

Important: Read all instructions prior to installation.

NDC series Dream-Color Chasing RGB Controller

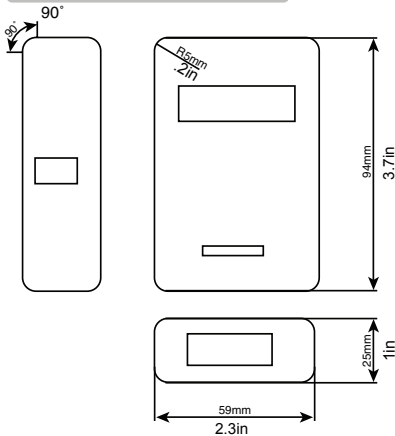


- Dream-Color controller for SPI Signal
- Direct Drive LED applications
- 256 levels of intensity per color
- Strip length setting and power off memory function
- 83 modes to choose from
- RF Remote to adjust lighting effects
- Can be applied to light box, advertising, stage lighting, decorative lighting, etc.
- Can support 12 different IC strip styles
- Maximum 2048 pixels

Technical Specs

Working Temperature	20-60°C
Supply Voltage	5-24VDC
External Dimension	L3.7in x W2.3in x H1in (94mm x 59mm x 25mm)
Packing Size	L5.7in x W3.7in x H1in (145mm x 95mm x 25mm)
Net Weight	4.45oz (126.3g)
Gross Weight	5.88oz (166.8g)
Rated Power	2.2W
Maximum Pixel Point	2048
Output	One Groups SPI Signal
FCC ID	2AE8NREC-TX

External Dimension



Power Connection



Power Input Interface:

- Input voltage is 5-24VDC
- .22in (5.5mm) barrel connector
- Center of barrel is positive (- - (+) +)

FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NDC2-RGB150 Setup

Power with 12VDC

Set IC to WS2811

Set LED sequence to RBG

Set pixels to 50

Note: For every 5m NDC2-RGB150 added to the controller, increase the pixel count by 50.

Controller

- ON/OFF button, turns the controller on or off.
- Play/pause button, can play or pause led effect of dynamic modes (8-83).
- Increase button, in stand-by mode, can select strip IC type, pixel number, RGB line sequence.
- Decrease button, in stand-by mode, can select strip IC type, pixel number, RGB line sequence.
- Mode increase button, cycles up to the next mode, can switch IC type, pixel number, RGB line sequence.
- Mode decrease button, cycles down to the next mode, can switch IC type, pixel number, RGB line sequence.
- Speed-down button, decreases program speed during modes (8-83).
- Speed up button, increases program speed during modes (8-83).

Remote

ON/OFF: you can turn the controller on or off at any time;

PAUSE: cycles between play and pause

S+: Increase speed (1-100)

S-: Decrease speed (1-100)

M+: Next mode

M-: Previous mode

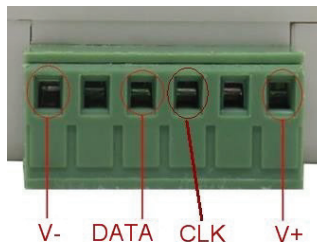
Setup

Connect the strip wires first, followed by the power wire, at this time, the screen shows "-POWER OFF-", press key, screen shows "Pixel Number:", choose the correct pixel number by pressing keys to match your strip length.

Press key again, screen shows "IC Type:", press keys to choose the correct IC Type.

Press key again, screen shows "Led Sequence:", press keys to select the correct R,G,B sequence.

Strip Connection



V+ connect to strip positive, V- connect to strip negative, DATA connect to strip data, CLK connect to clock strip.



Programs

4. Standard color changes as follows:

Mode	Program
1	Static Red
2	Static Green
3	Static Blue
4	Static Yellow
5	Static Magenta
6	Static Cyan
7	Static White
8	Red Chasing / Right
9	Red Chasing / Left
10	Green Chasing / Right
11	Green Chasing / Left
12	Blue Chasing / Right
13	Blue Chasing / Left
14	Red Chasing / Middle to Ends
15	Green Chasing / Ends to Middle
16	Three Primary Color Chasing to Solid / Backward
17	Three Secondary Color Chasing to Solid / Forward
18	Three Primary Color Chasing to Solid / Middle to Ends
19	Three Secondary Color Chasing to Solid / Ends to Middle
20	Seven Color Chasing to Solid / Backward
21	Seven Color Chasing to Solid / Forward
22	Seven Color Chasing to Solid / Middle to Ends
23	Seven Color Chasing to Solid / Ends to Middle
24	Three Primary Color Scan / Forward
25	Three Primary Color Scan / Backward
26	Three Secondary Color Scan / Forward
27	Three Secondary Color Scan / Backward
28	Seven Color Scan / Forward
29	Seven Color Scan / Backward
30	Three Primary Color Scan / Middle to Ends
31	Three Primary Color Scan / Ends to Middle
32	Seven Color Scan / Middle to Ends
33	Seven Color Scan / Ends to Middle
34	Three Primary Color Flash
35	Seven Color Flash
36	Three Primary Color Jump
37	Three Secondary Color Jump
38	Seven Color Jump
39	G,B,Y Flow / Forward
40	B, Y, C Flow / Backward
41	Three Secondary Color Flow / Forward
42	Three Secondary Color Flow / Backward
43	B,Y,C,M Flow / Forward
44	Green Blue Alternating
45	Blue Yellow Alternating
46	Seven Color Flow / Forward
47	Seven Color Flow / Backward
48	Blue Comet / Backward

49	Red Comet / Forward
50	Red Comet / Backward
51	Green Comet / Forward
52	Green Comet / Backward
53	Blue Comet / Forward
54	Yellow Comet / Forward
55	Cyan Comet / Forward
56	Magenta Comet / Backward
57	White Comet / Forward
58	White Comet / Backward
59	Seven Color Comet / Backward
60	Seven Color Comet / Forward
61	C, R, C Gradual Change / Backward
62	P, R, P Gradual Change / Backward
63	P, R, P Gradual Change / Forward
64	Y, G, Y Gradual Change / Backward
65	Y, G, Y Gradual Change / Forward
66	C, G, C Gradual Change / Backward
67	C, G, C Gradual Change / Forward
68	P, B, P Gradual Change / Backward
69	P, B, P Gradual Change / Forward
70	C, B, C Gradual Change / Backward
71	C, B, C Gradual Change / Forward
72	W, R, W Gradual Change / Backward
73	W, R, W Gradual Change / Forward
74	G, R, G Gradual Change / Backward
75	G, R, G Gradual Change / Forward
76	Y, R, Y Gradual Change / Backward
77	Y, R, Y Gradual Change / Forward
78	R, Y, R Gradual Change
79	R, P, R Gradual Change
80	G, C, G Gradual Change
81	G, Y, G Gradual Change
82	B, M, B Gradual Change
83	Scan Modes 1-82

5. Controller support strip IC type as follows:

No.	IC Model	Signal Line
1	LPD6803	Data, Clock
2	TM1803	Data
3	UCS1903	Data
4	WS2811	Data
5	TM1812	Data
6	TM1809	Data
7	WS2801	Data, Clock
8	TLS3001	Data
9	TLS3008	Data
10	P9813	Data, Clock
11	LPD8806	Data, Clock
12	TM1829	Data

LED Sequence Programming

R-G-B

R-B-G

G-R-B

G-B-R

B-R-G

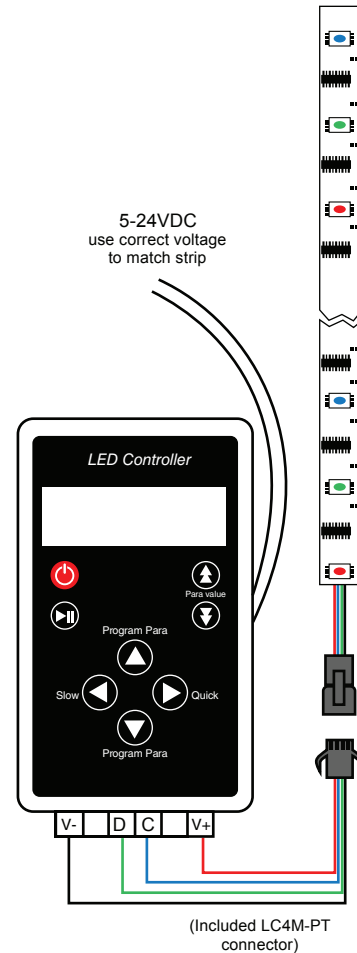
B-G-R

Pixel Number Programming

16 through 2048

Typical Application

Data and Clock Controlled Strip



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