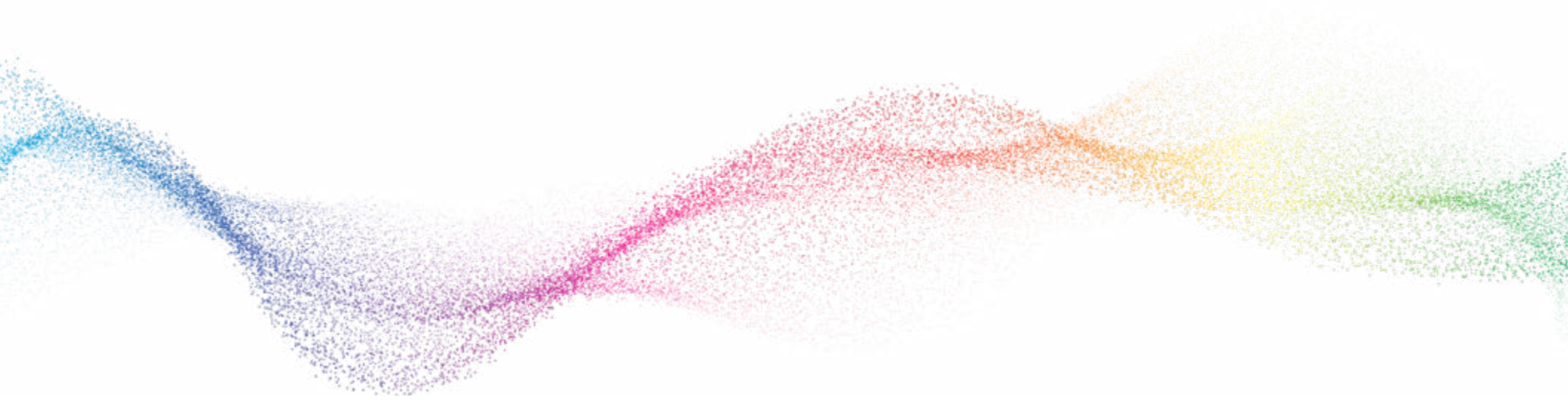


Comprehensive RGB Guide



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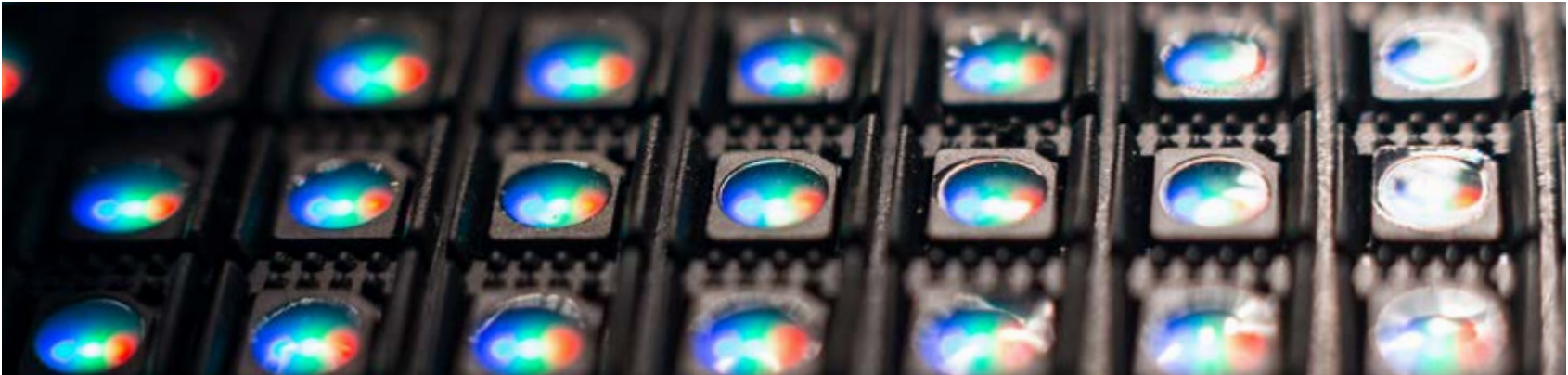
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RGB Overview

Remember when LED lighting took the world by storm? We said “So long!” to overheating, power-consuming incandescent bulbs to make way for economical and energy-efficient LED — light emitting diode — bulbs. Now, our LEDs can do even more.

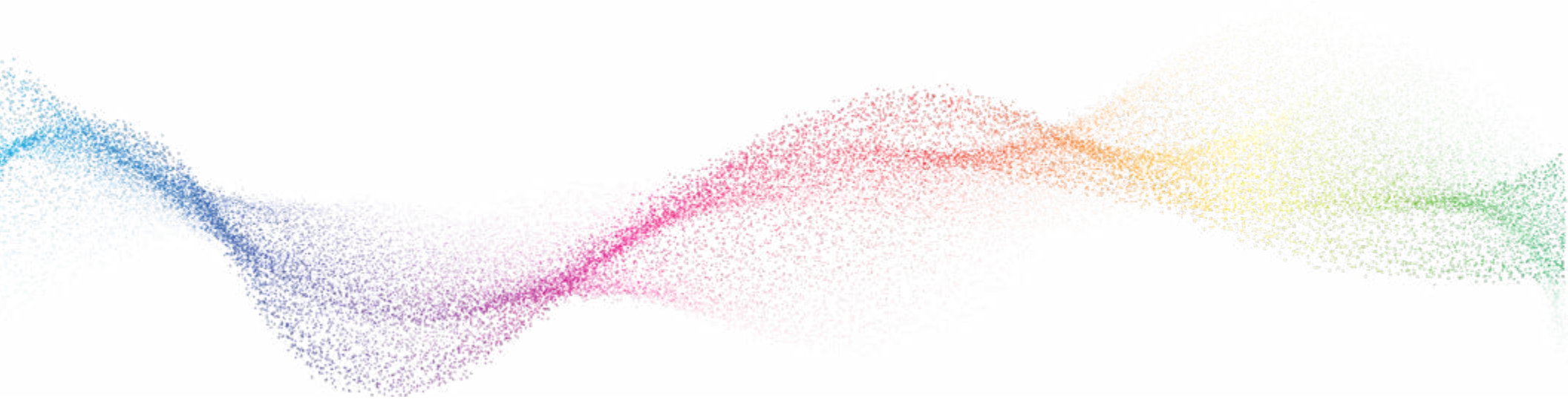
RGB stands for red, green, blue. RGB LEDs have three light emitting diodes: one red, one green, one blue. With just these three colors, our RGB LEDs can create any hue your heart desires! Plus we can coordinate these lights with music to create animated light shows you won't want to miss.



Our Comprehensive RGB Guide will introduce you to Dekra-Lite's RGB product line and help you familiarize yourself with the ins and outs of RGB. Because of these lights' technical nature, we prefer handling their programming and installation. This guide is here to pull back the curtain on RGB so you understand how your products work — even if you don't have to.

Some of our products are simple and some are complex, but our expert team is here to program your shows, show you the ropes, and provide support every step of the way!

RGB Product Line



G28 Light Strand



Create a dazzling holiday program with our RGB G28 Show Lites! These long-lasting polycarbonate plastic bulbs are weather-resistant and ideal for both indoor and outdoor holiday installs. With a 360° viewing angle, these lights are great for skyline displays, lining walkways, and creating extravagant rainbow tunnels!

We pre-program these light strands so you can sit back, relax, and enjoy your RGB light show!

Product SKU

LBRGBP-G2825

Specifications

LED Quantity	2 per bulb
Viewing Angle	360°
Diameter.....	28mm
Weight	~0.04 lb
Voltage	12V
Current.....	0.028 Amps
Power.....	0.336 Watts
Max Lights Before Power Injector	125
Max Distance Before Power Injector.....	100 ft
Inline Power Injection.....	via Power T
Wire	22 AWG, 3C, UV Protected, Black
Operating Temperature	-4°F to 122°F / -20°C to 50°C
Certifications	(c)UL Listed, IP65

Additional Products Needed



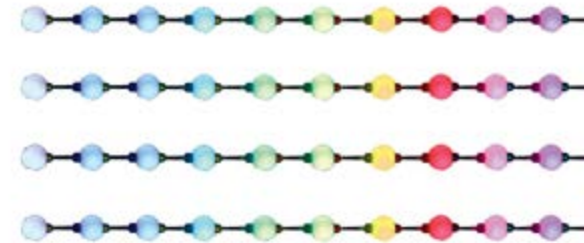
12V Transformer – pg 20



Power T* – pg 13



WEC – pg 19



*Only required if connecting four or more light strands.

G40 Light Strand



These light strands measure 25' and come fitted with 25 globe-shaped G40 bulbs with 12" spacing. Our long-lasting polycarbonate plastic bulbs are weather-resistant and offer a high-end look for any environment. If you're looking for the flexibility of changing colors or adding motion to your display, these lights are ready to complete your holiday show!

We pre-program these light strands so you can sit back, relax, and enjoy your RGB light show!

Product SKU

LBRGBP-G40OF25L12

Specifications

LED Quantity	1 per bulb
Viewing Angle	180°
Base Dimensions	1.5"L x 0.75"W
Weight	~1 oz. per bulb
Voltage	12V
Current	0.028 Amps
Power	0.336 Watts
Max Lights Before Power Injector	125
Max Distance Before Power Injector	100 ft
Inline Power Injection	via Power T Wire
Wire	20 AWG, 3C, UV Protected, Black
Operating Temperature	-4°F to 122°F / -20°C to 50°C
Certifications	(c)UL Listed, IP65, CE

Additional Products Needed



12V Transformer – pg 20



Power T* – pg 13



WEC – pg 19



*Only required if connecting four or more light strands.
RGB Product Line - G40 Light Strand 4

C7 Light Strand



Our C7 light strands add modern flair to the classic Christmas light strand. These long-lasting polycarbonate plastic bulbs are weather-resistant and offer a high-end look for any environment.

We pre-program these light strands so you can sit back, relax, and enjoy your RGB light show!

Product SKU

LBRGBP-C7OF25L12

Specifications

LED Quantity	1 per bulb
Viewing Angle	180°
Base Dimensions	1.5"L x 0.75"W
Weight	~1 oz. per bulb
Voltage	12V
Current	0.028 Amps
Power	0.336 Watts
Max Lights Before Power Injector	125
Max Distance Before Power Injector	100 ft
Inline Power Injection	via Power T
Wire	20 AWG, 3C, UV Protected, Black
Operating Temperature	-4°F to 122°F / -20°C to 50°C
Certifications	(c)UL Listed, IP65, CE

Additional Products Needed



12V Transformer – pg 20



Power T* – pg 13



WEC – pg 19



*Only required if connecting four or more light strands.
RGB Product Line - C7 Light Strand **5**

Pebble Light Strand



These Pebble Lights are the brightest of our entire RGB collection! They're perfect for perimeter lighting, RGB wall designs, and creating one-of-a-kind light curtains.

We pre-program these light strands so you can sit back, relax, and enjoy your RGB light show!

Product SKU

LBRGBP-PEB25LC24V-12B

Specifications

LED Quantity	2 per pixel
Viewing Angle	360°
Dimensions	2.0"L x 0.875"W x 0.5"H
Weight	~0.256 oz. per bulb
Voltage	24V
Current	0.015 Amps
Power	0.36 Watts
Max Lights Before Power Injector	200
Max Distance Before Power Injector	180 ft
Inline Power Injection	via Power T
Wire	20 AWG, 3C, UV Protected, Black
Operating Temperature	-4°F to 122°F / -20°C to 50°C
Certifications	(c)UL Listed, IP65, CE

Additional Products Needed



12V Transformer – pg 20



Power T* – pg 13



WEC – pg 19



*Only required if connecting four or more light strands.

Light Spheres



Incorporate your color scheme all around your property with lively Light Spheres! These animated RGB Light Spheres are perfect for one-of-a-kind holiday displays, visual merchandising, and year-round luminance.

We pre-program these Light Spheres so you can sit back, relax, and enjoy your RGB light show!

Product SKUs

Set of 3 LBRGBP-SPHEREMIX3

Set of 5 LBRGBP-SPHEREMIX5

Set of 7 LBRGBP-SPHEREMIX7

Specifications

Voltage.....	24V
Power	
12".....	2.5 Watts
14".....	2.9 Watts
16".....	3.6 Watts
Max Spheres on 24V Power (using 6' Spacer Cables)	
12".....	20
14".....	18
16".....	15
Operating Temperature.....	5°F to 122°F / -15°C to 50°C
Certifications.....	IP65

Additional Products Included in Sphere Sets



Spacer Cable – pg 14



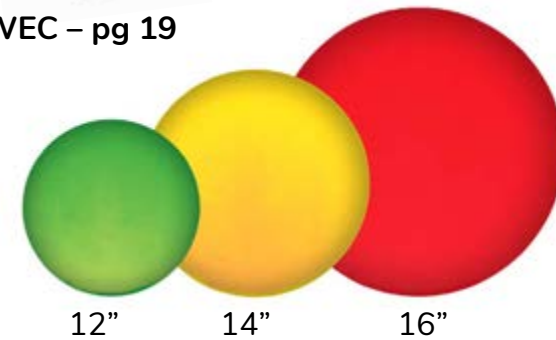
WEC – pg 19



24V Transformer – pg 20



Metal Stakes & Stands
for Ground Displays



12" 14" 16"
RGB Product Line - Light Spheres **7**

Light Tubes



Add pizzazz to your windows, trees, and entryways with our dynamic RGB Light Tubes! These tubes come in three sizes and are sold in sets of five and seven.

We pre-program these Light Tubes so you can sit back, relax, and enjoy your RGB light show!

Product SKUs

Set of 5 LBRGB-TUBEMIX5

Set of 7 LBRGBP-TUBEMIX7

Additional Products Included in Tube Sets

Specifications

LED Quantity	12 per foot
Viewing Angle	360°
Diameter.....	~30 mm
Weight	~2 oz. per foot
Voltage	12V
Current.....	0.336 Amps per foot
Power.....	4.032 Watts per foot
Max Lights Before Power Injector	125
Max Distance Before Power Injector.....	100 ft
Inline Power Injection.....	via Power T
Wire.....	20 AWG, 3C, UV Protected, Black
Operating Temperature	-4°F to 122°F / -20°C to 50°C
Certifications	IP65



12V Transformer – pg 20



WEC – pg 19



Basic T – pg 13



Spacer Cable – pg 14



Power T* – pg 13



12" 24" 36"

*Only required if connecting 125 or more light tubes.

RGB Product Line - Light Tubes **8**

Snowflakes



Who said holiday displays have to be red and green? Not us! We love adding extra color to Christmas programs with these RGB Snowflakes.

These plug-and-play snowflakes are easily controlled with our RGB Controller.

Product SKUs

- 16" SFEMSNFLK40RGB
- 20" SFEMSNFLK50RGB
- 24" SFEMSNFLK60RGB

Specifications

LED Quantity	
16".....	120
20".....	153
24".....	186
Voltage	12V
Power	
16".....	24 Watts
20".....	30 Watts
24".....	36 Watts
Certifications	IP65

Additional Products Included with Snowflakes



60" Lead Cord



RGB Controller



16"



20"



24"

RGBW Wall Washer



The RGBW LED Wall Washer coats your building facades with a gorgeous multi-color display of lights! This color-morphing wall washer has RGB and white lights, and can operate independently, in tandem with other wall washers, or by use of a DMX Controller.

Each unit has a dust-free, watertight control panel for independent operations. Units will return to the most recently chosen setting after shut-down and upon subsequent start-up.

Product SKU

ACWALLWASH16RGBW

Specifications

LED Quantity	64
Projection Distance.....	60'
Dimensions	8.5"L x 6"W x 13.5"H
Weight	11 lb
Voltage	120V
Power.....	55 Watts
Wire	15' Power Cord Installed, Black
Operating Temperature.....	-31°F to 113°F / -35°C to 45°C
Certifications	IP65
Rated Life	50,000 Hours

No Additional Products Needed



Tri-Color RGB Wall Washer



Paint your property with our Tri-Color RGB LED Wall Washer! This color-morphing wall washer can operate independently, in tandem with other wall washers, or by use of a DMX Controller. Equipped with 72 lights, this washer can project up to 130' for a larger-than-life light show.

Each unit has a dust-free, watertight control panel for independent operations. Units will return to the most recently chosen setting after shut-down and upon subsequent start-up.

Product SKU

ACWALLWASH72RGB

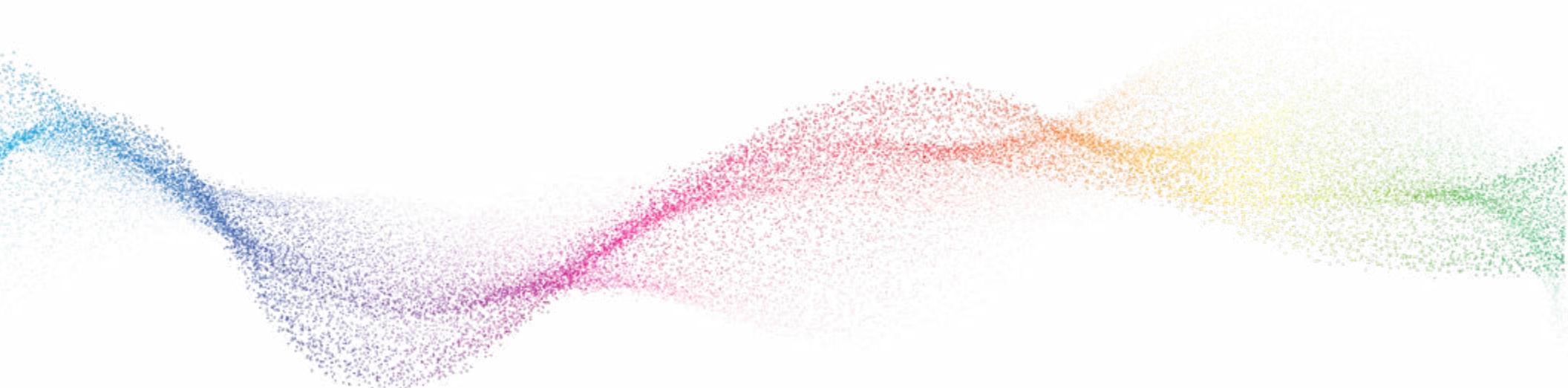
Specifications

LED Quantity	216
Projection Distance.....	130'
Dimensions.....	16"L x 13"W x 12"H
Weight	33 lb
Voltage	120V
Power.....	210 Watts
Wire.....	15' Power Cord Installed, Black
Operating Temperature.....	-31°F to 113°F / -35°C to 45°C
Certifications.....	IP65
Rated Life	50,000 Hours

No Additional Products Needed



Wires & Connectors



T Connectors



Basic T

Our Basic T Connectors deliver power from your Wireless Effects Controller to your light strands, and split light strands to run in parallel.

Basic T Connectors cannot be used for inline power injection.



Power T

If you're powering your RGB light display with a Wireless Effects Controller, our Power T Connector is a must-have to run your show. This connector helps power your WEC and allows you to extend the maximum capacity of your display.

Use this Power T Connector to inject power after 75-100 lights.



Smart T

Our Smart T Connectors extend the maximum capacity of your RGB display by connecting multiple light strings to a single output.

Smart T Connectors cannot be used for inline power injection.

Spacer & Extender Cables



Spacer Cables

Build the RGB display of your dreams with our Spacer Cables. These three-wire cables connect your Network Distribution Box to your RGB light strands.

Spacer Cables are available in 6', 12', and 18' lengths.

Product SKUs

- 6' LBRGBP-SPCBL6
- 12' LBRGBP-SPCBL12
- 18' LBRGBP-SPCBL18



Extender Cables

The extra-long counterpart to our Spacer Cables, these four-wire Extender Cables connect your NDB to your RGB display.

Extender Cables are available in 20', 25', and 50' lengths.

Product SKUs

- 20' LBRGBP-EXTCBL20
- 25' LBRGBP-EXTCBL25
- 50' LBRGBP-EXTCBL50

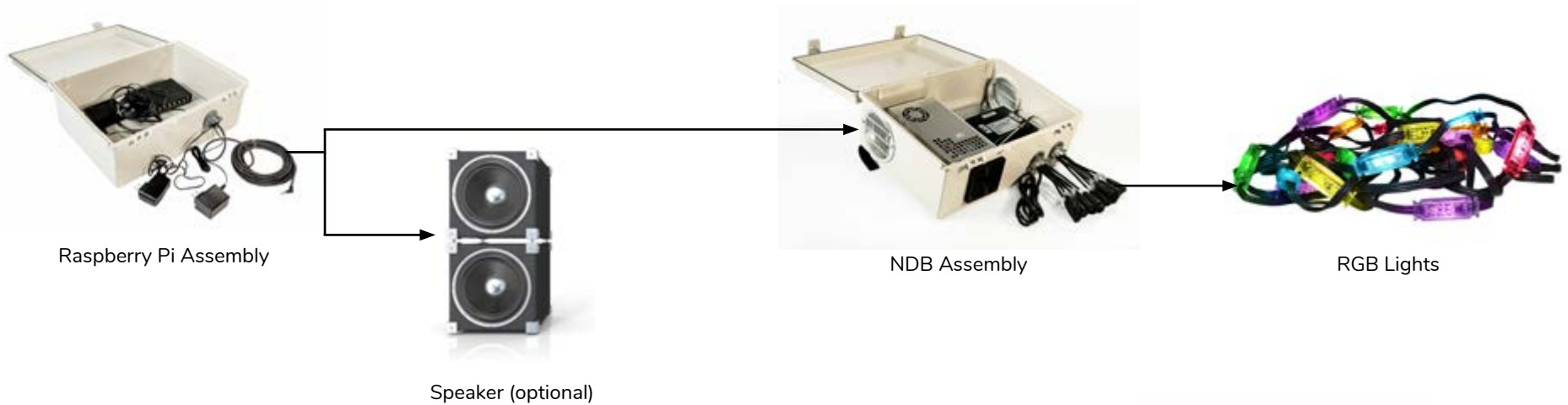
Sender & Receiver



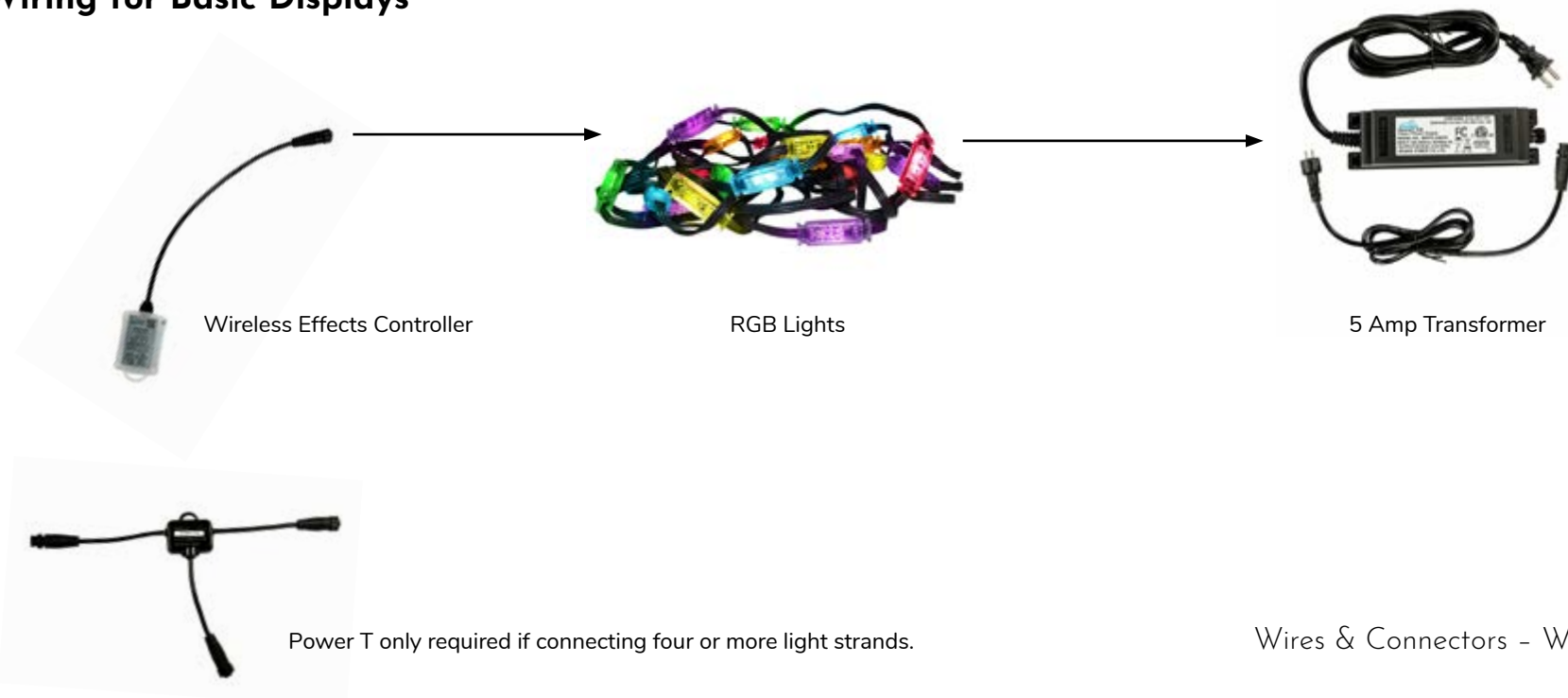
Data Boosters are required to connect light displays longer than 20 feet. Senders convert three-wire light strands to four-wire to connect to Extender Cables. Receivers convert four-wire to three-wire to connect to the next T Connector or light strand.

Wiring Diagram Examples

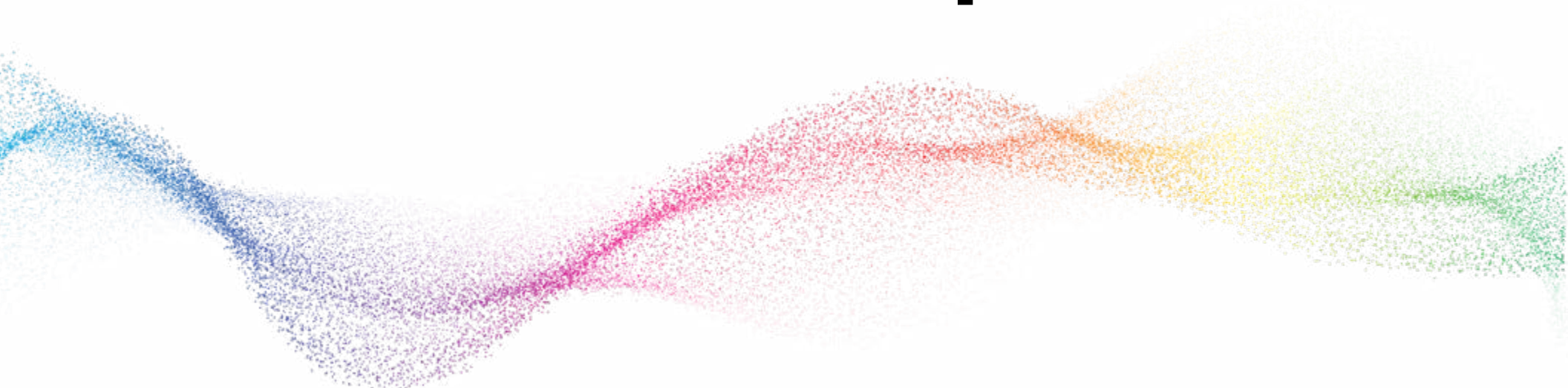
Wiring for Largescale Projects



Wiring for Basic Displays



Technical Components



Raspberry Pi Assembly



Our Raspberry Pi Assembly is what makes your RGB program shine! **We program this kit with all of your custom light displays so you don't have to worry about the technical aspects of your light show.** This assembly kit includes a Raspberry Pi computer and network switch.

This assembly connects to your Network Distribution Box and delivers data to your RGB lights. Connect this assembly to speakers for music-coordinated displays.

You will never need to program, handle, or touch your Raspberry Pi Assembly.



Network Distribution Box (NDB) Assembly



Our Network Distribution Box (NDB) manages and distributes your RGB software to your lights. Large displays typically require multiple NDBs.

All RGB products that require an NDB will come with all necessary equipment.

Product SKUs

NDB Replacement LBRGB-NDB

37.5 Amp Transformer LBRGB-TRN37.5A



Wireless Effects Controller (WEC+2)



Control your RGB light shows with our Wireless Effects Controller (WEC). These WECs store pre-programmed effects so you can easily control your light show via smartphone.

This standalone controller operates on Wifi and replaces the need for a Network Distribution Box and RGB Tree Controller. This WEC allows you to use the smartphone app Pixel Dancer to play your pre-programmed RGB shows.

This WEC controls up to 400 pixels. Link up to five WECs to control more pixels for a perfect display.

Product SKU

LBRGBP-WEC

Transformers



37.5 Amp Transformer

Our RGB Transformers allow you to create a show-stopping RGB color and effects show. RGB products that require transformers will come with the necessary equipment. Only purchase transformers if you require a replacement.

37.5 Amp Transformer

960-bulb capacity



5 Amp Transformer

5 Amp Transformer

100-bulb capacity



1.5 Amp Transformer

1.5 Amp Transformer

50-bulb capacity

For questions, further information, and to start your custom RGB program,
call 1-800-436-3627 or email info@dekra-lite.com today!



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