate the LED digital tube controller to control the LED digital tube. It has 7 kinds of operation modes, they are as follows:

Manual dimmer color mode, Sound active mode, Auto-run program mode, Static color select mode, Other program select mode, DMX mode, Net control mode

Here above 7 kinds running mode are selected by MODE button.

MODE manual	SET UP manual	UP/DOWN manual	instruction
DMX MODE	Address set	DMX MODE ADDR: $\times \times \times$	Sets the DMX starting address from 001 to 512
	Channels set	DMX MODE CHAN: 005	The unit occupies 5 channels
		DMX MODE CHAN: 007	The unit occupies 7 channels
DIMMER MODE	LED tube select	MANUAL TUBE: ALL/ $\times \times$	TUBE: ALL is to set dimmer of all the LED tubes, TUBE: 01~08 is to set dimmer of the corresponding single LED tube
	Red dimmer	MANUAL RED: $\times \times \times$	Adjust the intensity of the red color, 000 is off, 255 is the brightest.

	Green dimmer	MANUAL GREN:×××	Adjust the intensity of the green color,000 is off,255 is the brightest.
	Blue dimmer	MANUAL BLUE:×××	Adjust the intensity of the blue color,000 is off,255 is the brightest.
	Flash	MANUAL STROB:××	Adjust the flash speed,00 is flash off,01 is slowest,15 is fastest
SOUND MODE	Mode select	SOUND PROG:××	Select the 24 built-in sound active mode
	Sensitivity select	SOUND SENS:××	Adjust the sensitivity of the sound-active,1 is the lowest level,8 is the highest level
AUTO RUN MODE	Dreaming mode set	AUTO RUN FADE:××	Select the 24 built-in dreaming mode
	Jumping mode set	AUTO RUN SNAP:××	Select the 24 built-in jumping mode
	Speed set	AUTO RUN SPEED:××	Adjust the speed of the dreaming/jumping mode 01-16,01 is the slowest speed,16 is the fastest speed
STATIC COLOR SELECT MODE	LED tube select	STATIC TUBE:ALL/××	TUBE:ALL is to select static color of all the LED tubes,TUBE:01~08 is to select static color of the corresponding single LED tube
	Color select	STATIC CLR:××	Select the 7 static colors
	Flash	STATIC STROB:××	Adjust the flash speed,00 is flash off,01 is slowest,15 is fastest
OTHER MODE	Display on/off	OPTION BLGT:ON	LED digital tube display always on
		OPTION BLGT:OFF	LED digital tube display off after 20 seconds if there is no operation
	LCD backlight brightness	OPTION BRCO:×××	Adjust the brightness of the LCD backlight 0-100.0 means LCD backlight off,the bigger value the brighter.
	IR remote function on/off	OPTION IR:ON	IR remote function on
		OPTION IR:OFF	IR remote function off
	Tube light type set mode	OPTION TUBES:27	The controller is set to control 1 meter tube light
OPTION TUBES:54		The controller is set to control 2 meter tube light	
Initialization mode	OPTION SYSRESET	Initialize the unit at the extra factory setting,now press UP and DOWN button at the same time,you can initialize it at extra factory setting.	
NET CONTROL MODE	IP address set	NET MODE IP0:×××	Set the IP address section 1 from 001-255
		NET MODE IP1:×××	Set the IP address section 2 from 001-255
		NET MODE IP2:×××	Set the IP address section 3 from 001-255
		NET MODE IP3:×××	Set the IP address section 4 from 001-255
	Subnet mask set	NET MODE SW0:×××	Set the subnet mask section 1 from 001-255
		NET MODE SW1:×××	Set the subnet mask section 2 from 001-255
		NET MODE SW2:×××	Set the subnet mask section 3 from 001-255
		NET MODE SW3:×××	Set the subnet mask section 4 from 001-255
	DMX universe output set	NET MODE U1:×××××	Set the output DMX universe 1 from 1to 32767
		NET MODE U2:×××××	Set the output DMX universe 2 from 1to 32767
NET MODE U3:×××××		Set the output DMX universe 3 from 1to 32767	

		NET MODE U4:×××××	Set the output DMX universe 4 from 1to 32767
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2.1 Manual dimmer color mode

Press"MODE"button,select the manual dimmer color mode.There are three modes in the sound active program mode.You can select them by pressing the"SET UP" button.

1) LED tube select mode

Press"SET UP"button, select the LED tube select mode.At this time,the LCD displays "MANUAL TUBE:ALL/×××",then press"UP"or "DOWN"button to select the LED tube.When"MANUAL TUBE:ALL" is displayed means that you can set the dimming rate for all the LED tubes,When"MANUAL TUBE:01~08" is displayed means that you can set the dimming rate for the corresponding single LED tube.For example: "MANUAL TUBE:01"represent the LED tube 1 and so on.

2) Manual dimmer color select

Press"SET UP"button, select the manual dimmer color select mode.At this time,the LCD displays red"MANUAL RED:×××",press the "SET UP" again to choose different color,green"MANUAL GREN:×××", blue"MANUAL BLUE:×××",then press"UP"or "DOWN"button to set the dimming rate 0-255.

3) Flash speed select

Press"SET UP"to choose the flash speed select mode.At this time,the LCD displays"MANUAL STROB:×××".Press"UP"or "DOWN"button to select the flash speed 00-15,00 is flash off,01 is the slowest flash speed,15 is the fastest flash speed.Press SET UP to choose the flash speed select mode.

2.2 Sound active mode

Press"MODE"button,select the sound active program mode.There are two modes in the sound active program mode.You can select them by pressing the"SET UP" button.

1) Sound active program mode select

Press"SET UP"button until the LCD displays"SOUND PROG:××",then press"UP" or "DOWN" to select the sound active program mode 1-24 under this mode.

2) Sensitivity select mode

Press"SET UP"button until the LCD displays"SOUND SENS:××",then press"UP" or "DOWN" to select the sound active the sensitivity 1-8. 1 is off sound-active,2 is the lowest sensitivity,8 is the highest sensitivity.

2.3 Auto-run program mode

Press"MODE"button,select the auto-run program mode.There are three modes in the auto-run program mode.You can select them by pressing the"SET UP" button.

1) Color dreaming program mode select

Press"SET UP"button until the LCD displays"AUTO RUN FADE:××",then press"UP"or "DOWN"button to select the 24 color dreaming programs 1-24.

2) Color jumping program mode select

Press"SET UP"button until the LCD displays"AUTO RUN SNAP:××",then press"UP"or "DOWN"button to select the 24 color jumping programs 1-24.

4) Color dreaming/jumping speed select

Press"SET UP"button until the LCD displays"AUTO RUN SPEED:××".Press"UP"or "DOWN"button to select the color dreaming/jumping speed 01-16,01 is the slowest speed,16 is the fastest speed.

2.4 Static color select mode

Press"MODE"button,select the static color select mode.There are three modes in the static color select mode.You can select them by pressing the"SET UP" button.

1) LED tube select mode

Press"SET UP"button, select the LED tube select mode.At this time,the LCD displays "STATIC TUBE:ALL/×××

",then press"UP"or "DOWN"button to select the LED tube.When"STATIC TUBE:ALL" is displayed means that you can select static color for all the LED tubes,When"STATIC TUBE:01~08" is displayed means that you can select static color for the corresponding single LED tube.For example:"STATIC TUBE:01"represent the LED tube 1 and so on.

2) Static color select

Press"SET UP"button until the LCD displays"STATIC CLR:××",then press"UP" or "DOWN" to select static color 0-7 under this mode.

3) Flash speed select

Press"SET UP"button until the LCD displays"STATIC STROB:××",then press"UP"or "DOWN"button to select the static color flash speed 00-15,00 is flash off,01 is the slowest flash speed,15 is the fastest flash speed.

2.5 Other program select mode

1) LCD backlight on/off select mode

Press"MODE" button,select LCD backlight on/off mode.Press UP or DOWN to select the LCD backlight on/off.When the LCD displays"OPTION BLGT:ON"means that the LCD backlight will on in any situation,when the LCD displays"OPTION BLGT:OFF"means that the LCD backlight will be automatically off after 20 seconds if there is no operation.

2) LCD backlight brightness select mode

Press"SET UP" button,select LCD backlight brightness select mode.At this time,the LCD displays"OPTION BRCO:×××".Press UP or DOWN to adjust the LCD backlight brightness 0-100.0 means LCD backlight off,the bigger value the brighter.

3) IR remote function on/off select mode

Press"SET UP" button ,select IR remote function on/off mode.Press UP or DOWN to select IR remote function on/off.When the LCD displays"OPTION IR:ON"means that IR remote function is on,when the LCD displays"OPTION IR:OFF"means that IR remote function is off.

4) Tube light type set mode

Press"SET UP" button ,select display tube light type set mode.Press UP or DOWN to select the 2 different tube lights to be controlled by controller.When the digital tube displays"OPTION TUBES:27"means that the controller is set to control 1 meter tube light,When the digital tube displays"OPTION TUBES:54"means that the controller is set to control 2 meter tube light.

5) Initialization select mode

Press"SET UP" button until the LCD displays"OPTION SYSRESET",and the LCD backlight is flicker.Now press UP and DOWN button at the same time,you can initialize it at extra factory setting.

2.6 Net control mode

1) IP address set

Press"MODE"button,select the IP address set mode.At this time,the LCD displays"NET MODE IP0:×××",press"UP"or "DOWN"button to set the section 1 IP address.Then press SET UP button to select the section 2 IP address"NET MODE IP1:×××",the section 3 IP address"NET MODE IP2:×××" and the section 4 IP address"NET MODE IP3:×××" ,press"UP"or "DOWN"button to set them.

2) Subnet mask set

Press"SET UP"button,select the subnet mask set mode.At this time,the LCD displays"NET MODE SW0:×××",press"UP"or "DOWN"button to set the section 1 Subnet mask.Then press SET UP button to select the section 2 Subnet mask"NET MODE SW1:×××",the section 3 Subnet mask"NET MODE SW2:×××" and the section 4 Subnet mask"NET MODE SW3:×××" ,press"UP"or "DOWN"button to set them from 001-255.

3) DMX universe output set

Press "SET UP" button, select the DMX universe output set mode. At this time, the LCD displays "NET MODE U1: ××××", press "UP" or "DOWN" button to set the output DMX universe from 1 to 32767. Then press SET UP button to select the output DMX universe 2 "NET MODE U2: ××××", the output DMX universe 3 "NET MODE U3: ××××" and the output DMX universe 4 "NET MODE U4: ××××", press "UP" or "DOWN" button to set the other 3 DMX universes.

2.7 DMX mode

You can control the devices individually via your DMX-controller.

Notice: The LED digital tube controller is under slave mode in any situation of the DMX mode (any DMX address, any DMX channels mode) when it is combined to other LED digital tube controller but not 512DMX controller.

1) DMX address select mode

The control Board allows you to assign the DMX address which is defined as the first channel of the LED digital tube CONTROLLER. Press "MODE" button until the LCD display is "DMX MODE ADDR: ×××", then press UP or DOWN to set the DMX address 1-512. The LCD display will be flicker when there is no controller signal.

2) DMX-PROTOCOL

Press "SET UP" button until the display is "DMX MODE CHAN: 005/007/026", then press UP or DOWN to set the desired channels (5, 7, 26). There are total 3 DMX modes.

CHAN: 005 :5 channels mode

CH No.	DMX value	Function
CH1	000~255	Red(dim→bright)
CH2	000~255	Green(dim→bright)
CH3	000~255	Blue(dim→bright)
CH4	000~255	Dimming(dim→bright)
CH5	000	No function
	001~005	Sound active(sound active mode 1 to sound active mode 24 run in cycle)
	006~010	No function
	011~255	Strobe slowest to fastest flash frequency is 0.1HZ-20HZ

CHAN: 007 :7 channels mode

CH1	CH2	CH3	CH4		CH5	CH6	CH7
			DMX VALUE	FUNCTION			
		Color dimmer mode (0-50)	0-255	No function	Red 0-255 (dim→bright)	Green 0-255 (dim→bright)	Blue 0-255 (dim→bright)
	0-27=No function 28-255=Flash (slow→fast)	Static color select mode (51-102)	0-31	BLACK			
			32-63	Red			
			64-95	Green			
			96-127	Blue			
			128-159	Yellow			
			160-191	Purple			
			192-223	Cyan			

Dimming 0-255 (dim→ bright)	Speed 0-255 (slow→ fast)	Color jumping mode select (103-154)	224-255	White	No function	No function	No function
			0-10	Color jumping 1			
			11-20	Color jumping 2			
			21-31	Color jumping 3			
			32-42	Color jumping 4			
			43-52	Color jumping 5			
			53-63	Color jumping 6			
			64-74	Color jumping 7			
			75-84	Color jumping 8			
			85-95	Color jumping 9			
			96-106	Color jumping 10			
			107-117	Color jumping 11			
			118-127	Color jumping 12			
			128-138	Color jumping 13			
			139-148	Color jumping 14			
			149-159	Color jumping 15			
			160-170	Color jumping 16			
			171-180	Color jumping 17			
			181-191	Color jumping 18			
			192-202	Color jumping 19			
			203-212	Color jumping 20			
			213-223	Color jumping 21			
			224-234	Color jumping 22			
			235-244	Color jumping 23			
		245-255	Color jumping 24				
		Color dreaming mode select (155-206)	0-10	Color dreaming 1			
			11-20	Color dreaming 2			
			21-31	Color dreaming 3			
			32-42	Color dreaming 4			
			43-52	Color dreaming 5			
			53-63	Color dreaming 6			
			64-74	Color dreaming 7			
			75-84	Color dreaming 8			
			85-95	Color dreaming 9			
96-106	Color dreaming 10						
107-117	Color dreaming 11						
118-127	Color dreaming 12						
128-138	Color dreaming 13						
139-148	Color dreaming 14						
149-159	Color dreaming 15						
160-170	Color dreaming 16						
171-180	Color dreaming 17						
181-191	Color dreaming 18						

			192-202	Color dreaming 19		
			203-212	Color dreaming 20		
			213-223	Color dreaming 21		
			224-234	Color dreaming 22		
			235-244	Color dreaming 23		
			245-255	Color dreaming 24		
	Sensitivity 0-31= sound active off 32-255= sound active on (insensitive→ sensitive)	Sound active mode select (207-255)	0-10	Sound mode 1		
			11-20	Sound mode 2		
			21-31	Sound mode 3		
			32-42	Sound mode 4		
			43-52	Sound mode 5		
			53-63	Sound mode 6		
			64-74	Sound mode 7		
			75-84	Sound mode 8		
			85-95	Sound mode 9		
			96-106	Sound mode 10		
			107-117	Sound mode 11		
			118-127	Sound mode 12		
			128-138	Sound mode 13		
			139-148	Sound mode 14		
			149-159	Sound mode 15		
			160-170	Sound mode 16		
			171-180	Sound mode 17		
			181-191	Sound mode 18		
192-202	Sound mode 19					
203-212	Sound mode 20					
213-223	Sound mode 21					
224-234	Sound mode 22					
235-244	Sound mode 23					
245-255	Sound mode 24					

Priority:CH1>CH3>CH2,CH4>CH5,CH6,CH7

Note:

① When the Channel 3 fader level is between the values of 0 and 50, Channel 5 to Channel 7 will control the Red/Green/Blue dimmer,Channel 2 will control the flash speed.

② When the Channel 3 fader level is between the values of 51 and 102,Channel 4 will select the 8 static colors,Channel 2 will control the flash speed.

③ When the Channel 3 fader level is between the values of 103 and 154, Channel 4 fader will select the 24 color jumping mode,Channel 2 will control jumping speed.

④ When the Channel 3 fader level is between the values of 155 and 206, Channel 4 fader will select the 24 color dreaming mode,Channel 2 will control dreaming speed.

⑤ When the Channel 3 fader level is between the values of 207 and 255, the Channel 4 fader will select the 24 sound active mode,Channel 2 will control sound active sensitivity.

CHAN: 026:26 channels mode

CH No.	DMX value	Function
CH1	000~255	Dimming(dim→bright)
CH2	000~027	No function
	028~255	Strobe(slow→fast)
CH3	000~255	Red (dim→bright) LED tube 1
CH4	000~255	Green (dim→bright) LED tube 1
CH5	000~255	Blue (dim→bright) LED tube 1
⋮	⋮	⋮
CH24	000~255	Red (dim→bright) LED tube 8
CH25	000~255	Green (dim→bright) LED tube 8
CH26	000~255	Blue (dim→bright) LED tube 8

3.Operation by IR remote

You can also operate this controller by IR remote, the distance available is at most 10M.

Notice:IR remote can be used only when the unit is set to IR remote function on.

The picture of the IR remote:



AUTO RUN mode

Press AUTO RUN button to cycle among color dreaming mode and color jumping mode.Each press of this button will change to the next mode.

- 1.When the controller goes into the color dreaming mode,press “+”and “-”to select the 24 color dreaming modes.Press SPEED to set the color dreaming speed and press “+” or “-” to adjust it.
- 2.When the controller goes into the color jumping mode,press “+”and “-” to select the 24 color jumping modes.Press SPEED to set the color jumping speed and press “+” or “-” to adjust it.

Select program Mode

Press SELECT PROG button to cycle among color LED tube select and static color select mode.Each press of this button will change to the next mode.

1. When the controller goes into the LED tube select mode,press “+”and “-”to select the LED tube.When"STATIC TUBE:ALL" is displayed means that you can select static color for all the LED tubes,When"STATIC TUBE:01~08" is displayed means that you can select static color for the corresponding single LED tube.For

example:"STATIC TUBE:01"represent the LED tube 1 and so on.

2. When the controller goes into the static color select mode,press "+"and "-" to select the 7 colors.Press FLASH to turn on flash effect to in this situation, pressing "+" and "-" buttons to adjust the flash speed.

Sound Active Mode

Press SA button to cycle among sound active program select and sensitivity select mode.Each press of this button will change to the next mode.

1.When the controller goes into the sound active program select mode,press "+"and "-"to select the 24 sound active modes.

2.When the controller goes into the sensitivity level select mode,press "+"and "-"to adjust the sound sensitivity level.

M/S mode

Press SL button to switch between slave mode and net control mode.Each press of this button will change to the next mode.

Select light program mode

Press R/G/B to choose the three different colors,and then pressing "+" and "-" buttons or put in three number 000-255 to adjust the intensity of all the LED tube lights.Press FLASH to turn on flash effect to in this situation, pressing "+" and "-" buttons to adjust the flash speed.

DMX MODE

There are 3 DMX modes: a 5 Channel mode,7 Channel mode and 26 Channel mode.You must set the DMX Channel mode before you address the fixture.To select your desired DMX Channel mode press the DMX mode button, and then press the "+" or "-" buttons to scroll through the 3 DMX Channel modes.

Set ADDR

Press this button to set the DMX address or initialize the program, then the red, green and blue lights will flash 2~3 times. Please put in 3 number ,for example, 1 2 3. After the red light is on, please put in the first number. After the first number is accessed the green light will be on, then put in the second number. When the blue light will be on, please put in the third number. After all the three numbers are put in, the red, green and blue lights will flash 2~3 times, which indicate that the DMX address is right and it go in to the DMX MODE automatically. If the address is wrong the red light will be on. New DMX address should be put in.

If the 951 are put in, red and green lights will be on.Put "0" to initialize the program. If the wrong address is put in, the red light will be on, indicating new address should be put in. Then the system will run in the designed mode.

Black Out mode

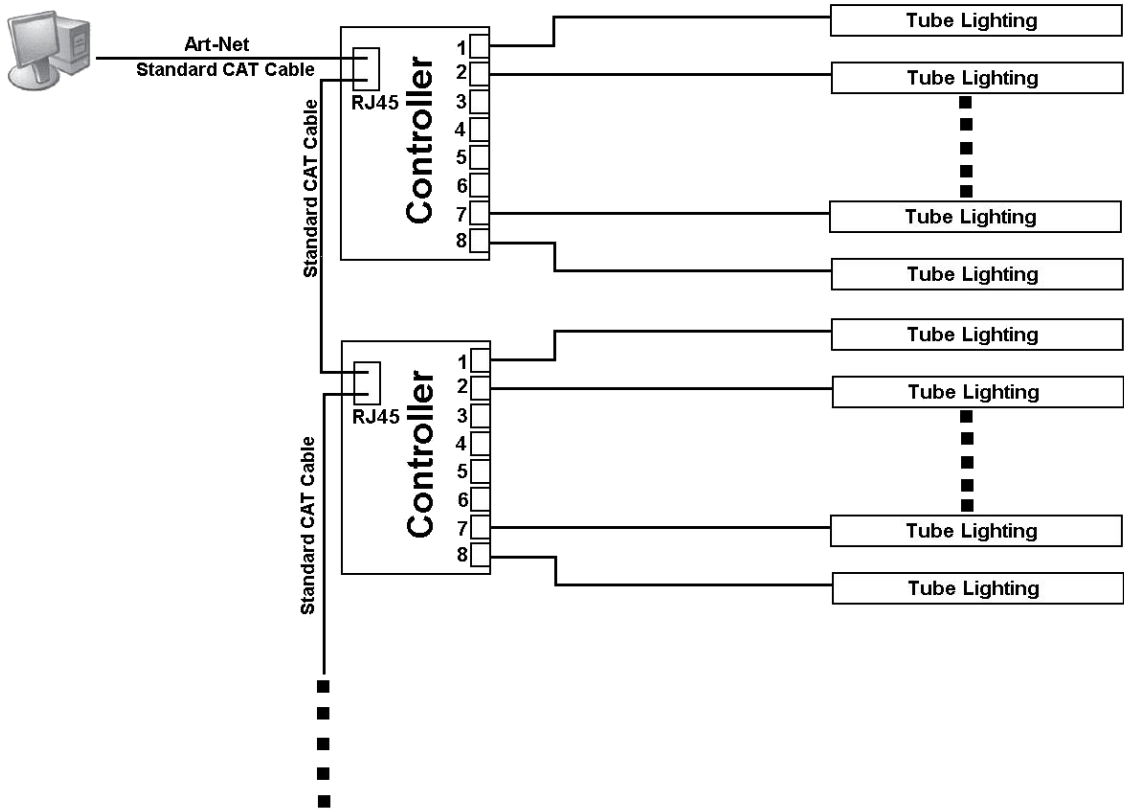
Press "BLACK OUT" to set the LED lights power on or power off by pressing this button.

C,All the system controlled by ART-NET

Set the controller to NET control mode,and now all the system can be controlled by Art-net .

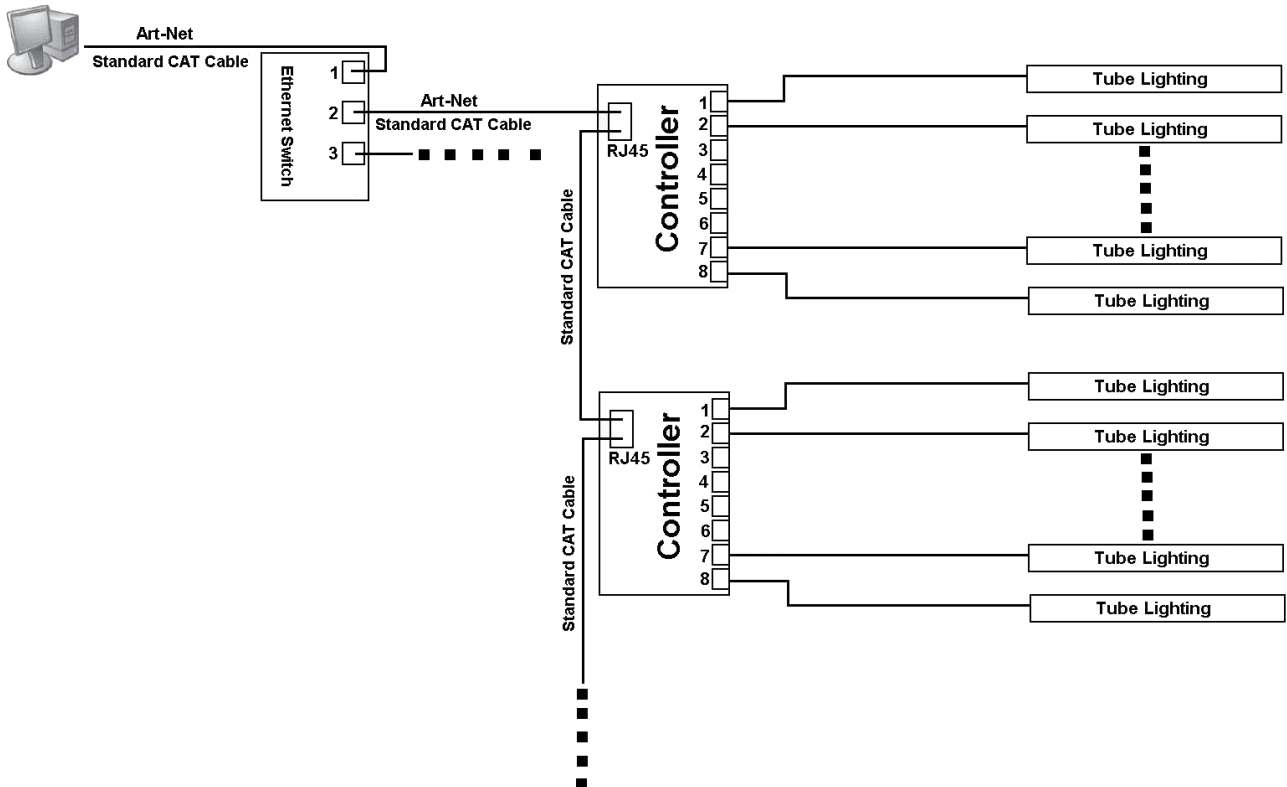
1. Installation pictures:

Installation method 1:



Note: Do not daisy-chain more than 50pcs LED controllers from the computer, and use an Ethernet Switch if more than 50pcs controllers are being controlled.

Installation method 2:



Note:1.The Ethernet Switch must be Gigabit Switch.

2. Do not daisy-chain more than 50pcs LED controllers from a single network port of the Ethernet Switch.

3. Maximum 2 output network ports of the Ethernet Switch can be used..So the system can control 100pcs controllers maximum.

2.Operation step

- 1) Install MADRIX software at your PC.
- 2) Connect the LED lights by standard CAT cable.
- 3) Set the LED lights to NET CONTROL mode.
- 4) Connect all the LED tube lights to the controllers.
- 5) Map the LED lights by Matrix Generator or Patch.
- 6) Control the LED lights by MADRIX software.Please refer to MADRIX user manual.