

# DMX512 LED Controller

## SC-WC8-C



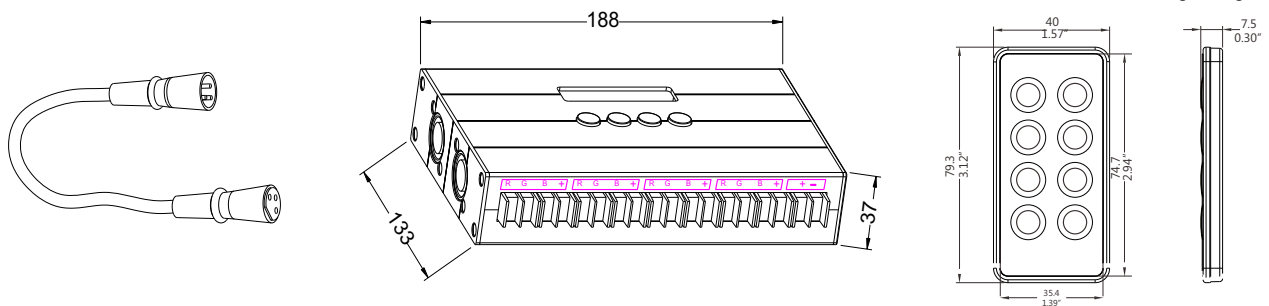
### Features

- Meet DMX512(1990) protocol. Can be used as a DMX512 decoder.
- A LCD screen shows controller current working status.
- 33 normal changing patterns and 4 DMX operating modes.
- 256 levels brightness , totally 16.77 million colors, real full color (up to 65536 levels).
- 0-255 changing speed levels for dynamic change
- RGB individual dimming function
- Automatic parameter memory
- XLR3 Male and Female interface

### Technical Parameter

- Input Voltage: 12V/24V DC
- Input Signal: DMX512(1990)
- Output Channel: dimming up to 12 channels
- Output Current: 4A/12VDC and 2A/24 DC for each channel
- Function: All 37 modes
- Control distance: more than 30m

### Dimensions (Unit: mm)



### Dynamic color changing patterns

- |                   |                |                 |                                |
|-------------------|----------------|-----------------|--------------------------------|
| 1. Static Red     | 12. RB Jump    | 23. RGB Gradual | 34. DMX512 Dimmer(1 Channel)   |
| 2. Static Green   | 13. GB Jump    | 24. RG Gradual  | 35. DMX512 Dimmer(3 Channels)  |
| 3. Static Blue    | 14. RGB Jump   | 25. RB Gradual  | 36. DMX512 Dimmer(12 Channels) |
| 4. Static Yellow  | 15. RG Flick   | 26. GB Gradual  | 37. DMX512 Console model       |
| 5. Static Purple  | 16. RB Flick   | 27. R Gradual   |                                |
| 6. Static Cyan    | 17. GB Flick   | 28. G Gradual   |                                |
| 7. Static White   | 18. RGB Flick  | 29. B Gradual   |                                |
| 8. 7-Color Jump   | 19. RGB Smooth | 30. R DIM MODE  |                                |
| 9. 6-Color Jump   | 20. RG Smooth  | 31. G DIM MODE  |                                |
| 10. 7-Color Flick | 21. RB Smooth  | 32. B DIM MODE  |                                |
| 11. RG Jump       | 22. GB Smooth  | 33. RGB mix     |                                |

## Operation Descriptions

### Working as a normal controller (no connection to DMX console)

Modes 1–7 are modes for static colors. With the modes, brightness or speed is not able to be adjusted. Modes 8–33 are for dynamic color patterns. Brightness and speed levels can be programmed.

#### How to adjust speed -

Press key “MODE” to 8 to 33.

Step1: Press “SET” to set speed. Change value by “UP” and “DOWN” keys.

Step2: Press “SET” again to exit.

#### How to adjust brightness(dimming) -

Dimming red light: ■

User can adjust the brightness of R, and the value will display on LCD screen:

Step1: Press “MODE” to select mode 30

Step2: Press “SET” to set brightness of Red, change value by “UP” “DOWN” keys.

Step3: Press “SET” again to exit.

Dimming green light: ■

User can adjust the brightness of Green, and the value will display on LCD screen:

Step1: Press “MODE” to select mode 31

Step2: Press “SET” to set brightness of Green, change value by “UP” “DOWN” keys.

Step3: Press “SET” again to exit.

Dimming blue light: ■

User can adjust the brightness of Blue, and the value will display on LCD screen:

Step1: Press “MODE” to select mode 32

Step2: Press “SET” to set brightness of Blue, change value by “UP” “DOWN” keys.

Step3: Press “SET” again to exit.

Dimming RGB light: ■■■

User can adjust the brightness of R,G,B separately, and the value will display on LCD screen:

Step1: Press “MODE” to select Mode 33

Step2: Press “SET” to set brightness of Red, change value by “UP” “DOWN”.

Step3: Press “SET” again to set brightness of Green, change value by “UP”/“DOWN”.

Step4: Press “SET” again to set brightness of Blue, change value by “UP”/“DOWN”.

Step5: Press “SET” again to exit.

### Working with DMX console

#### Procedure to run dimming function:

Step 1: press “MODE” key to select mode 36.  
(Be sure the console is already connected)



36	DMX		Receiver
MODE	SET	UP	DOWN

Step 2: press “SET” key to set receiving address code by “UP” and “DOWN” keys.



SET	A	d	d	r	e	s	s		0	0	1
-----	---	---	---	---	---	---	---	--	---	---	---

Step 3: press “SET” to confirm and exit.

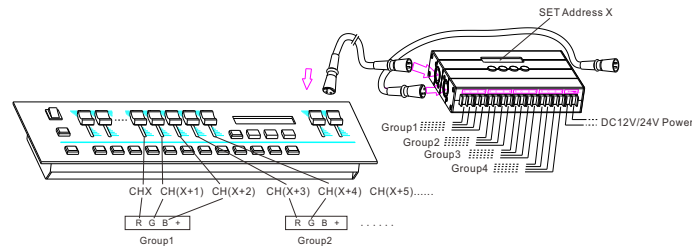


36	DMX		Receiver
MODE	SET	UP	DOWN

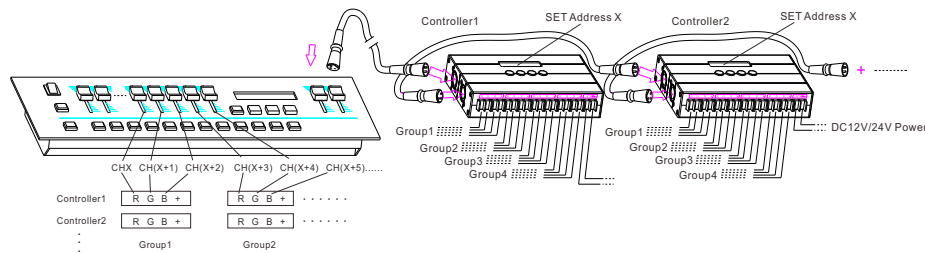
## Achieve dimming by DMX

In dimming mode, if the controller is fully connected with 4 groups of RGB products, then the controller occupies 12 channels.

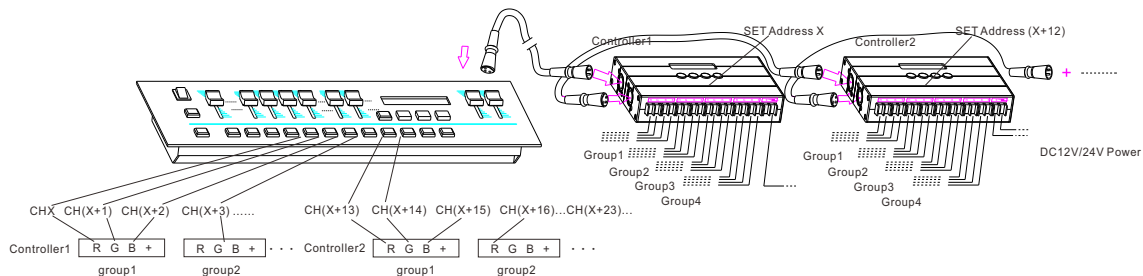
1. If the address code is set as X, then the responding channels on console will be CHX, CH(X+1)..... CH(X+11). CHX dims Group 1 red light, CH(X+1) dims Group 1 green light, CH(X+2) dims Group 1 blue light. CH(X+3) dims Group 2 red light, CH(X+4) dims Group 2 green light, CH(X+5) dims Group 2 blue light.



2. To achieve: Multiple controllers work with console and synchronous dimming for each controller. The address codes for each controller should be the same. For instance, the address code is set as X, Then CHX on the console dims Group 1 red light, CH(X+1) dims Group 1 green light, CH(X+2) dims Group 1 blue light. CH(X+3) on the console dims Group 2 red light, CH(X+4) dims Group 2 green light, CH(X+5) dims Group 2 blue light.



3. To achieve: Multiple controllers work with console and asynchronous dimming for each controller. The address codes for each controller should be set according to the occupied channels by connected products. For instance, if all controllers are fully connected with RGB products, and controller 1 is set as X, then controller 2 address code should be set as X+12, and controller 3 set as X+24. The rest can be done in the same manner.



## Procedure to run dynamic color change function:

Step1: press "MODE" key to select mode 37.  
(Be sure the console is already connected)



Step2: press "SET" key to set receiving address code by "Up" and "DOWN" keys.



Step3: press "SET" to confirm and exit.

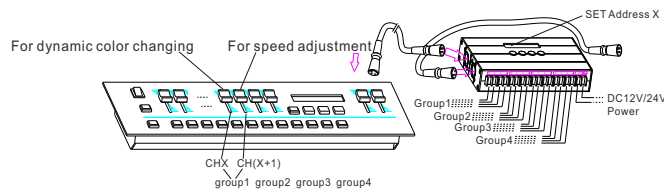


## Achieve dynamic color changing and speed adjustment by DMX

No matter if a controller is fully connected with RGB products, the lights with each controller will do the dynamic color changing and speed adjustment simultaneously. Each controller will occupy 2 channels.

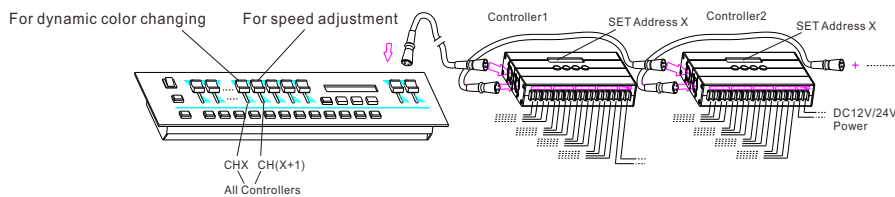
### 1. Individual controller works with console

If the address code is set as X, the corresponding channels on console will be CHX and CH(X+1). CHX is for dynamic color changing patterns. CH(X+1) is for speed adjustment.



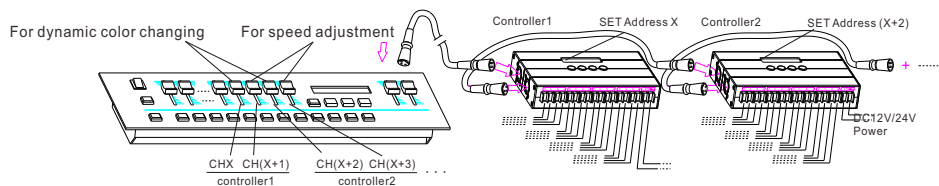
### 2. To achieve: Multiple controllers work with console. All controllers have the synchronous dynamic color changing patterns and speed adjustment.

If controller 1 address code is set as X, then the other controllers are also set as X. CHX on console will be responding to dynamic color changing and CH(X+1) responds to speed adjustment.



### 3. To achieve: Multiple controllers work with console. Each controller has different dynamic color changing patterns and speed adjustment.

If controller 1 address code is set as X, then controller 2 will be set as X+2 and controller 3 set as X+4. Accordingly, CHX will respond to dynamic color changing with controller 1, CH(X+1) will respond to speed adjustment with controller 1. CH(X+2) will respond to dynamic color changing with controller 2, CH(X+3) will respond to speed adjustment with controller 2.



## Caution

1. Each "channel unit" has the max. load capacity 144W and the 4 units can be loaded max. 288W. If connected with a RGB light, each R, G, B channel can not be loaded with more than 48W. Please be sure each unit load is less than the max. load capacity, otherwise there is potential danger to destroy the controller.  
DC transformer/adaptor with adequate power is necessary responding to the load.
2. Constant voltage driving way is applied on the controller output drive. User should make sure the controller and running LED lights to have the same voltage, e.g. a 12V DC transformer is needed to power the controller if the LED light is 12V DC, and a 24V DC transformer is needed to power the controller if the LED light is 24V DC.
3. When installing the controller, first cut off the power of controller, connect well the LED light with controller, then connect the controller with power supply.