

Universal RF Controller

Low Voltage Control System

for 1 to 5 Channel LED Sources

Specification Sheet

Project Name	Type
Catalog #	Date

PRODUCT OVERVIEW

GM's universal RF Control System is an especially versatile solution for most lighting needs. Control settings include use of 1,2,3,4 or 5 channel LED light sources. This includes single channel and color tuning for typical white LEDs. RGB variations include color only, one additional white channel or additions of color CCT tuning. Simply match the power supply output to the LED voltage and power needs. The system works with 12V or 24V LED sources and power supplies. Various pairing combinations make multiple systems easy to set up and operate. Practical features make this GM control a great alternative to avoid complex wifi controls that need internet access.



FEATURES

- RF remote with 6 zones: 4 presets per zone
- Use of several controls on one zone (lighting group)
- Use of one control to operate different zones (lighting groups)
- Flicker free operation (PAR1789)

Control Features:

- 16 million RGB color combinations
- Dimming for all channel options
- RGB color/saturation with 3, 4 or 5 channel operation
- Color tuning with 2 or 5 channel operation
- Presets for automated light patterns

SPECIFICATIONS

ELECTRICAL/RF

- 12VDC or 24VDC
- 6A/channel, 15A (max)
- 1 to 5 channel outputs
- 2.4GHz communication
- 30m(98ft) RF range
- 10Mbps switching rate

OPERATING TEMP

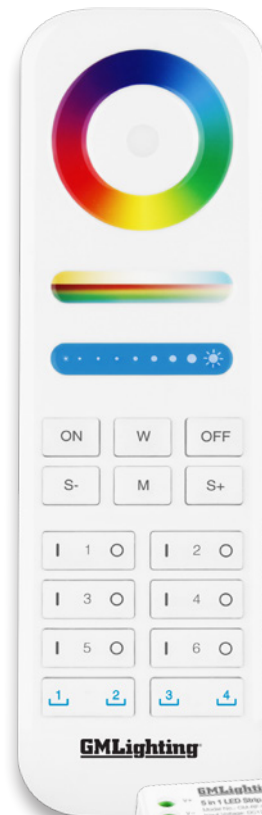
- **CM-RF-UNV-5CH:**
14°F to 104°F (-10°C to 40°C)
- **RPT-UNV-5CH:**
-4°F to 140°F (-20 to 60°C)

CERTIFICATION

- FCC
- CE
- For use in dry and damp locations

WARRANTY

- 5 years when paired with GM power supply



No WiFi Needed!

HC-RF-UNV-5CH



CM-RF-UNV-5CH

RPT-UNV-5CH

ORDERING INFORMATION

Product No.	Description
HC-RF-UNV-5CH	Universal 1-5 Channel RF Remote Control*
CM-RF-UNV-5CH	Universal 1-5 Channel Control Module
RPT-UNV-5CH	Universal 1-5 Channel Repeater Amplifier

NOTE: System Components are all ordered separately.

* Requires 2x 1.5V AAA batteries (not included).

Universal RF Controller

Low Voltage Control System for 1 to 5 Channel LED Sources Specification Sheet



LD-E-UNV30



LD-XD-UNV60-12



LD-XD-UNV200-24

RECOMMENDED DRIVERS

Product No.	Description	Watts	Weight	Dimensions
LD-E-UNV30	12VDC / 24VDC — 30W — 120V or 277V — 50/60Hz 12V/2.5A — 24V/1.25A — Class 2 — Auto reset	30W	1.0 lbs	6.10"L x 3.35"W x 1.33"H
LD-E-UNV60	12VDC / 24VDC — 60W — 120V or 277V — 50/60Hz 12V/5A — 24V/2.5A — Class 2 — Auto reset	60W	2.5 lbs	8.25"L x 4.10"W x 1.56"H
LD-E-UNV96-24	24VDC — 96W — 120V or 277V — 50/60Hz — 4 amps Class 2 — Auto reset	96W	2.5 lbs	8.25"L x 4.10"W x 1.56"H
LD-E-UNV200-24	24VDC — 192W — 120V or 277V — 50/60Hz — 4 amps/channel (2) Class 2 — Auto reset — 2 x 96W channel	192W (96Wx2)	4.7 lbs	9.50"L x 6.35"W x 1.56"H
LD-E-UNV300-24	24VDC — 288W — 120V or 277V — 50/60Hz — 4 amps/channel (3) Class 2 — Auto reset — 3 x 96W channel	288W (96Wx3)	4.7 lbs	9.50"L x 6.35"W x 1.56"H
LD-XD-UNV20-12	12VDC — 20W — 120V or 277V — 50/60Hz — 1.67 amps Class 2 — Auto reset	20W	1.87 lbs	7.93"L x 3.36"W x 1.33"H
LD-XD-UNV40-12	12VDC — 40W — 120V or 277V — 50/60Hz — 3.33 amps Class 2 — Auto reset	40W	1.87 lbs	7.93"L x 3.36"W x 1.33"H
LD-XD-UNV60-12	12VDC — 60W — 120V or 277V — 50/60Hz — 5 amps Class 2 — Auto reset	60W	2.2 lbs	8.29"L x 4.10"W x 1.59"H
LD-XD-UNV180-12	12VDC — 180W — 120V or 277V — 50/60Hz — 5 amps/channel (3) Class 2 — Auto reset — 3 x 60W channel	180W (60Wx3)	4.4 lbs	9.51"L x 6.35"W x 1.59"H
LD-XD-UNV20-24	24VDC — 20W — 120V or 277V — 50/60Hz — 0.83 amps Class 2 — Auto reset	20W	1.87 lbs	7.93"L x 3.36"W x 1.33"H
LD-XD-UNV40-24	24VDC — 40W — 120V or 277V — 50/60Hz — 1.67 amps Class 2 — Auto reset	40W	4.4 lbs	7.93"L x 3.36"W x 1.33"H
LD-XD-UNV60-24	24VDC — 60W — 120V or 277V — 50/60Hz — 2.5 amps Class 2 — Auto reset	60W	2.2 lbs	8.29"L x 4.10"W x 1.59"H
LD-XD-UNV96-24	24VDC — 96W — 120V or 277V — 50/60Hz — 4 amps Class 2 — Auto reset	96W	2.2 lbs	8.29"L x 4.10"W x 1.59"H
LD-XD-UNV200-24	24VDC — 200W — 120V or 277V — 50/60Hz — 4 amps/channel (2) Class 2 — Auto reset — 2 x 96W channel	192W (96Wx2)	4.4 lbs	9.51"L x 6.35"W x 1.59"H
LD-XD-UNV300-24	24VDC — 300W — 120V or 277V — 50/60Hz — 4 amps/channel (3) Class 2 — Auto reset — 3 x 96W channel	288W (96Wx3)	4.4 lbs	9.51"L x 6.35"W x 1.59"H

Please see our website for updated power supply specifications and information.

NOTE: Must not dim LD-XD power supplies when used to power a low voltage dimmer control.

CORD AND PLUG DRIVERS

Model	Description	Watts	Weight	Dimensions
LTP24-48	24VDC - 48W - 2 amps - 120V - 120V cord (72") and plug Short circuit, overload protection - LED indicator for power on. UL listed	48W	1.8 lbs	4.68"L x 2.05"W x 1.25"H
LTP24-90	24VDC - 90W - 3.75 amps - 120V - 120V cord (72") and plug Short circuit, overload protection - LED indicator for power on. UL listed	90W	1.8 lbs	4.68"L x 2.05"W x 1.25"H
LTP-2	12VDC - 24W - 2 amps - 120V - 120V cord (72") and plug Short circuit, overload protection - LED indicator for power on. UL listed	24W	10.4 oz	3.75"L x 1.25"W x 1.25"H
LTP-6	12VDC - 60W - 5 amps - 120V - 120V cord (72") and plug Short circuit, overload protection - LED indicator for power on. UL listed	60W	14.8 oz	4.5"L x 2"W x 1.25"H

Please see our website for updated power supply specifications and information.

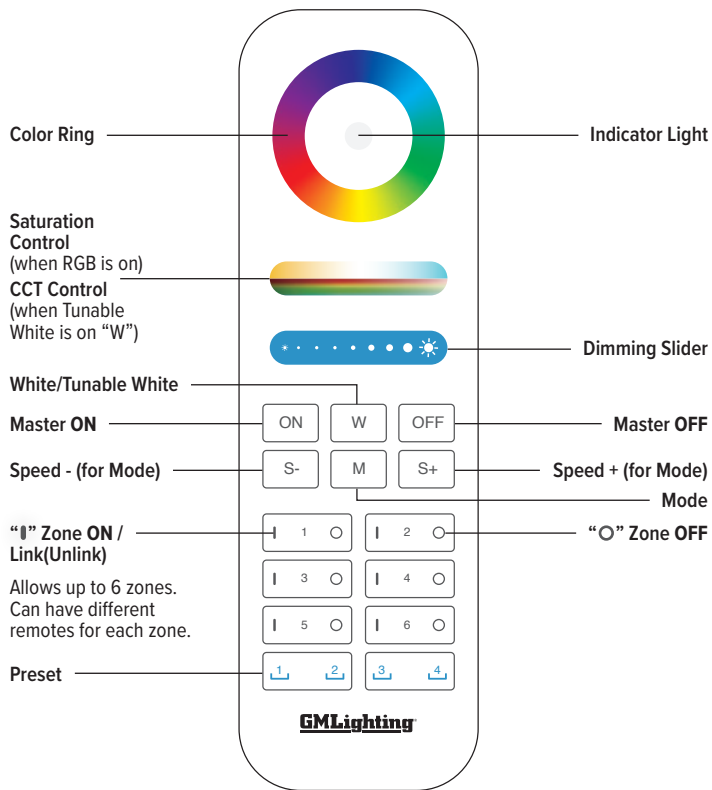
Universal RF Controller

Low Voltage Control System for 1 to 5 Channel LED Sources Specification Sheet



RF REMOTE

RF Remote Control
HC-RF-UNV-5CH
with Built-In Effects



PRESET DYNAMIC MODES: Adjustable Brightness / Saturation / Speed)

Mode Setting	Output for White, Yellow Setting on Control Module	Output for Red, Green, Blue Setting on Control Module			LED Color Legend
		Speed	Change	LED Colors	
1	N/A	Fast	Jump	C / Y / P / Random	B = Blue C = Cyan G = Green LG = Light Green O = Orange P = Pink R = Red W = RGB White Y = Yellow
2	N/A	Medium	Fade	R / O / G / C / B / P	
3	N/A	Very Slow	Fade	G / C / B / P	
4	N/A	Slow	Fade	G / C / B / P	
5	N/A	Medium	Fade	R / G / C / B / P	
6	N/A	Slow	Fade	R / W / B	
7	N/A	Slow	Jump	P / B / W	
8	N/A	Medium	Fade	R / W / G / W / G / B	
9	N/A	Very Slow	Fade	R / P / C / B / LG / Y / P	

Universal RF Controller

Low Voltage Control System for 1 to 5 Channel LED Sources Specification Sheet



Controller
CM-RF-UNV-5CH

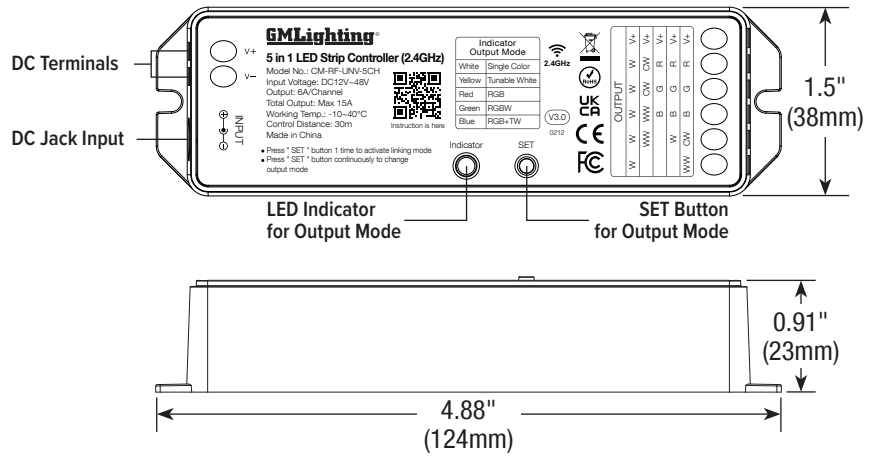
CONTROL MODULE

Class 2 Operation:

- 60W maximum on 12V power supplies for each control module
- 96W maximum on 24V power supplies for each control module



**See the
Installation
Instructions!**



OPERATIONAL SETTINGS

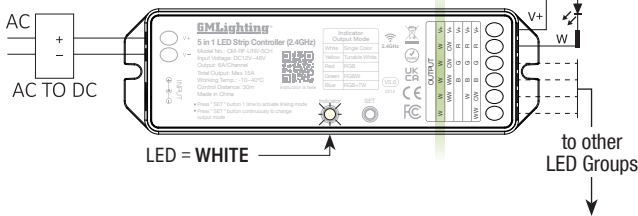
LED Indicator	Control Module Output Mode	OUTPUT					
		Terminal 1	Terminal 2	Terminal 3	Terminal 4	Terminal 5	Terminal 6
White	Single Color	White	White	White	White	White	V+
Yellow	Tunable White	—	Warm White	Warm White	Cool White	Cool White	V+
Red	RGB	—	—	Blue	Green	Red	V+
Green	RGBW	—	White	Blue	Green	Red	V+
Blue	RGB+TW	Warm White	Cool White	Blue	Green	Red	V+

LED Channel Codes:

- R** = Red
- G** = Green
- B** = Blue
- CW** = Cool White (used with TW)
- WW** = Warm White (used with TW)
- W** = White (single color)

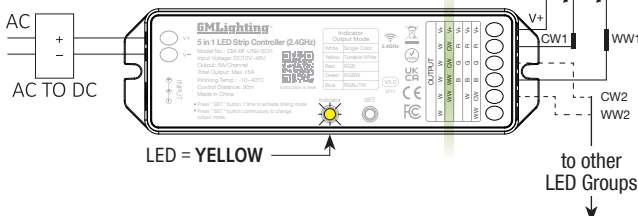
Single Color Mode Setting

Use 12V or 24V dc to match LED voltage



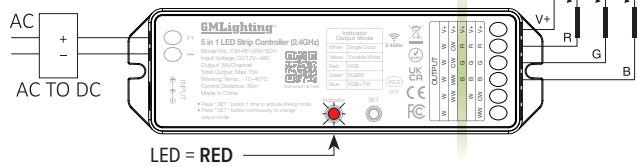
Tunable White Mode Setting

Use 12V or 24V dc to match LED voltage



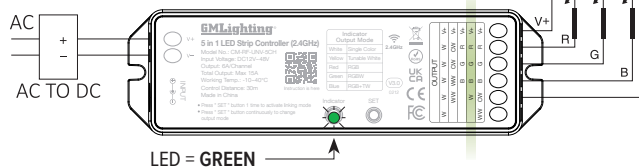
RGB Mode Setting

Use 12V or 24V dc to match LED voltage



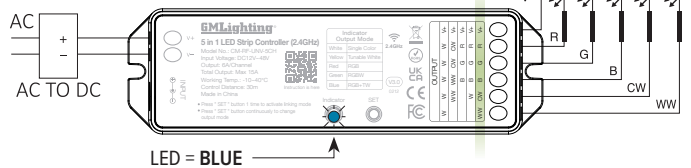
RGBW Mode Setting

Use 12V or 24V dc to match LED voltage



RGBTW Mode Setting

Use 12V or 24V dc to match LED voltage



Universal RF Controller

Low Voltage Control System for 1 to 5 Channel LED Sources Specification Sheet

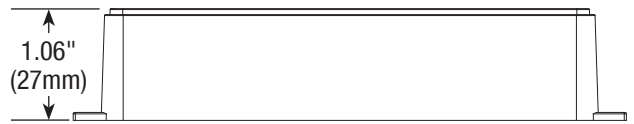
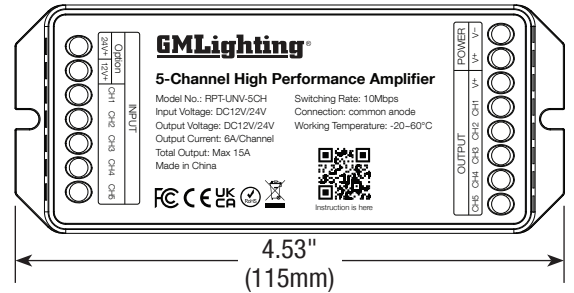
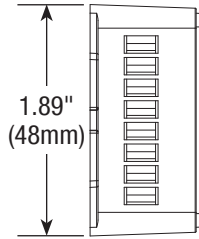


Repeater Amplifier RPT-UNV-5CH

REPEATER AMPLIFIER

Class 2 Operation:

- 60W maximum on 12V power supplies for each control module
- 96W maximum on 24V power supplies for each control module



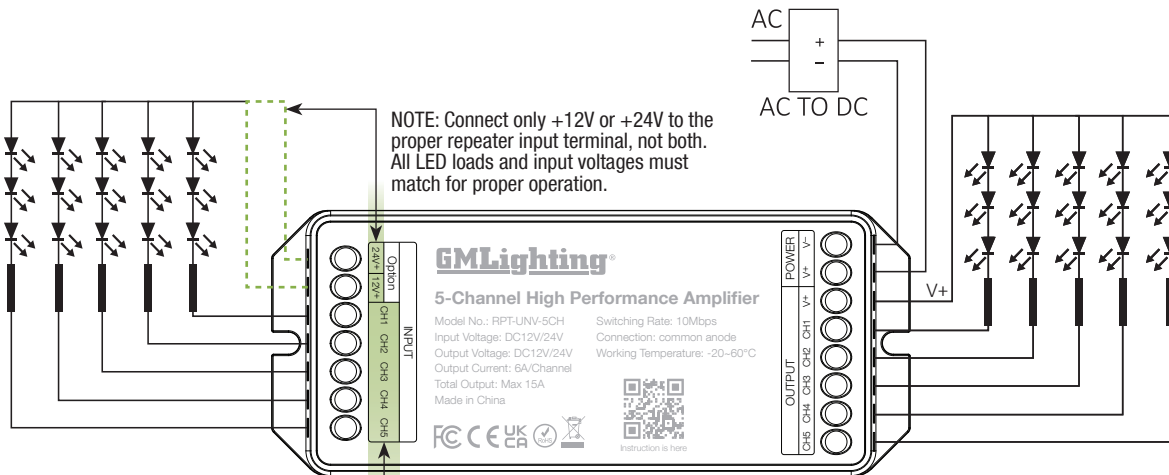
**See the
Installation
Instructions!**

OPERATIONAL SETTINGS

LED Indicator	Repeater Module Output Mode	OUTPUT					
		Terminal 1	Terminal 2	Terminal 3	Terminal 4	Terminal 5	Terminal 6
White	Single Color	White	White	White	White	White	V+
Yellow	Tunable White	—	Warm White	Warm White	Cool White	Cool White	V+
Red	RGB	—	—	Blue	Green	Red	V+
Green	RGBW	—	White	Blue	Green	Red	V+
Blue	RGB+TW	Warm White	Cool White	Blue	Green	Red	V+

Using the wiring scheme in this chart for specific LED colors will make it easier to install and troubleshoot if required. This scheme aligns with the wiring required by the **CM-RF-UNV-5CH** controller.

Use 12V or 24V dc to match LED voltage



Use the wiring method in the chart to match the wiring from the control module.
Use 1 to 5 channels as needed for the application. Match up input and output terminal number. Leave unneeded terminals disconnected. Not all 5 channels required.

Example: A single color LED load can be used as the White channel and connected to Terminal 1 and Terminal 6 (common).

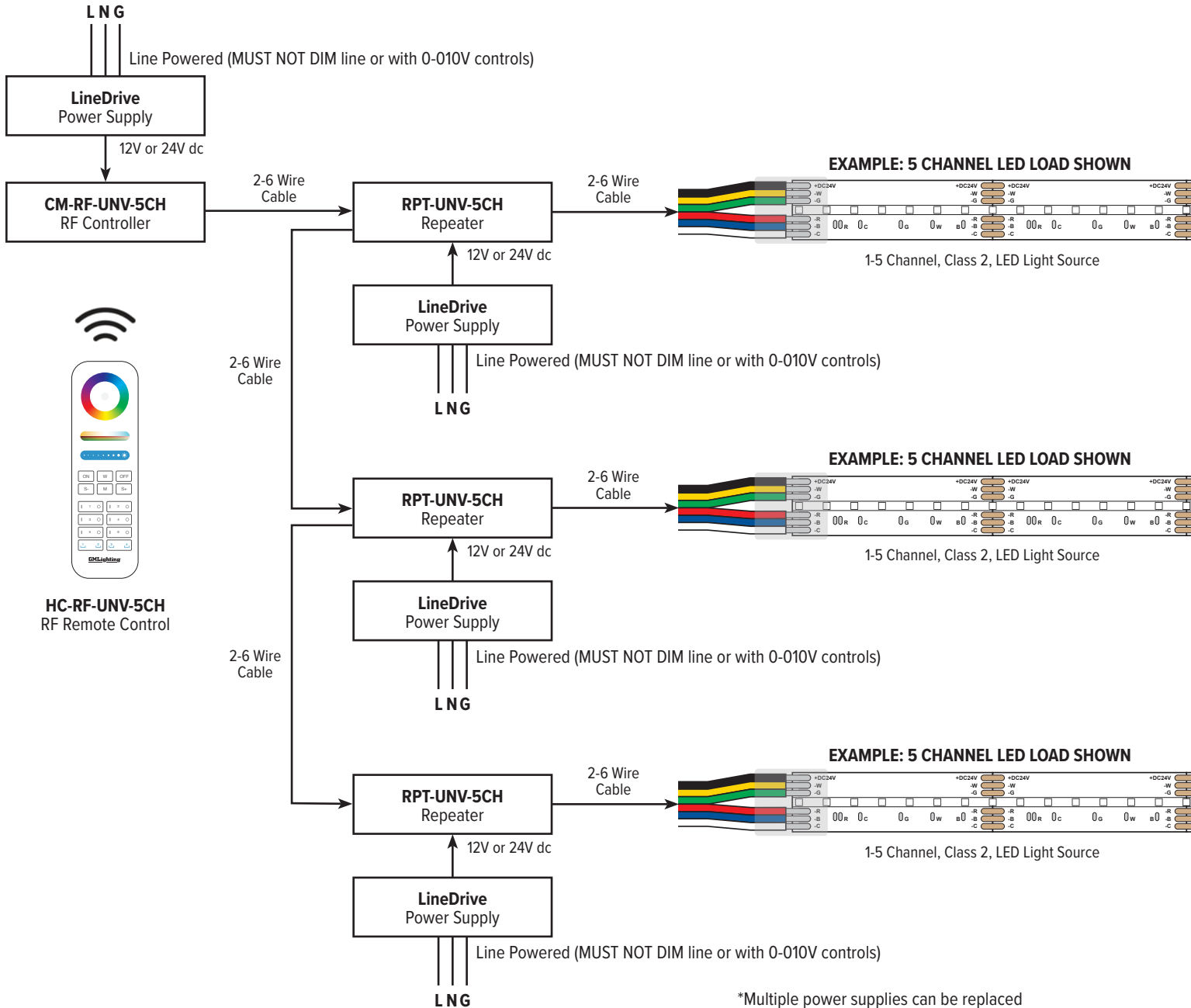
Universal RF Controller

Low Voltage Control System for 1 to 5 Channel LED Sources Specification Sheet



UNIVERSAL RF CONTROLLER WIRING DIAGRAM

Incoming power for (L N G) options can be 120V or 277V.
Check power supply for proper input voltage and output power required.
Power Supply output voltage must match LED operating voltage. (12VDC or 24VDC)
Power supply used **MUST NOT BE DIMMED** at the input to properly power the controls.
See Controller instructions for pairing and wiring details.



*Multiple power supplies can be replaced with a single multi-output power supply.

Example: (3) **LD-E-UNV96-24** can be replaced by (1) **LD-E-UNV300-24**