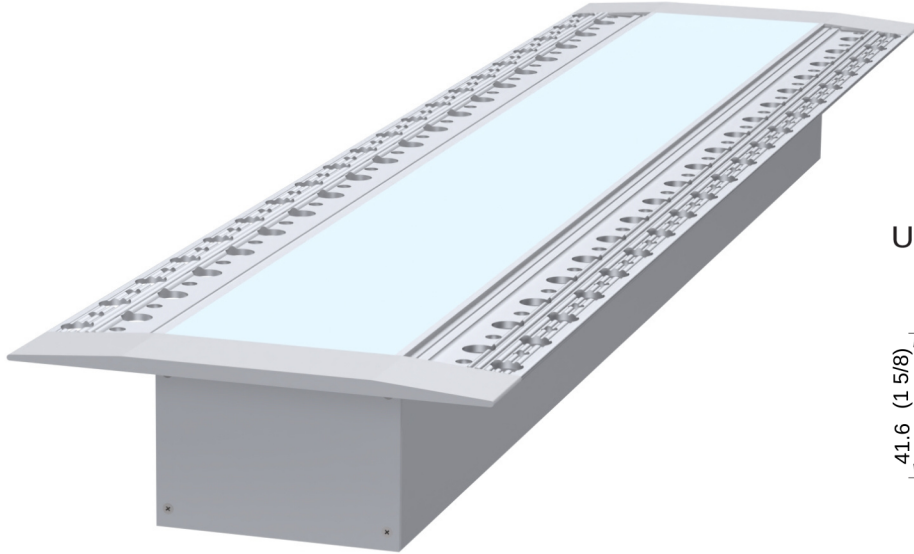
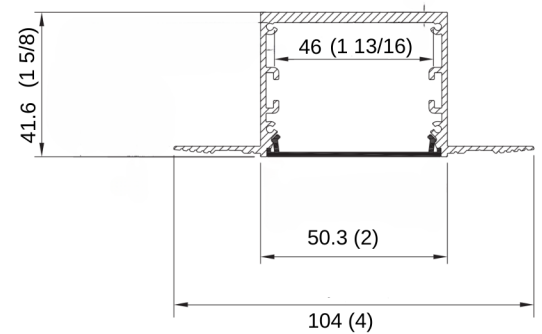


PHANTOM 2 LED FIXTURE



Unit: mm (inch)



Product Features

Color/CCT	3000K, 4000K, 5000K, 6000K, RGBW
Input Voltage	24 VDC (Requires External Class 2 Power Supply)
Dimming Protocol	PWM, 0-10V, Triac, DMX, DALI
Dimensions:	50 mm (W) x 35 mm (H) 2 in (W) x 1 3/8 in (H)
Aperture Width	50 mm 2 in
Standard Lengths	600mm (23 5/8in), 1000mm (39 3/8in), 1200mm (4ft), 1500mm (5ft), 1800mm (6ft), 2000mm (6ft 6in), 2400mm (8ft), 3000mm (10ft), Custom*
Lumens	(based on 3000K): Phantom 2 30W (HO2) 2520 lm/m, Phantom 2 45W (HO3) 3780 lm/m, Phantom 2 CFS2 1880 lm/m
Beam Angle	180°
Operational Temperature	Operating Temperature: -20°C (-4°F) to 60°C (140°F)
Key Design Features	Robust Construction, High Thermal Management, Trimless Aesthetic
Certifications	CE, RoHS, ETL (Components)
Lifespan	50,000 Hours

ORDERING CODE

SERIES		CCT		WATTAGE		LENGTH
PHAN2	+	30	+	HO2	+	6
Phantom 2 Series		3000K (30) 4000K (40) 5000K (50) 6000K (60) RGB+3000K (RGB30)* RGB+5000K (RGB50)*		30 W/m (HO2) 45 W/m (HO3) 44 W/m (CFS2)		600 mm (6) 1000 mm (10) 1200 mm (12) 1500 mm (15) 1800 mm (18) 2000 mm (20) 2400 mm (24) 3000 mm (30) Custom***

*RGB+3000K and RGB+5000K Models are only available in 22 W/m.

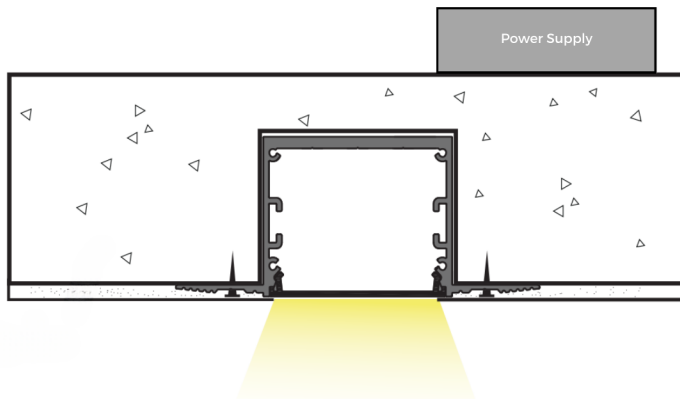
**If a CCT is not available please advise our Sales Team and we can customize any required CCT. Previous customised CCT included 2200K, 2400K, 2700K and 10000K.

***Custom Lengths are available up to the highest available dimension.

Product Specifications

SKU	Lumens	Luminous Efficiency	CRI
PHAN2-30HO2	2520 lm/m (766 lm/ft)	84 lm/W	90
PHAN2-40HO2	2672 lm/m (812 lm/ft)	89 lm/W	90
PHAN2-50HO2	2732 lm/m (831 lm/ft)	91 lm/W	90
PHAN2-60HO2	2696 lm/m (820 lm/ft)	90 lm/W	90
PHAN2-30HO3	3780 lm/m (1149 lm/ft)	84 lm/W	90
PHAN2-40HO3	4008 lm/m (1218 lm/ft)	89 lm/W	90
PHAN2-50HO3	4098 lm/m (1246 lm/ft)	91 lm/W	90
PHAN2-60HO3	4044 lm/m (1229 lm/ft)	90 lm/W	90
PHAN2-RGB30-CFS2	1880 lm/m (328 lm/ft)	42 lm/W	90
PHAN2-RGB50-CFS2	2000 lm/m (368 lm/ft)	45 lm/W	90

Product Configuration



Remote Power Supply:
External from fixture, must use voltage calculation for maximum distance and wire gauge. Dimmable and Non-Dimmable. Must be accessible.

Electrical Specifications

Input Voltage (Non-Dimmable): 110-240 VAC

Input Voltage (Dimmable): 120 VAC

Maximum Serial Connection: 5 m (16 ft)

Maximum lights per breaker, please see chart below:

	PHAN2-30/40/50/60HO2	PHAN2-30/40/50/60HO2	PHAN2-RGB30/50-CFS
15A Breaker	60 M or 196 Ft	40 M or 131 Ft	40 M or 131 Ft
20A Breaker	80 M or 262 Ft	53 M or 174 Ft	53 M or 174 Ft

Based on 120V Input

Fixture must be installed by a qualified and licensed electrician in accordance with all national and local electrical codes and regulations. If there are concerns about any information in this document please contact us before installation.

WARNING: DO NOT HANDLE FIXTURES BY WIRES. Do not attempt to install or use without reading the installation instructions and safety labels.

This could result in permanent damage to both the fixture and the cables. Damage resulting from grasping the cables will not be covered under warranty.

DANGER: To reduce the risk of electrical shock, always unplug the device or switch off break.

To reduce the risk of burn:

- Use light fixture only of its intended use as described in these instructions.
- Do not use attachments not recommended by Caribbean LED Solutions.
- Do no modify or try to open the fixture.
- Never operate the light if it has a damaged cord, cable or plug, if it not working properly, if it has been dropped or damaged, or dropped into water. If the seal appears to be damaged/broken/torn return the fixture to a service center for examination or repair.
- Keep cables away from heated surfaces.
- Never drop or insert any object into any opening.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- Always refer to maximum amperage ratings per device when integrating control components.

VOLTAGE DROP GUIDE

12 VDC Single Color LED Flexistrip

Wattage	AWG 10	AWG 12	AWG 14	AWG 16	AWG 18	AWG 20	AWG 22
20 W	70.1 m (230 ft)	44.2 m (145 ft)	27.7 m (91 ft)	17.3 m (57 ft)	11 m (36 ft)	7 m (23 ft)	4.2 m (14 ft)
40 W	35.6 m (117 ft)	22.2 m (73 ft)	13.7 m (45 ft)	8.8 m (29 ft)	5.4 m (18 ft)	3.3 m (11 ft)	2.1 m (7 feet)
60 W	23.7 m (78 ft)	14.3 m (47 ft)	9.1 m (30 ft)	5.7 m (19 ft)	3.6 m (12 ft)	2.1 m (7 ft)	1.2 m (4 ft)
80 W	19.8 m (65 ft)	12.1 m (40 ft)	7.6 m (25 ft)	4.8 m (16 ft)	3 m (10 ft)	1.8 m (6 ft)	1.2 m (4 ft)
100 W	13.7 m (45 ft)	8.8 m (29 ft)	5.4 m (18 ft)	3.3 m (11 ft)	2.1 m (7 ft)	1.2 m (4 ft)	0.9 m (3 ft)

*Calculations are based 8% voltage drop to 11 VDC.

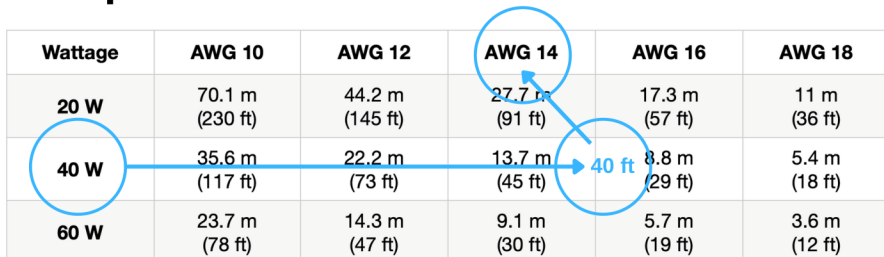
24 VDC Single Color LED Flexisrip

Wattage	AWG 10	AWG 12	AWG 14	AWG 16	AWG 18	AWG 20	AWG 22
20 W	274.3 m (900 ft)	182.8 m (600 ft)	121.9 m (400 ft)	76.2 m (250 ft)	45.7 m (150 ft)	22.8 m (75 ft)	15.2 m (50 ft)
40 W	137.1 m (450 ft)	91.4 m (300 ft)	61 m (200 ft)	36.5 m (120 ft)	21.3 m (70 ft)	13.7 m (45 ft)	9.1 m (30 feet)
60 W	91.4 m (300 ft)	59.4 m (195 ft)	36.5 m (120 ft)	23.1 m (76 ft)	14.6 m (48 ft)	9.1 m (30 ft)	5.8 (19 ft)
80 W	70.1 m (230 ft)	44.2 m (145 ft)	27.4 m (90 ft)	17.3 m (57 ft)	11 m (36 ft)	7 m (23 ft)	4 m (13 ft)
100 W	56 m (184 ft)	35.3 m (116 ft)	22.2 m (73 ft)	14 m (46 ft)	8.8 m (29 ft)	5.7 m (19 ft)	3.3 m (11 ft)

*Calculations are based 8% voltage drop to 22 VDC.

Example:

Wattage	AWG 10	AWG 12	AWG 14	AWG 16	AWG 18
20 W	70.1 m (230 ft)	44.2 m (145 ft)	27.7 m (91 ft)	17.3 m (57 ft)	11 m (36 ft)
40 W	35.6 m (117 ft)	22.2 m (73 ft)	13.7 m (45 ft)	8.8 m (29 ft)	5.4 m (18 ft)
60 W	23.7 m (78 ft)	14.3 m (47 ft)	9.1 m (30 ft)	5.7 m (19 ft)	3.6 m (12 ft)



This voltage drop chart estimates the appropriate wire gauge to use based on power consumption (watts) and distance to the luminary. Use the charts above to identify the recommended wire gauge by finding the intersection of the rounded up wattage of your LED luminary and the distance to your power supply. Note that these charts give an estimation and final calculations must be verified by an engineer or a licensed electrician.

POWER SUPPLIES

Plug-In Power Supply



PART NAME: Power Supply Adaptor Series
 Input: 120-240 VAC, 50/60 Hz, US Plug Type
SKU:
 A601260 (60W 12V Model)
 A92496 (96W 24V Model)

Hardwire Power Supply Indoor



PART NAME: Power Supply Slim Series
 Input: 120-240 VAC, 50/60 Hz
SKU:
 S1220 (20W 12V Model) | S2420 (20W 24V Model)
 S1230 (30W 12V Model) | S2430 (30W 24V Model)
 S1240 (40W 12V Model) | S2440 (40W 24V Model)

Hardwire Power Supply Outdoor



PART NAME: Power Supply Meanwell LPV Series
 Input: 90-264 VAC, 50/60 Hz
SKU:
 LPV1260 (60W 12V Model) | LPV2460 (60W 24V Model)
 LPV12100 (100W 12V Model) | LPV24100 (100W 24V Model)

Switching Power Supply



PART NAME: Power Supply Switching LRS Series
 Input: 120-240 VAC, 50/60 Hz
SKU:
 LRS12150 (150W 12V Model) | LRS24150 (150W 24V Model)
 LRS12200 (200W 12V Model) | LRS24200 (200W 24V Model)
 LRS12350 (350W 12V Model) | LRS24350 (350W 24V Model)

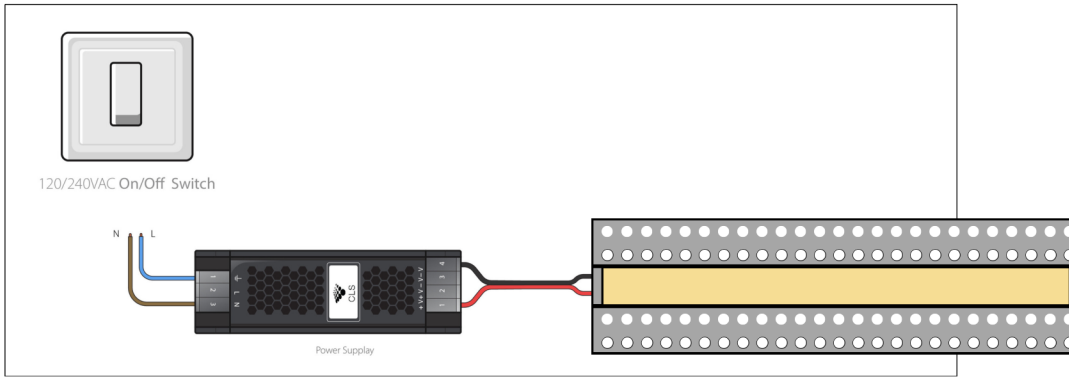
Universal Dimming Power Supply



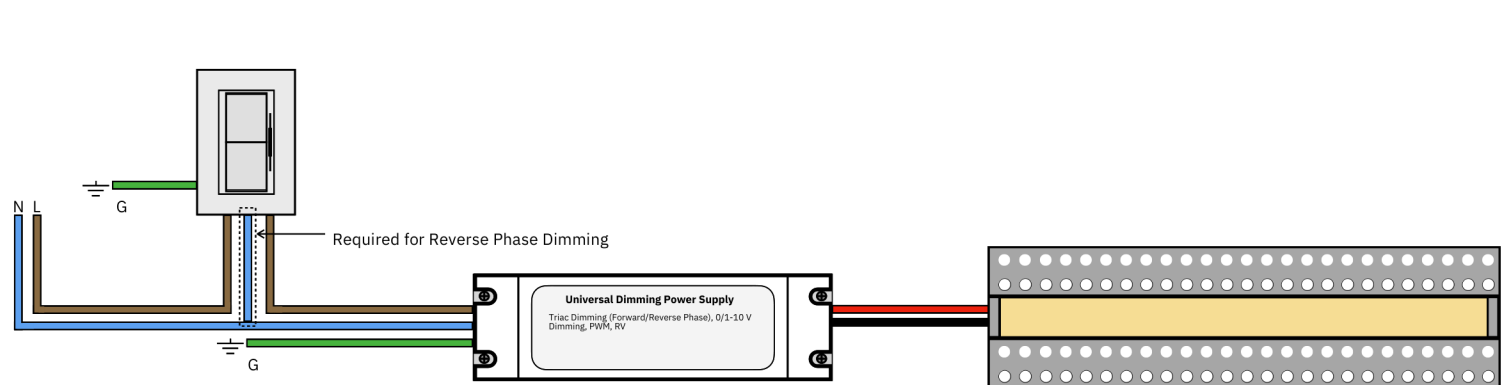
PART NAME: Power Supply Universal Dimming
 Input: 110-277 VAC, 50/60 Hz. Supports Triac, 0-10V, 1-10V, PWM & Potentiometer Dimming
SKU:
 UV24962 (96W 24V Model)
 UV1502467 (150W 24V Model)

WIRING DIAGRAMS

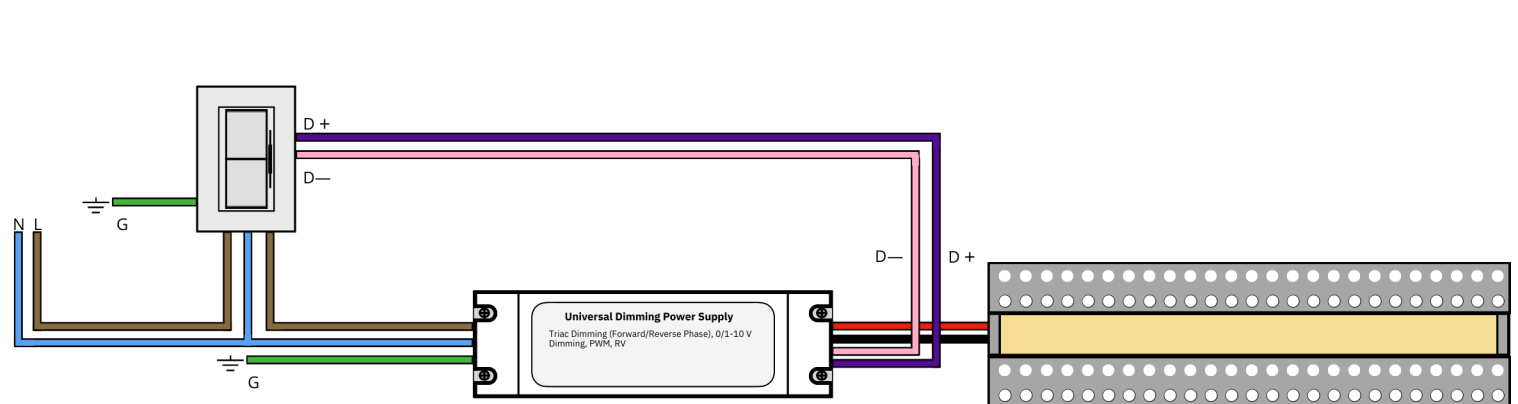
Standard Wall Switch Configuration



Triac (Reverse/Forward Phase) Dimming Configuration



Low Voltage (0-10 V) Dimming Configuration



WIRELESS CONTROLLERS

Radio Frequency (RF 2.4 GHz) + Zigbee 3.0 Receivers



SKU:CLS035Z+
PART NAME: Single/Dual LED Control



SKU:CLS037Z+
PART NAME: RGBW Zigbee/RF LED Control



SKU:CLS-PA5
PART NAME: 5-Channel Signal Amplifier 15A

Radio Frequency (RF 2.4 GHz) Remote



SKU:CLS087
PART NAME: Touch Dimming Remote Control



SKU:CLSS2W
PART NAME: Touch RGBW Remote Control



SKU:CLS089
PART NAME: 8-Zone Touch RGBW Remote Control

ZigBee Protocol



SKU:CLS-CL-GZ
PART NAME:Wired Zigbee Gateway (128 devices)



SKU:CLS-CL-GZWL
PART NAME:Wireless Zigbee Gateway (64 devices)

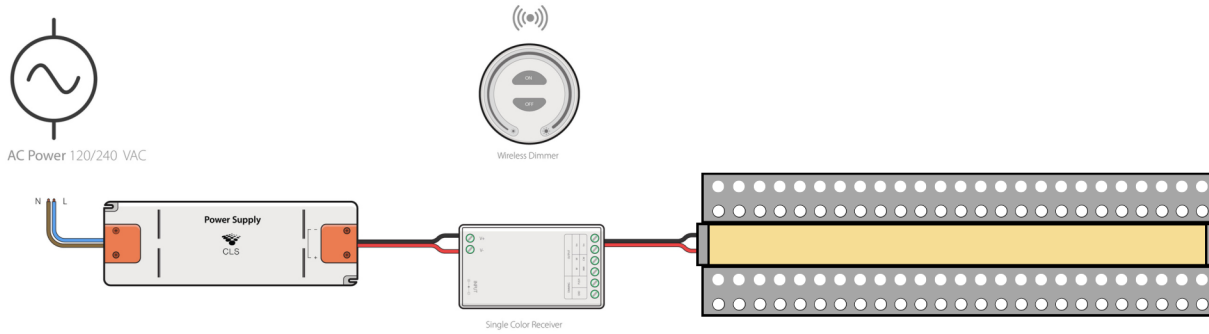
Manual 30A Dimmer



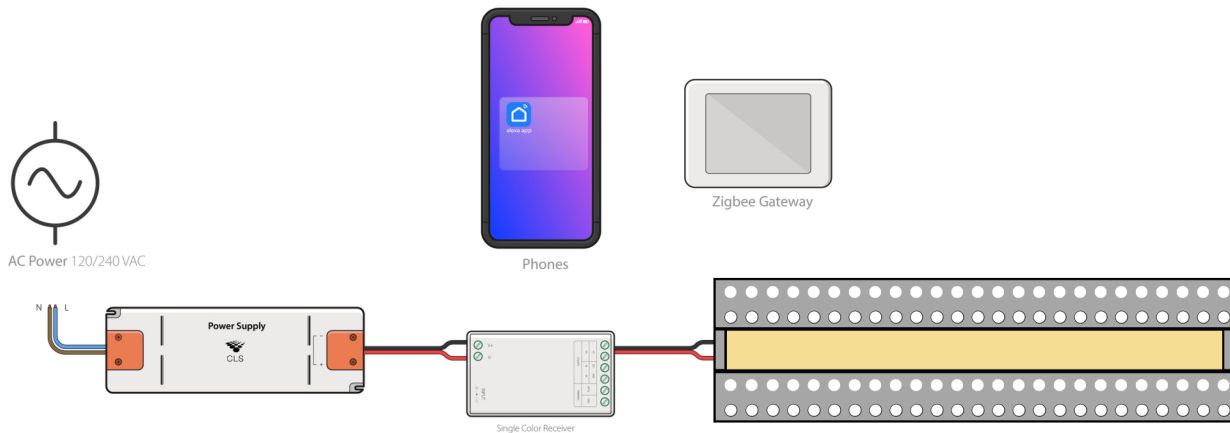
SKU:LC-DIM-30A
PART NAME: LED Rotary Dimmer

WIRING DIAGRAMS FOR SINGLE COLOUR

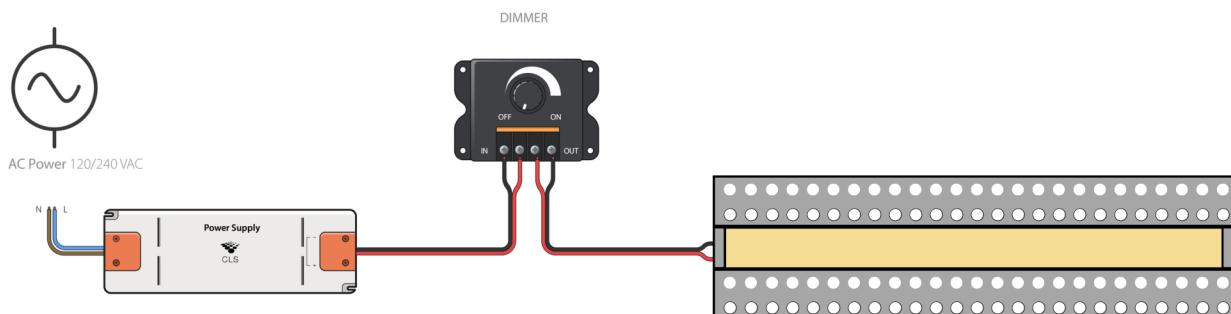
Wireless Wireless Remote Configuration



Wireless Zigbee Configuration

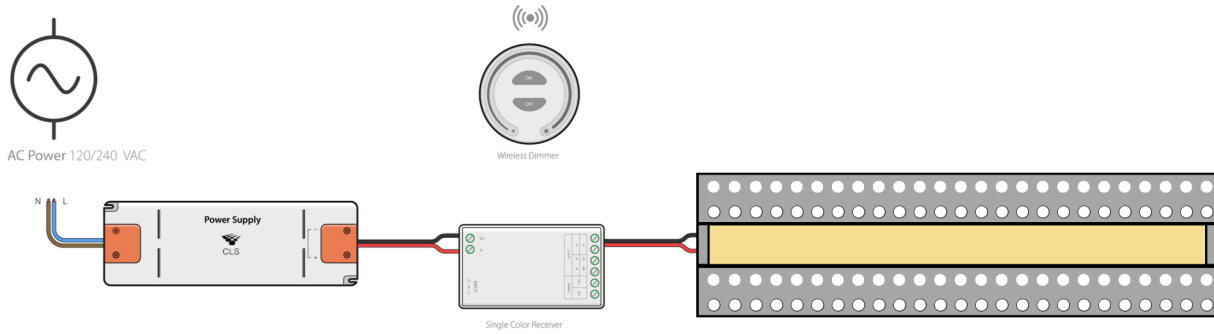


Manual Dimming Configuration

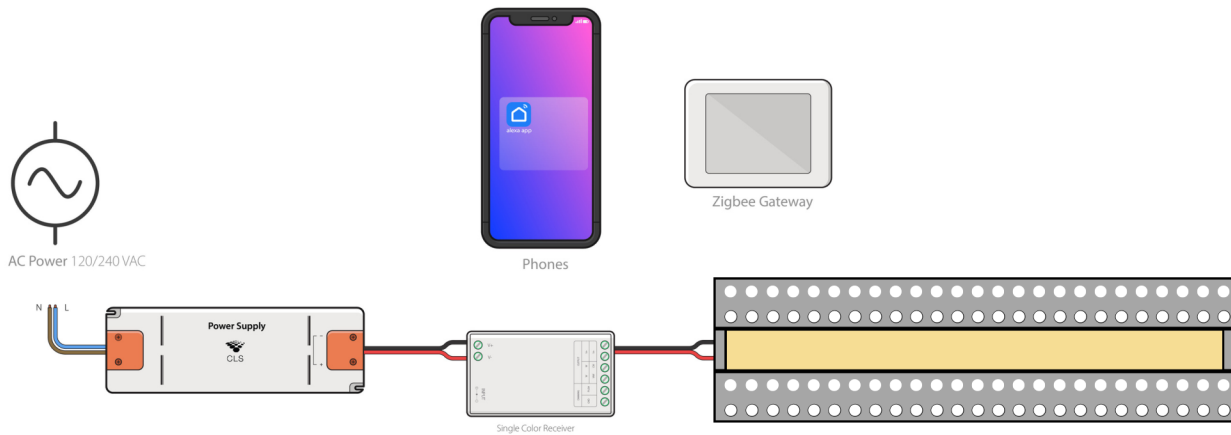


WIRING DIAGRAMS FOR SINGLE COLOUR

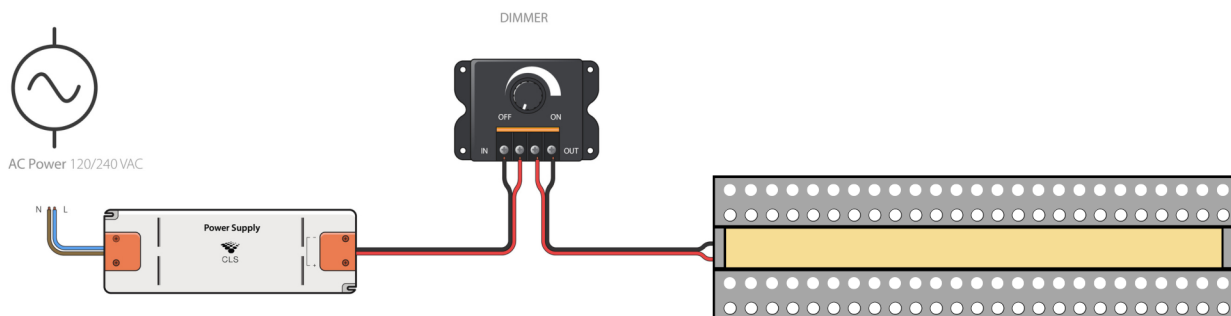
Wireless Wireless Remote Configuration



Wireless Zigbee Configuration

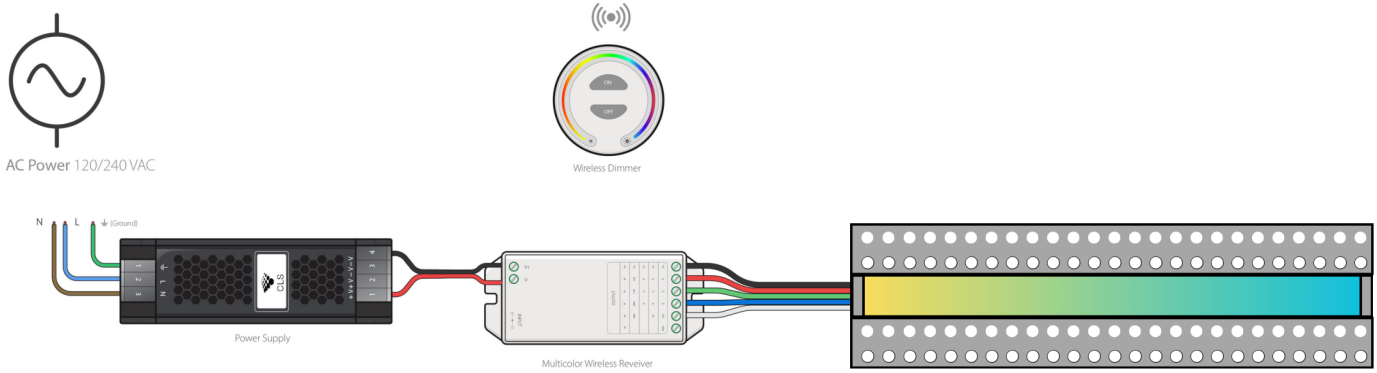


Manual Dimming Configuration

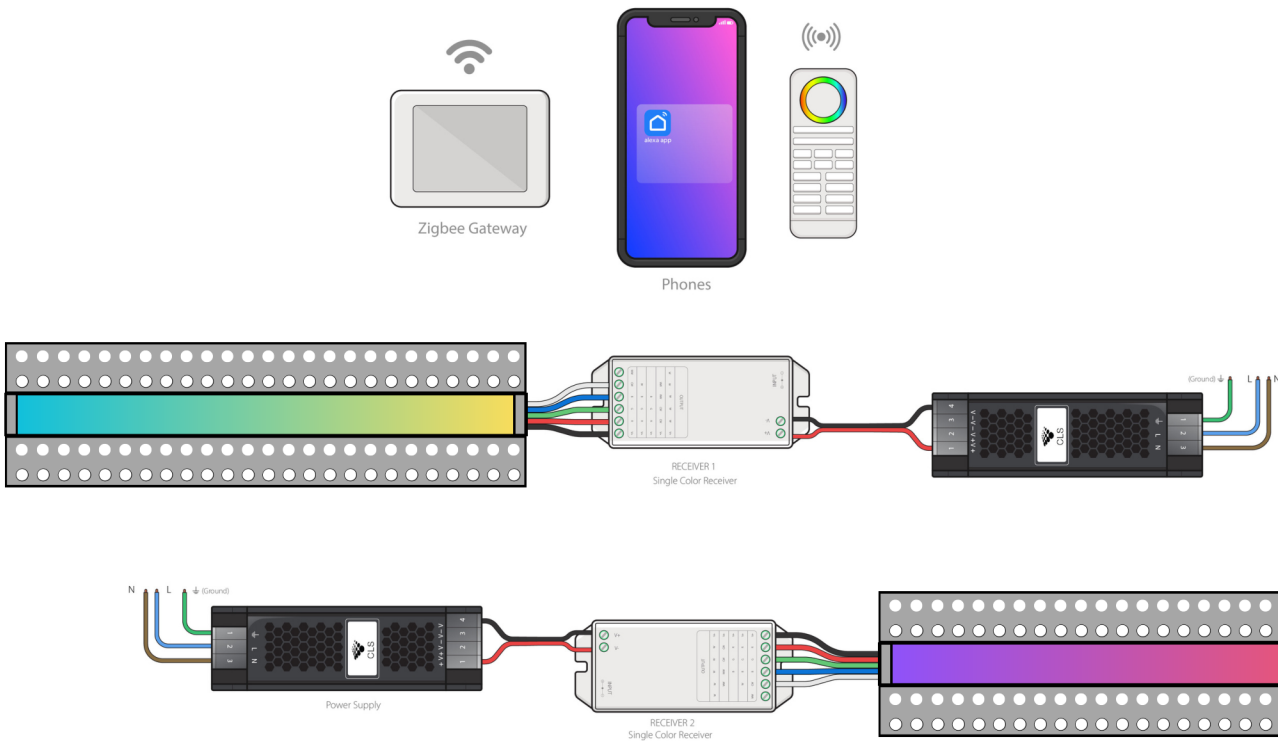


WIRING DIAGRAMS FOR RGBW

Wireless Wireless Remote Configuration

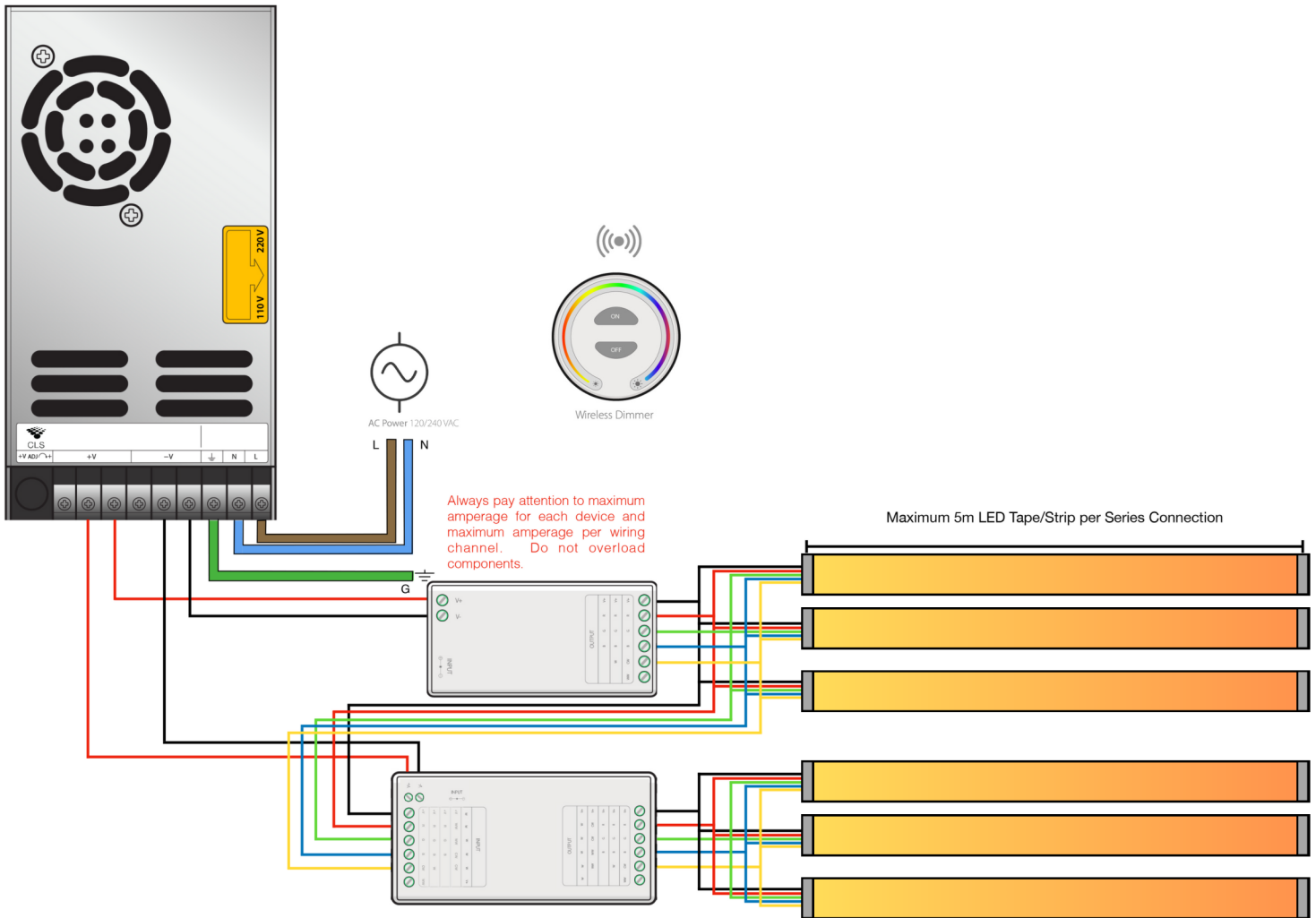


Wireless Multi-Zone Remote Configuration with Zigbee



WIRING DIAGRAMS

Signal Amplifier Configuration with Wireless Remote





Safety & Disclosures

1. Installation must be in accordance with local and national electrical code regulations.
2. To ensure safety and correct installation, our strips are intended to be installed by a qualified, licensed electrician.
3. Only install with a Class 2 DC Constant Voltage LED driver to meet UL requirements. 4. Do not install in an environment where excessive heat may exist.
5. LED strip lights must be handled with care. Excessive handling, bending, and pressure may damage the product, voiding the warranty.
6. Do not secure this product with any kind of staples, nails, or materials that could potentially damage the product in any way. Keep these instructions for future reference.
7. Do not cover this product with any kind of combustible material such as paper, fabrics, etc.
8. Each maximum run requires a dedicated power feed from the driver. Do not extend beyond the recommended maximum run length.
9. Make sure the appropriate gauge wire is installed between the driver, LEDs, and any dimmers. When choosing wire, calculate voltage drop, maximum amperage rating, and the location ratings on the wire. Improper wire selection and installation could overheat wires, and cause fire.
10. Do not modify the product beyond instructions or warranty will be void.
11. We reserve the right to modify and improve the design of our fixtures without prior notice. Although we try our best to order the same colors every time, due to changes in technology and phosphors over time, we cannot guarantee to match existing installed fixtures for subsequent orders or replacements in regards to product appearance, CCT, or lumen output.
12. Do not install product with the majority of the product unsupported. Allowing the product to be suspended or dangling while installing may cause damage to the PCB due to the weight of the strip and/or spool.

Warranty

Caribbean LED Solutions hereby warrants that the products manufactured and/or distributed by us are merchantable and free from defects in material and workmanship and in conformity with standard specifications. The specifications referred to are the individual product guidelines. Materials and components are covered by limited warranty from the date of purchase for a period of three (3) year unless specified in our invoice description.

Our warranty shall not apply to normal wear and tear or in the event products are damaged as a result of misuse, abuse, neglect, accident, improper application, modification or repair and attachments to the product not approved by us. These factors will nullify the warranty:

- Not using a line conditioner or surge protector to connect dimmable LEDs.
- Caribbean LED Solutions will need to confirm this is connection before a warranty is issued.
- Not using voltage regulated supply to connect LEDs product or controls where specified.
- Connecting dimmers to non-dimmable LEDs
- Overloading a power supply.
- Operating LEDs out of specified working hours (Example: Using a residential grade LED in a commercial setting)
- Improper connection of power supplies, LED products or controls.
- Use of product in hot environments with poor ventilation.
- Use of product in enclosed fixtures with poor ventilation.
- Use of Non-wet location LEDs in wet/moist areas.
- Electrical surges or low-voltage.
- Faulty electrical installations.
- Acts of God.

Caribbean LED Solutions Limited shall have the right to inspect any products claimed as a defective product at the buyer's premises, or require the buyer to return the product to us for inspection at our premises.

Our exclusive remedy for a defective product that fails under normal use will be repaired or replaced with a comparable product at no cost for the replacement product.



☎ 868 235 4257 (4LED)

🌐 www.caribbeanledsolutions.com

✉ hello@caribbeanledsolutions.com