

DMX512 LED Controller

Part Number: LW-WC9 - DigiFlex™ Ribbon TM



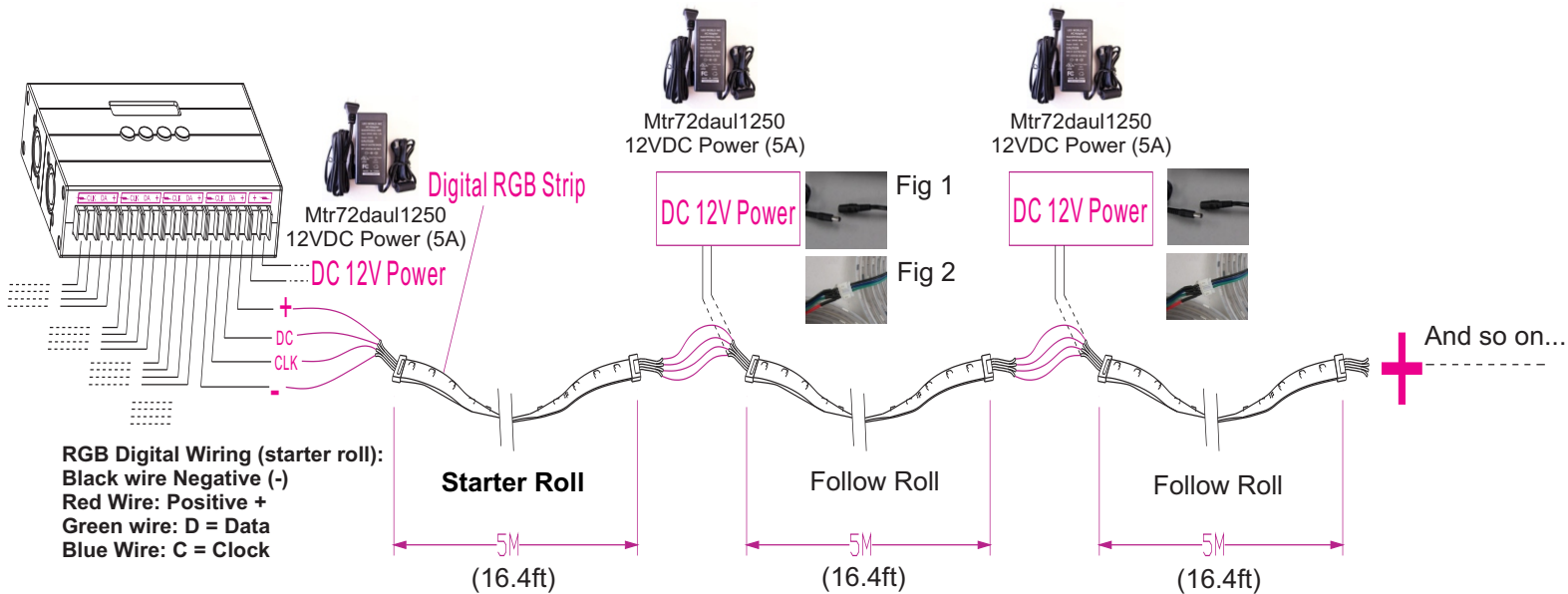
Features

- Meets DMX512(1990) protocol.
- May be used as a DMX512 Decoder.
- An LCD screen shows the controller's current working status.
- 20 normal color changing patterns, and 1 DMX operating mode.
- 32 grayscale levels
- 60 speed adjustment levels, for dynamic change
- Automatic parameter memory storage
- 1 XLR3 Male port and 1 XLR3 Female port
- Aluminum housing with black wire brush finish

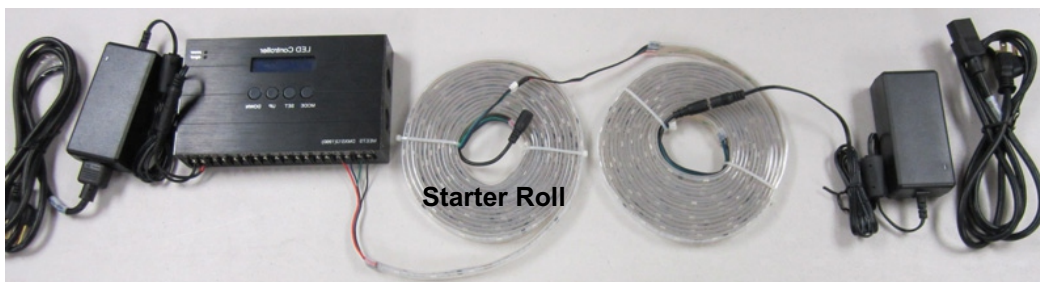
Specifications

- Input Voltage: 12V DC (regulated)
- Max Input Amps: 6 total (4 per channel)
- Indoor use: IP20
- Size: 187L X 120W X 38 H MM (7.5" X 4.5" X 1.5")
- Weight: 0.54KG (1.2 lbs)
- Input Signal: DMX512 (1990)
- Output Channel: 4 groups for simultaneous output (max 5 amps)

Setup Diagram



In Fig. 1 Connect the Mtr72daul1250 power supply to the Follow roll beginning. Fig. 2 Connect the data cable from the starter roll to the follow roll. Repeat for the following rolls. each roll has its own power supply.



Important Note! Only ONE roll can connect Wc9 DMX digital RGB controller with the MTR72DAUL1250Power supply.

Caution: When connecting DigiFlex™ RGB strips to the back of controller screw terminals, note that CLK and DA must corresponds the strips markings of CLK and DA. Power is to be attached to the + and - screw terminals on either side. There are four groups of connection terminals. Main power is to be attached at the right side marked +/-.

Remember, you must tell the controller how many metres in the run! Each roll is 5 metres long.

Set DigiRibbon™ length

- The Length range is 1-999 metres.
- Set the number according to the actual length of the DigiRibbon™
- Press the "SET" key twice to enter the "Length-Set" interface.
- Set the Length by pressing the "UP" or "DOWN" keys.
- Press the "SET" key twice or press the "MODE" key to confirm the setting and exit.

Dynamic Color Changing Patterns

1) 7 Colors Flow

- Red color flows
- Green color flows
- Blue color flows
- Yellow color flows
- Cyan color flows
- Purple color flows
- White color flows

2) 3 LEDs Move Forward then Reverse

- Red moves backwards
- Red moves forwards
- Green moves backwards
- Green moves forwards
- Blue moves backwards
- Blue moves forwards
- Yellow moves backwards
- Yellow moves forwards
- Cyan moves backwards
- Cyan moves forwards
- Purple moves backwards
- Purple moves forwards

3) 3 LEDs Move Forward Then Reverse, With Another Color Grounding

- Red moves backwards, with yellow grounding
- Red moves forwards, with yellow grounding
- Green moves backwards, with white grounding
- Green moves forwards, with white grounding
- Blue moves backwards, with green grounding
- Blue moves forwards, with green grounding
- Yellow moves backwards, with purple grounding
- Yellow moves forwards, with purple grounding
- Cyan moves backwards, with red grounding
- Cyan moves forwards, with red grounding
- Purple moves backwards, with blue grounding
- Purple moves forwards, with blue grounding

4) 7 Colors Flow Forward then Reverse

- Red flows backwards
- Red flows forwards
- Green flows backwards
- Green flows forwards
- Blue flows backwards
- Blue flows forwards
- Yellow flows backwards
- Yellow flows forwards
- Cyan flows backwards
- Cyan flows forwards
- Purple flows backwards
- Purple flows forwards
- White flows backwards
- White flows forwards

5) Colors Flow From the Middle to Both ends. Then Colors Flow From Both Ends to the Middle

- Red flows from the middle to both ends
- Red flows from both ends to the middle
- Green flows from the middle to both ends
- Green flows from both ends to the middle
- Blue flows from the middle to both ends
- Blue flows from both ends to the middle
- Yellow flows from the middle to both ends
- Yellow flows from both ends to the middle
- Cyan flows from the middle to both ends
- Cyan flows from both ends to the middle
- Purple flows from the middle to both ends
- Purple flows from both ends to the middle
- White flows from the middle to both ends
- White flows from both ends to the middle

6) Colors Flow Forwards, With Another Color Grounding

- Red flows, with green grounding
- Green flows, with yellow grounding
- Blue flows, with cyan grounding
- Yellow flows, with red grounding
- Cyan flows, with green grounding
- Purple flows, with blue grounding
- White flows, with purple grounding

7) Colors Flow Backwards, With Another Color Grounding

- Red flows backwards, with green grounding
- Green flows backwards, with cyan grounding
- Blue flows backwards, with cyan grounding
- Yellow flows backwards with red grounding
- Cyan flows backwards with green grounding
- Purple flows backwards with blue grounding
- White flows backwards with purple grounding

8) Colors Flow Forward With Grounding of the Previous Running Color

- Red flows forwards, without color grounding
- Yellow flows forwards, with red grounding
- Green flows forwards, with yellow grounding
- Cyan flows forwards, with green grounding
- Blue flows forwards with cyan grounding
- Purple flows forwards with blue grounding
- White flows forwards with purple grounding

9) Colors Flow From the Middle to Both Ends. Then Colours Flow From Both Ends to the Middle, With the Other Color Grounding

- Red flows from the middle to both ends, with cyan grounding
- Red flows from both ends to the middle, with cyan grounding
- Green flows from the middle to both ends, with purple grounding
- Green flows from both ends to the middle, with purple grounding
- Blue flows from the middle to both ends, with yellow grounding
- Blue flows from both ends to the middle, with yellow grounding
- Yellow flows from the middle to both ends, with blue grounding
- Yellow flows from both ends to the middle, with blue grounding
- Cyan flows from the middle to both ends, with red grounding
- Cyan flows from both ends to the middle, with red grounding
- Purple flows from the middle to both ends, with green grounding
- Purple flows from both ends to the middle, with green grounding
- White flows from the middle to both ends, without color grounding
- White flows from both ends to the middle, without color grounding

10) Moving Rainbow Pattern

- 11) Static red
- 12) Static green
- 13) Static blue
- 14) Static yellow
- 15) Static purple
- 16) Static cyan
- 17) Static white
- 18) 3 color dots run
- 19) 6 color dots run
- 20) Automatic play of the all 19 modes

21) DMX 512 control mode

Set Speed

- The Speed range is 0-60.
- The larger the number, the faster the Speed.
- Press the key "SET" to enter the "Speed-Set" interface.
- Adjust Speed by pressing the "UP" or "DOWN" keys.
- After the Speed is set, press the "SET" key twice or the "MODE" key to confirm the setting and exit.

Set DigiRibbon™ length

- The Length range is 1-999 meters.
- Set the number according to the actual length of the DigiRibbon™
- Press the "SET" key twice to enter the "Length-Set" interface.
- Set the Length by pressing the "UP" or "DOWN" keys.
- Press the "SET" key twice or press the "MODE" key to confirm the setting and exit.

Set Brightness

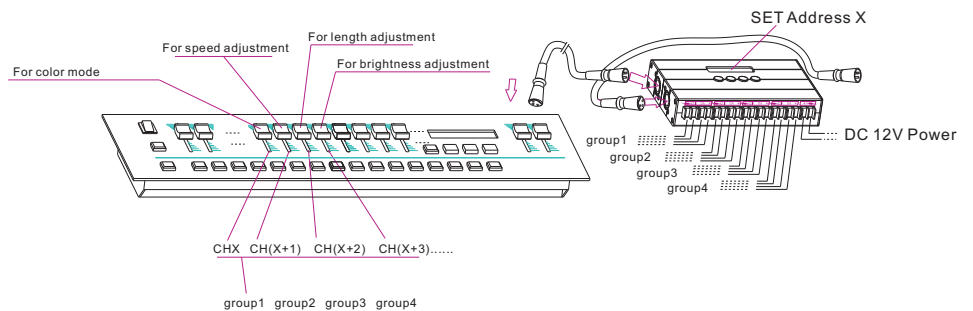
- The Brightness range is 0-31.
- The larger the number, the greater the Brightness.
- Press the "SET" key 3 times to enter the "Brightness-Set" interface.
- Adjust the Brightness by pressing the "UP" or "DOWN" keys.
- Press the "SET" or "MODE" keys to confirm the setting and exit.

Working With DMX512 Console

1) Individual Controller Works With one DMX512 Console

If the Address Code is set to "X", the corresponding channels on console will be CH X to CH(X+3)

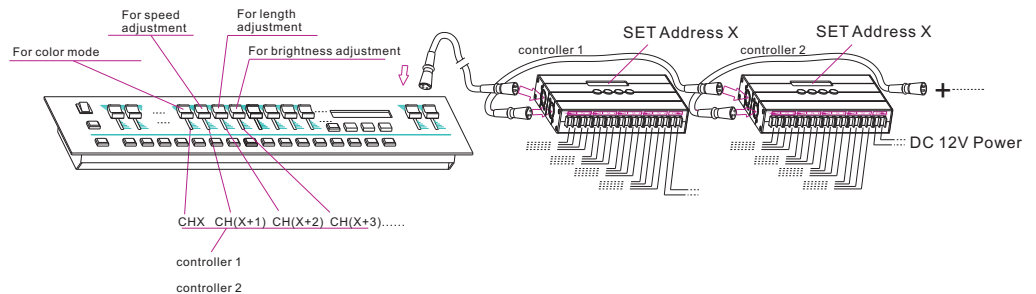
- CH X sets the Dynamic Color-changing Pattern.
- CH(X+1) sets the Speed.
- CH(X+2) sets the Length.
- CH(X+3) sets the Brightness.



2) To achieve: Multiple Controllers working with one DMX512 Console. All Controllers have the synchronous Dynamic Color Changing Patterns, Speed and Brightness adjustment.

If Controller 1's Address Code is set to X, then the other Controllers' Address Codes must also be set to X.

- CH X sets the Dynamic Color-changing Pattern.
- CH(X+1) sets the Speed.
- CH(X+2) sets the Length.
- CH(X+3) sets the Brightness.

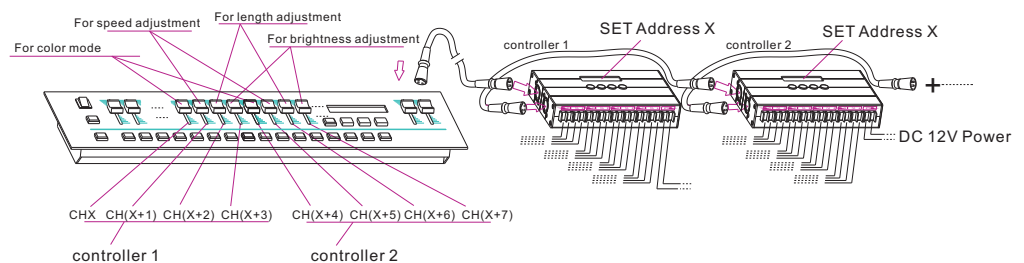


3) To achieve: Multiple Controllers working with one DMX512 console. Each Controller has different Dynamic Color Changing Patterns and Speed adjustment.

If Controller 1 Address Code is set as X, then Controller 2 will be set as X+4 and Controller 3 set as X+8.

Each Controller will still use the same settings. In the following chart "Y" refers to each Controller's Address Code. (IE: For Controller 1 Y=X, for Controller 2 Y=X+4, for Controller 3, Y=X+8, etc.)

- CH Y sets the Dynamic Color-changing Pattern.
- CH(Y+1) sets the Speed.
- CH(Y+2) sets the Length.
- CH(Y+3) sets the Brightness.



Safety Information

1. The user should make sure the Controller and all LED lights have the operating voltage of 12V DC before powering.
2. This Controller can only work with the LED World INC. DigiFlex™ series of products.
3. The Controller is not water resistant so it is not approved for outdoor and/or damp and/or wet environments (indoor use only).
4. An additional 12V DC power supply is required for **each 5 meter roll** of DigiFlex™ RGB to ensure adequate power is provided along the whole run. 100 meters is the max length. See diagram above.

WARNING: ONLY QUALIFIED PERSONNEL SHOULD PERFORM INSTALLATION.

TO AVOID ELECTRICAL SHOCK OR COMPONENT DAMAGE, DISCONNECT POWER BEFORE ATTEMPTING INSTALLATION OF THE POWER SUPPLIES AND/OR MODULES (FLEX STRIP).

DISCONNECT POWER BEFORE INSTALLING OR CUTTING!

Failure to install the power supplies and/or LED modules in accordance with the National Electric Code (NEC), all applicable Federal, provincial, State and local electric codes as well as the specific Underwriters Laboratories or CSA (UL/CSA) safety standards for the installation, location and application may cause serious personal injury, death, property damage and/or product malfunction. These instructions are guidelines for installation modules and power supplies. Installation requirements may vary depending on the application. Licensed electricians should provide all installation services for connection of both primary and secondary (input/output) of the power supplies.

Correct electrical polarity needs to be observed. Incorrect polarity may destroy the module. When connecting DigiFlex™ RGB strips to the back, note that CLK and DA must correspond to the strips markings of CLK and DA. Power is to be attached to the + and - screw terminals. All LED modules, up to the maximum number allowable for the power supply, should be installed in a parallel electrical connection. The LED controller incorporates no protection against short circuits, overload or overheating. Therefore it is necessary to operate the modules with an electronically stabilized power supply offering protection against the above mentioned safety risks.

When using power supplies; the following basic safety features should be verified in addition to any other application specific concerns and local safety codes:

- Short circuit protection
- Overload protection
- Overheat protection
- Correct wire gauge
- Correct output voltage, including consideration for ripple and spikes.