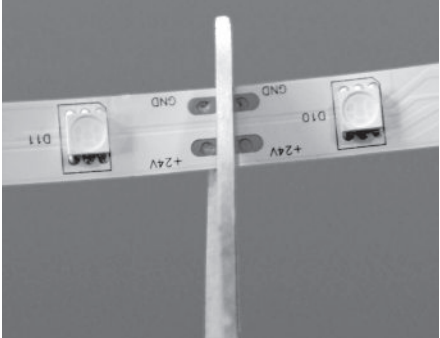


STEPS FOR INSTALLATION

1. Shut off power supply at the lighting panel circuit before starting installation.
2. Measure the length of surface to which LED Strip Series will be installed.
3. LED Strip series can be cut every 4" (101mm) for 5060-60 or every 6.5" (165mm) for 5060-30 series for termination purposes only. Be careful to use sharp cutting scissors and cut directly on the marked cutting line when cutting product to desired length.



Cut pieces of LED Strip cannot be re-joined. The left over piece can be powered with attached power feed at opposite end.

- Note: Maximum single run is 20' for 5060-60 series, 40' for 5060-30 series and 16' for CCT colour adjust series. Note there are no connectors for joining outdoor CCT colour adjust series.**
4. Make sure surface to be mounted to is smooth and clean of any dust or oils. Gently pull backing off of self adhesive on back of LED Strip Series.
 5. Push down gently on tape portion of LED Strip Series to assure a firm adhesion to mounting surface being careful not to damage LEDs during this process.
 6. For porous surfaces that will not allow a firm grip with the self adhesive backing, we recommend that you use clear 3/8" U channel (Magic Lite Part # VO-C10-8) which can be screwed to the surface first. The LED Strip Series can then be mounted inside the U channel. Also available for mounting to surfaces that will accept screws or nails are our mounting clips (Magic Lite Part # LV-FS-MC-004).

CONNECTING LED STRIP TO LOW VOLTAGE POWER SUPPLY

1. Magic Lite Ltd. LED Strip Series runs on class 2, 24 Volt power supply. Use only power supplies from Magic Lite Ltd. listed in these instructions. Be sure to match appropriate power supply to length of LED Strip Series being used and observe maximum and minimum load requirements.
2. **Connecting new roll of LED Strip Series to Power:** Connect one end of LED Strip with power feed connector to low voltage (24V) side of power supply noting + and – markings on LED strip. Make sure to use appropriate size power supply for length of material. Maximum run is 20'.

Note: There are power feeds at both ends of the 20' rolls. Make sure the end cap is securely fastened to the dead end to prevent water from getting into connector.

Do not connect power to both ends of product as this could produce a fire hazard. Connect power to only one end of LED Strip Series products.

Note: CCT colour adjust series has connector at only one end.

When connecting power to a piece of LED Strip that has been previously cut, use power feed provided at the end of the length. (Each 20' roll comes with a power feed attached at each end). 16' Rolls of CCT colour adjust come with connectors at only one end.

Note: Place endcap (ML Part # LV-FS-EC-001) and secure with silicone on dead end of LED Strip.

3. Connect wires from power feed connector to low voltage side of power supply noting + / - polarity markings on power supply and connector.
4. Connect low voltage power supply to main (120 Volt). **Note: 120 volt connections to power supply should be carried out by a qualified electrician.**
5. LED Strip Series will energize within 10 seconds of turning on power supply. If entire length does not turn on, check connection of LED Strip Series to low voltage side of power supply. Check line voltage connection to power supply if necessary.
6. Cut pieces of outdoor LED Strip cannot be joined together.

CONTROL OF RGB LED STRIP SERIES

Note: As LED Strip Series is powered by class 2, 24V power supplies, you will need one power supply and one controller for the first 20' run of LED Strip Series. A signal amplifier and additional class 2 power supply will be required for each additional 20' run of LED Strip Series.

In outdoor situations, Power supplies, controllers and repeaters must be placed in weather proof enclosures.

1. Connect colour coded wires from female end of power feed connector to output side on Controller. The output side of the controller is marked +, R, G, B to match wire colours from power feed. The black wire on the power feed goes to the + terminal on the controller.
2. Connect this female end to male end attached to RGB outdoor LED strip making sure connection is secured tightly to keep water out.



3. Connect input side of controller to appropriate size of 24V power supply from list of approved power supplies.

Note: Use only MLDR-120-24 or MLDR-20-24JB power supplies when controlling RGB LED Strip. Do not use Dimmable power supplies for colour change applications.

4. Connect line voltage side of power supply to line voltage.

Note: Line voltage connections should be carried out by a qualified electrician.

For Installations with multiple lengths of RGB LED Strip, you will need a signal amplifier for each additional run as follows:

CONTROL OF RGB LED STRIP SERIES continued

NOTE: As LED Strip Series is powered by class 2, 24V power supplies, you will need one power supply and one controller for the first 20' run of LED Strip Series. A signal amplifier and additional class 2 power supply will be required for each additional 20' run of LED Strip Series.

1. Connect colour coded wires from power feed connector to output side on Controller. The output side of the controller is marked +, R, G, B to match wire colours from power feed. The black wire on the power feed goes to the + terminal on the controller.



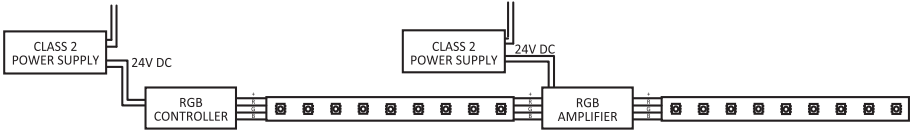
2. Connect input side of controller to appropriate size of 24V power supply from list of approved power supplies.

NOTE: Use only MLDR-120-24 or MLDR-20-24JB power supplies when controlling RGB LED Strip. Do not use Dimmable power supplies for colour change applications:

3. Connect line voltage side of power supply to line voltage.

NOTE: Line voltage connections should be carried out by a qualified electrician.

For Installations with multiple lengths of RGB LED Strip, you will need a signal amplifier for each additional run as follows:



CONTROL OF CCT LED STRIP SERIES

NOTE: As LED Strip Series is powered by class 2, 24V power supplies, you will need one power supply and one controller for the first 16' run of LED Strip Series. A signal amplifier and additional class 2 power supply will be required for each additional 16' run of LED Strip Series.

2. Connect colour coded wires from power feed connector to output side on Controller. The output side of the controller is marked W, C, C, V+. Connect Red wire from power feed to W, green wire to either C and white wire to V+.



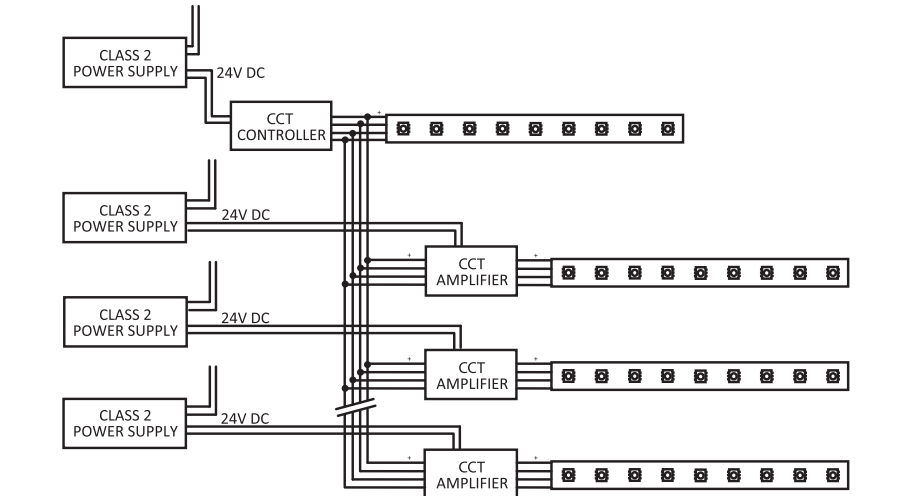
3. Connect input side of controller to appropriate size of 24V power supply from list of approved power supplies.

NOTE: Use only MLDR-120-24 or MLDR-20-24JB power supplies when controlling CCT Adjust LED Strip. Do not use Dimmable power supplies for colour change applications:

4. Connect line voltage side of power supply to line voltage.

NOTE: Line voltage connections should be carried out by a qualified electrician.

For Installations with multiple lengths of CCT LED Strip, you will need a signal amplifier for each additional run as follows:

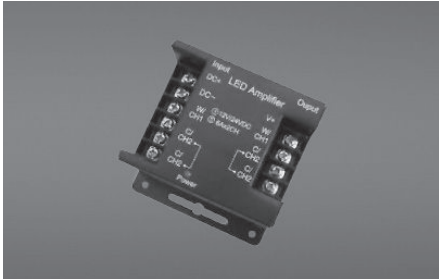


1. Connect power feed from bitter end of outdoor tape to input feed of outdoor signal amplifier.
2. Connect next LED Strip to output side of signal amplifier.
3. Using part # LV-CN-G2, connect output side of power supply to power in feed in outdoor signal amplifier.
4. Connect primary side of power supply to mains voltage.



SUMMARY:
The RGB amplifier receives Pulse Width modulation (PWM) signal from the controller allowing you to do multiple runs from a single controller. They are powered individually by a class 2 power supply. The power supply should match the wattage of the length of LED Strip series you are controlling.

1. Connect wires from output of controller to input side of signal amplifier.
2. Connect next LED Strip to output side of signal amplifier.
- NOTE:** White wire on power feed connectors goes to + on both input and output of signal amplifier.
3. Connect Jack adaptor wires to low voltage side of class 2 power supply. We recommend using our BS-9 terminal block and BS-11 Connection box for this connection.
4. Connect primary side of power supply to mains voltage.



SUMMARY:
The CCT amplifier receives Pulse Width modulation (PWM) signal from the controller allowing you to do multiple runs from a single controller. They are powered individually by a class 2 power supply. The power supply should match the wattage of the length of LED Strip series you are controlling.

NOTE: Controllers and amplifiers must be placed in weather proof outdoor enclosures for outdoor installations.

SPECIFICATIONS	
Input Voltage	24V DC
Power Consumption	LP-5060-60-24 Series: 4.3W/FT LP-5060-30-24 Series: 2.2W/FT RGB colour change series: 4.3W/FT CCT series: 5.8W/FT
LED Type	High power 5060 SMD LEDs 3528 SMD for CCT series
# of LEDs per foot (304mm)	18 for 5060-60 series, 9 for 5060-30 series, 36 for CCT series
Viewing Angle	120°
Efficacy	75 LPW Cool White 66 LPW Warm White 70 LPW CCT (average)
Average LED Life	50,000 hours to 70% initial lumen output
Colour Temperature	6500K Cool White 3000K Warm White 2500K – 7000K CCT series
Custom Cuttability	Every 4" (102mm) for 5060-60 series Every 6.5" (165mm) for 5060-30 series CCT Adjust factory only
Approvals Listing	cETLus

RGB AMPLIFIER TECHNICAL PARAMETERS	
Working temperature	-20C – +60C
Supply voltage	Class 2, 24V
Output	3 channels
External dimensions	L 114mm x W 65mm x H 25mm
Net weight	110G
Static power consumption	< 1W
Efficacy	< 4A each channel
Maximum length of LED Strip per amplifier	20'

Must be placed in approved outdoor box for outdoor applications.

LED STRIP SERIES POWER SUPPLIES

DIMMABLE DRIVERS
See the Magic Lite catalogue for a list of compatible dimming systems.

MLDRE-40-24-DM
Max. recommended load 36W or 8' LED Strip, min. 8W or 2' LED Strip.
5.03" x 2.14" x 2" (127.76 x 54.36 x 50.80mm)

MLDRE-96-24-DM
Max. recommended load 90W or 20' LED Strip, min. 8W or 2' LED Strip
7.56" x 3.06" x 2.94" (192.02 x 77.72 x 74.68mm)

NON DIMMABLE DRIVERS

MLDR-20-24JB
Max. recommended load 18W or 4' LED Strip 20W hardwire. Max. = 3.5' CCT Colour Change.
Input: 100 – 240V AC
Output: 24V DC
4 1/8" x 4 1/8" x 1 1/2" (104.8 x 104.8 x 38.1mm)

MLDR-120-24
Max. recommended load 90W (20' LED Strip) per single tap, 120W (28' LED Strip) combined two secondary taps.
Max. = 16' CCT Colour Change.
120W hardwire
Input: 100 - 240V AC
Output: 24V DC
10" x 3 3/8" x 3 3/16" (254 x 85.7 x 80.9mm)

NOTE: Above maximum and minimum lengths are for LP-5060-60 series. You may double these when using LP-5060-30 series.

WARNING AND CAUTIONS

1. Do not operate with the flexible light tightly coiled.

2. During installation, make sure flexible light isn't receiving electricity in any manner.

3. Make sure the voltage marked on your light strip matches the power supply.

4. Do not overlap this product as the overlapping may cause the flexible light to overheat and melt or ignite.

5. Do not puncture, cut, shorten, or splice the flexible lighting.

6. Do not route flexible lighting through walls, doors, windows or any like part of the building structure. See wiring diagrams for remote power source installations.

7. Do not use if there is any damage to the light or cord insulation. Inspect periodically.

8. Do not submerge flexible light in liquids, or use the product in the vicinity of standing water or other liquids. Keep all parts of LED Strip Series installation at least 10 feet (305cm) from any swimming or decorative pool.

9. Secure this flexible light using only the hangers or clips provided. Do not secure this product or its cord with staples, nails, or like means that may damage the insulation.

10. Do not subject flexible lighting to continuous flexing.

11. Do not exceed the length in feet permitted by the marking.

12. Make sure to disconnect the power before adding segments.
13. Only use extension segments provided with the entire set of product.

14. To preclude the entry of water, make sure that all connections between section segments are secure.

15. Do not bend the LED Strip Series in the horizontal plane at all. Use "T", "+", "L", or step cords instead. Maintain a minimum 2" (5.1cm) radius in the vertical plane.

16. Do not subject flexible light to over 15 lbs. of tensile force.

17. When connecting the flexible light with connectors, step cord, and the power supply (LED driver), make sure the polarity markings are correctly matched.

18. When using outdoor use portable lighting products, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following:

(a) Ground Fault Circuit Interrupter (GFCI) protection should be provided on the circuits or outlet to be used for the outdoor use of flexible lighting product. Receptables are available having built-in GFCI protection for this measure of safety.

(b) Use only listed outdoor extension cord from 110VAC source to LED Driver, such as type SW, SOW, STW, STOW, SJW, SJOW, SJTW, or SJTOW. This designation is marked on the wire of the extension cord.

ACCESSORIES



LV-CN-G2
Power feed connector for single colour outdoor




LV-CN-G4
Power feed connector for RGB outdoor



BS-9
Terminal Block



BS-11
Connection Box to house terminal block connections



LV-FS-MC-004
Mounting Clips



LV-FS-EC-001
End Caps



LV-LB-D3-FR+
Recessed Aluminum Extrusion and Frosted PC Cover




LV-LB-W3-FR+
Surface mounted Aluminum Extrusion and Frosted PC Cover



LV-LB-V3-FR+
Corner surface mounted Aluminum Extrusion and Frosted PC Cover



VO-C10-8
Clear U Channel



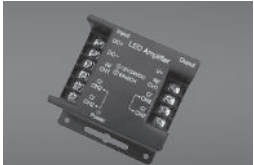
LT-09S-RF
3 channel controller for RGB Strip Series*



MLS-LV-ZIFFS-3CH-6NW
Outdoor Signal amplifier for outdoor.



LT-031-RF
CCT LED Strip Series Controller



LT-290A
Signal amplifier for CCT LED Strip Series



LT-032-RF
6 key dimming controller

* Must be placed in appropriate outdoor box for outdoor use.
† Extrusions come in 1 metre lengths. End caps and mounting clips are available, sold separately.


A large graphic showing a roll of LED strip light with a hand pointing to it. The background is dark with the text "INSTALLATION AND SAFETY INSTRUCTIONS" at the top, "LED Strip Series" in large white letters in the middle, and "OUTDOOR" at the bottom.

Applications

- Aisle and stairway lighting
- Cabinet and Cove lighting
- Deck and patio lighting
- Pathway lighting
- Building facades and outlines
- Back lighting
- Showcase lighting
- Linear decorative lighting

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