

## RGB LED FLEX RIBBON

ZFS-10504-RGB



### ZFS RGB Ribbon:

ZFS-10504-RGB 12V RGB LED - 10mm width  
 ZFS-105000-24RGB 24V RGB LED - 10mm width

### Dimmers & Controllers:

ZCTR-06 LED RGB Controller  
 ZCTR-04 LED Ambient Light Switch  
 ZDM-01 LED Manual Dimmer

### Joiner Connectors:

ZCH-170-RGB-J  
 ZFS-CH0-RGB10J  
 ZFS-CHBB-10RGBJ  
 ZFS-CHXB-10RGB



ZFS-10504-RGB



ZCH-170-RGB-J



ZFS-CH0-RGB10J

### APPLICATIONS

- CABINET LIGHTING
- COVE LIGHTING
- COSTUME LIGHTING
- MENU BOARDS
- LANDSCAPE
- ARCHITECTURAL
- SIGN BACKLIGHTS
- SPECIAL EFFECTS

### INSTALLATION & POWER

The RGB LED flex ribbon is UL listed and has adhesive backing with a paper cover strip that can be peeled away for mounting to most hard surfaces. Insulated staples can also be used to mount the LED flex ribbon with care. If one LED is damaged, the segment may not light but the rest of the flex ribbon will light, unless the main trace is damaged. If this is the case, the damaged section can be cut out and the two pieces joined together using the ZFS-CH0-RGB10J.

The 5 meter reel of ribbon is made up of segments containing LEDs and a current controlling element. Marks at the beginning and end of each segment show where the ribbon can be cut with a pair of sharp scissors or wire cutters without losing the function of the LEDs. Joiner connector ZCH-170-RGB-J can be used to connect the ribbon to a power supply, dimmer or controller. A full reel of the 12V ZFS-10504-RGB contains 150 LEDs with a maximum wattage of 36 Watts. A 45 Watt power supply is recommended to allow for a 20% margin when the full reel is used. A full reel of the 24V ZFS-105000-24RGB contains 300 LEDs with a maximum wattage of 72 Watts. A 90 Watt power supply is recommended to allow for a 20% margin when the full reel is used.

The maximum recommended continuous length for the ZFS-10504-RGB or the ZFS-105000-24RGB is five meters - one reel.

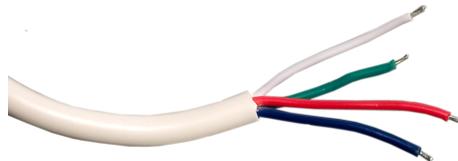


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## ZFS- 10504-RGB

RGB CONTROLLER  
INPUT CABLERGB CONTROLLER  
OUTPUT CABLERGB LED RIBBON  
CONNECTOR CABLE**RGB CONTROLLER  
SET-UP**

JKL's LED RGB Flex Ribbon comes in reels that are 5 meter long (16 feet) with 190mm (7.5 inches) of connector cable at each end of the reel. The connector cable has four wires, one for each color, Red, Green and Blue, and a black wire for the voltage input.

The RGB controller (ZCTR-06) comes with one connector for the voltage input and for connecting to the LED ribbon. The RGB controller output consists of four connections, one for each color, Red, Green and Blue, and a connection for the voltage output. The red, green and blue wires on the controller output cable correspond to those of the same color on the LED ribbon connector cable.

The V+ connection of the RGB controller input is to be connected to a power supply output positive wire or terminal. The V- connection of the input cable is to be connected to a power supply output negative wire or terminal.

## STATIC COLOR MODES



## FLASH MODE #1



## FADE MODE #1



## FLASH MODE #2



## FADE MODE #2

**RGB CONTROLLER  
OPERATION**

With the power supply, RGB controller and LED RGB Flex Ribbon connected, turn on the power supply. Turn on the controller using the red On/Off button on the remote.

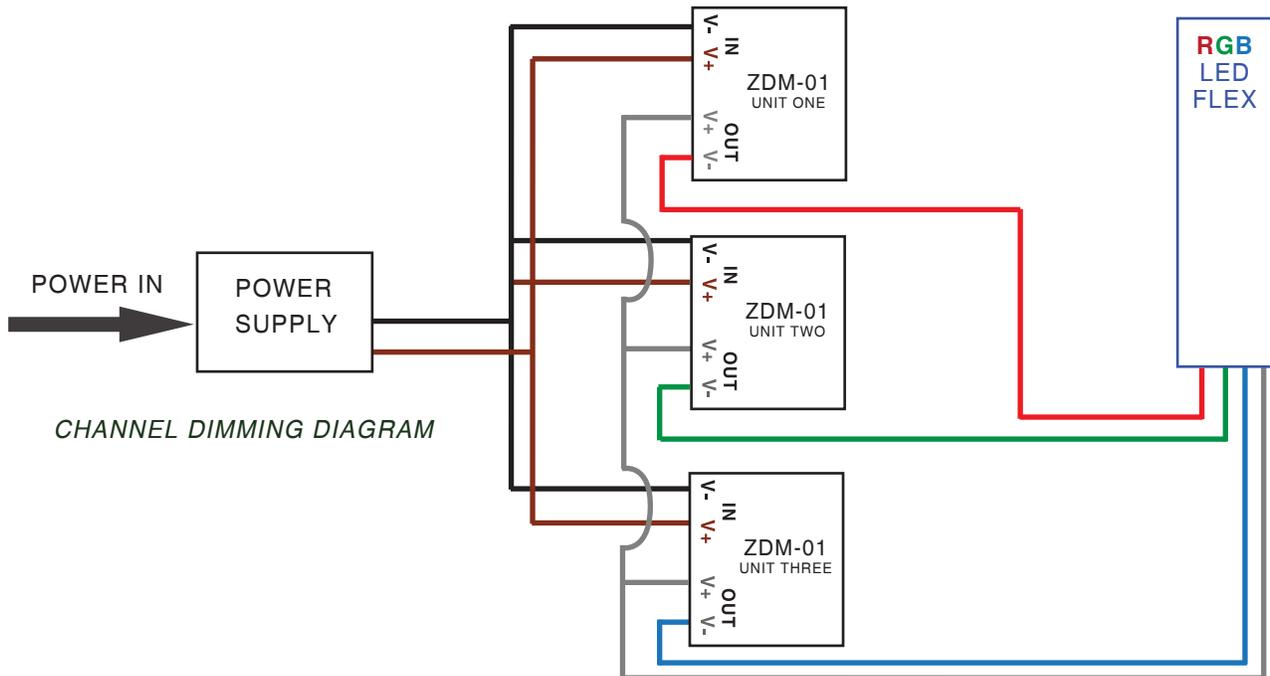
Pressing the mode button repeatedly toggles through each color mode - seven static color modes, two "flash" modes, two "fade" modes, strobe modes and 3 crossfade modes. When set in a static color mode the brightness can be controlled.

In the two "flash" modes the LED ribbon will flash the colors on and off in sequence. The first flash mode gives a rotation of red, green and blue. The second flash mode will cycle through red, yellow, green, cyan, blue and violet. The next two "fade" modes give the same two color sequences but instead of flashing, the LEDs fade gently in and out of each color. With all modes other than static the speed of the color changing can be adjusted by pressing the speed up & speed down buttons. However, the brightness cannot be adjusted.

When the power supply is turned off the memory in the RGB controller will remember the last settings used and the same color mode will be in use when the controller is turned back on.

## SINGLE CHANNEL COLOR DIMMING

Single channel dimming for the red, green and blue LEDs can be accomplished using a Pulse Width Modulating (PWM) dimmer, such as the ZDM-01, which will maintain operating voltage to the ribbon. To manipulate the individual R-G-B color channels in the ribbon, three dimmers can be used as described in the *Channel Dimming Diagram*.



ZDM-01

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