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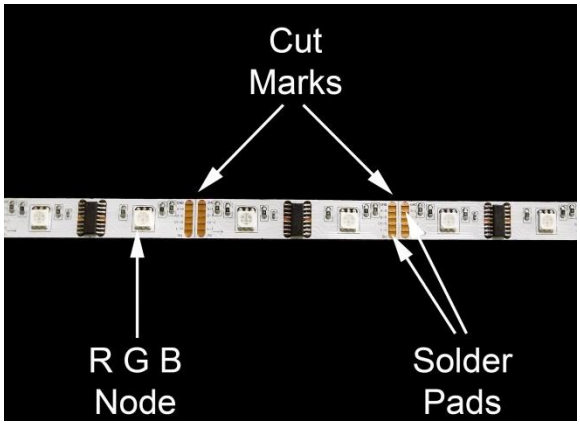
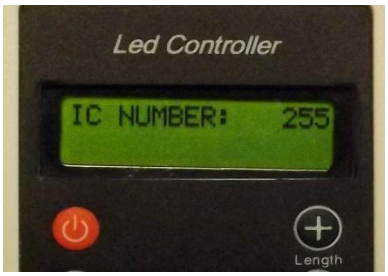
Chasing Micro Remote Controller for RGB ColorChase LED Strips - 12 VDC

Part No. CMRC

The Chasing Micro Remote Controller with RF remote is an easy way to create chasing color effects and allows you to control each LED individually, using RGB ColorChase LED Strips. Pre-programmed with 84 chasing effects, the CMRC is ready to use. Simply power the controller with the included 12 VDC adapter, plug in the RGB ColorChase LED strip(s), and power the strip(s) with 5 VDC.



The CMRC allows you to customize any of the 84 chasing effects by adjusting the speed or pattern segment length. Speed can be adjusted from level 1 (fastest) to level 100 (slowest). Pattern segment length can be adjusted from 16 (32 LEDs = 1 meter) to 255 (510 LEDs = approximately 16 meters). The backlit built in display screen lists the current mode, speed, and pattern segment length (IC Number) setting.



Pattern Segment Length Setting

The chasing segment pattern length (can only be adjusted when the controller is being powered, but in **off** mode. Default IC Number setting is 255. Each IC NUMBER corresponds to one IC Chip on our RGB ColorChase LED Strip. A full 5 meter reel of RGB ColorChase LED strip contains 160 LEDs or 80 IC Chips. The IC Number can be calculated by simply multiplying "desired segment pattern length in meters" x "16 IC Chips". For example, to set the pattern segment length for a 5 meter reel, IC Number = 5 meters x 16 IC Chips = 80.

Two output ports give you the option of connecting one or two ColorChase strips in parallel, for simultaneous and synchronized control. The RF remote control has a range of over 100 feet and works through walls.

Specifications

Dimensions:	Controller	3.70" x 2.30" x 1.00"
		94 mm x 58 mm x 25 mm
Remote Control:		3.36" x 1.45" x 0.70"
		85 mm x 37 mm x 18 mm
Operating Temperature:		-4 to 140°F (-20 to 60°C)
Voltage:		12 Volts DC
Recommended run length:		12.5 meters (2.5 reels)
		200 IC Chips
Maximum run length:		15.9 meters (3.2 reels)
		255 IC Chips

**Each IC Chip controls two LEDs. This allows a maximum of 255 x 2 = 510 LEDs to be addressed by the CMRC for any given pre-set mode.

To ensure continuous color chasing effects, we recommend that the CMRC is used to control no more than 2.5 reels of RGB ColorChase LED Strip, due to variances between the pre-set modes.

Features

- RF hand-held remote controller to wirelessly adjust modes and settings.
- Remote controller works through walls. Over 100 foot range in benign electromagnetic environment.
- Controller buttons to adjust modes and settings, including pattern segment length.
    - Customize pattern segment length (number of IC chips) addressed when executing the chasing pattern, when controller is powered but in off mode.
    - +/- length button, sets the segment length for the number of IC chips addressed.
    - Lowest setting = 16, equivalent to 32 LEDs
    - Highest setting = 255, equivalent to 510 LEDs
- Power off memory function. CMRC powers up in the mode and patter segment length it was set on when you turned it off, which is convenient
- Compact 3.70" x 2.30" x 1.00" controller is easy to hide or mount using Velcro (not included.)
- Even more compact 3.36" x 1.45" x 0.70"remote control (batteries included).
- 84 pre-programmed modes, listed on the next page.

Operation

Use the included 12 VDC adapter to power the controller only. Apply voltage using the 2.1mm jack at the side. **Do not power the RGB ColorChase LED strips with 12V, as this will destroy the IC Chips.** You must use 5V on the ColorChase strips.

You must always have a 5V power supply connected to the RGB ColorChase LED strip when the CMRC is powered, otherwise the CMRC will be overloaded and damaged due to trying to supply power to the strip(s) from the 12V adapter alone.

Remote Control

If the controller is in Pause mode, the remote control will not operate. Press the PLAY/PAUSE button on the controller to put it in Play mode, enabling the remote control.

Each remote control (hand-held or wall-mount) has a programmed code that must match the programmed code of the controller. If you buy more than one controller, remember not to mix up the remote controls and controllers. The codes are not user-modifiable.

Remote functions:

- 

: Power on/off.
- 

: Pauses the state of the current mode.
- 

or 

: Toggles between the pre-programed chasing modes (1-84).
- 

or 

: Increases or decreases the speed (1 = fastest, 100 = slowest) of the current chasing mode.
- Lighted ●: Indicates signal transmission

Program	Mode	Program	Mode
1	**All color wave forward direction**	**43**	**Yellow-red-yellow wave chase center in**
2	**All color wave backward direction**	**44**	**Purple-red-purple wave chase forward direction**
3	**All colors center out wave**	**45**	**Purple-red-purple wave chase backward direction**
4	**All colors center in wave**	**46**	**Purple-red-purple wave chase center out**
5	RGB forward direction wave	**47**	**Purple-red-purple wave chase center in**
6	RGB backward direction wave	48	Red-purple-blue wave chase forward direction
7	RGB color center out wave	49	Red-purple-blue wave chase backward direction
8	RGB color center in wave	50	Red-purple-blue wave chase center out
9	RYGCBM color wave forward direction	51	Red-purple-blue wave chase center in
10	RYGCBM color wave backward direction	52	Red-yellow-green wave chase forward direction
11	RYGCBM color wave center out	53	Red-yellow-green wave chase backward direction
12	RYGCBM color wave center in	54	Red-yellow-green wave chase center out
13	BRGMCY color meteor shower forward direction	55	Red-yellow-green wave chase center in
14	BRGMCY color meteor shower backward direction	**56**	**Blue-cyan-blue wave chase forward direction**
15	BRGMCY color meteor shower center out	**57**	**Blue-cyan-blue wave chase backward direction**
16	BRGMCY color meteor shower center in	**58**	**Blue-cyan-blue wave chase center out**
17	RGB meteor shower forward direction	**59**	**Blue-cyan-blue wave chase center in**
18	RGB meteor shower backward direction	60	Green-cyan-blue wave chase forward direction
19	RGB meteor shower center out	61	Green-cyan-blue wave chase backward direction
20	RGB meteor shower center in	62	Green-cyan-blue wave chase center out
21	**Six color change**	63	Green-cyan-blue wave chase center in
22	RGB color segment change	**64**	**White-red-white wave chase forward direction**
23	**CYM color segment change forward direction**	**65**	**White-red-white wave chase backward direction**
24	**Six color segment change forward direction**	**66**	**White-red-white wave chase center out**
25	**Six color segment change backward direction**	**67**	**White-red-white wave chase center in**
26	**Six color segment change center out**	**68**	**White-blue-white wave chase forward direction**
27	**Six color segment change center in**	**69**	**Change color green-white-green backward direction**
28	RGB change forward direction	**70**	**White-blue-white wave chase center out**
29	RGB change backward direction	**71**	**White-blue-white wave chase center in**
30	RGB instant change center out	**72**	**White-green-white wave chase forward direction**
31	RGB color change center in	**73**	**White-green-white wave chase backward direction**
32	**Six colors full color chase forward direction**	**74**	**White-green-white wave chase center out**
33	**Six colors full color chase backwards direction**	**75**	**White-green-white wave chase center in**
34	RGB full color chase forward direction	76	Six color gradient chase forward direction
35	**RGB full color chase backwards direction**	77	Six color gradient chase backward direction
36	**Six colors full color chase sequence center out**	78	Six color gradient chase center out
37	**Six colors full color chase sequence center in**	79	Six color gradient chase center in
38	**RGB full color chase sequence center out**	80	RGB gradient chase forward direction
39	**RGB full color chase sequence center in**	81	RGB gradient chase backward direction
40	**Yellow-red-yellow wave chase forward direction**	82	RGB gradient chase center out
41	**Yellow-red-yellow wave chase backwards direction**	83	RGB gradient chase out center in
42	**Yellow-red-yellow wave chase center out**	84	Demo - cycles through all pre-set modes

Modes in **bold indicate 2.5 reel max. run length for the specified pre-set mode

Applications

- An easy solution for full color chasing LED control systems. Use with 5 Volt DC RGB ColorChase LED Strips.
- Hotels, restaurants, office buildings, homes and casinos, wine cellars, bars, home entertainment centers.

Instructions

Please take the following precautions:

1. This equipment, like all electrical equipment, should be installed by a qualified person.
2. Do not expose these LEDs, dimmers or power supplies to intense electro-magnetic fields, including lightning.
3. The controllers and power supplies are not waterproof. Keep them dry.
4. Always observe proper polarity.

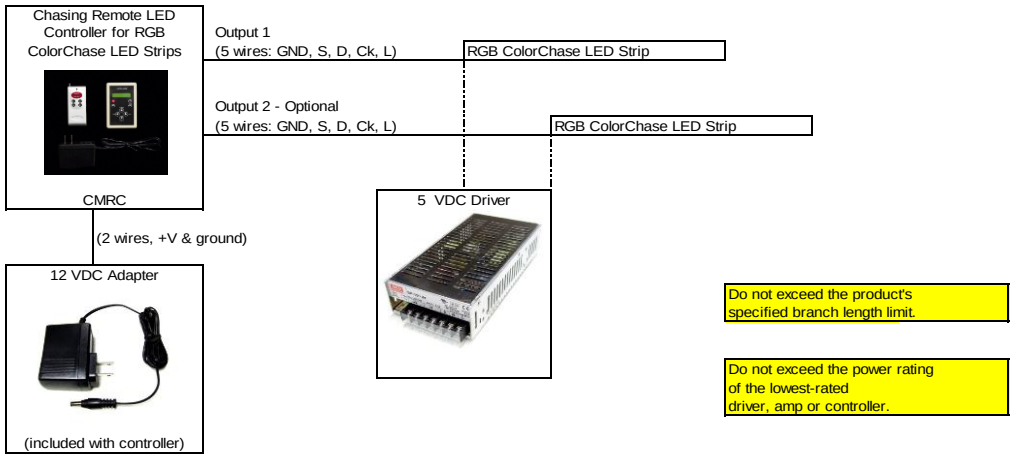
When installing LED lighting, it is a good idea to follow this "dry-run" procedure:

5. Be sure you have everything you need before you start.
6. Lay out your lights and power supply on the floor or table.
7. There is some resistance in the LED lighting. If you see any color fading or dimming at the end of a long run, you may have too many LEDs for your power supply and you might need a bigger supply or shorter runs. Use a bus structure as described in rgb_manual.pdf. Call if you need assistance with larger projects.
8. Connect everything and test it to be sure it works and you have it connected properly. It is unlikely, but possible, that some part of your system is defective or was damaged during shipment. If that is the case, it will be very helpful to you to know that before you do all the work involved in installing custom LED lighting systems. You will also know if you damage anything during installation, which is really helpful in trouble-shooting because manufacturing defects and installation damage typically have very different solutions. Once you have tested the system successfully, you are ready to install it. We recommend you install LEDs, electronic controls and dimmers in such a way that you have access to them in case they fail. All electrical components can fail.

Circuit Diagrams for Controllers

We recommend injecting 5 VDC every 5 meters to eliminate color variation due to voltage drop, especially when performing large scale installations.

Small Scale Installation Using
Chasing Micro Remote LED Controller for RGB ColorChase LED Strips - 12 VDC



Larger Scale Installation Using
Chasing Micro Remote LED Controller for RGB ColorChase LED Strips - 12 VDC