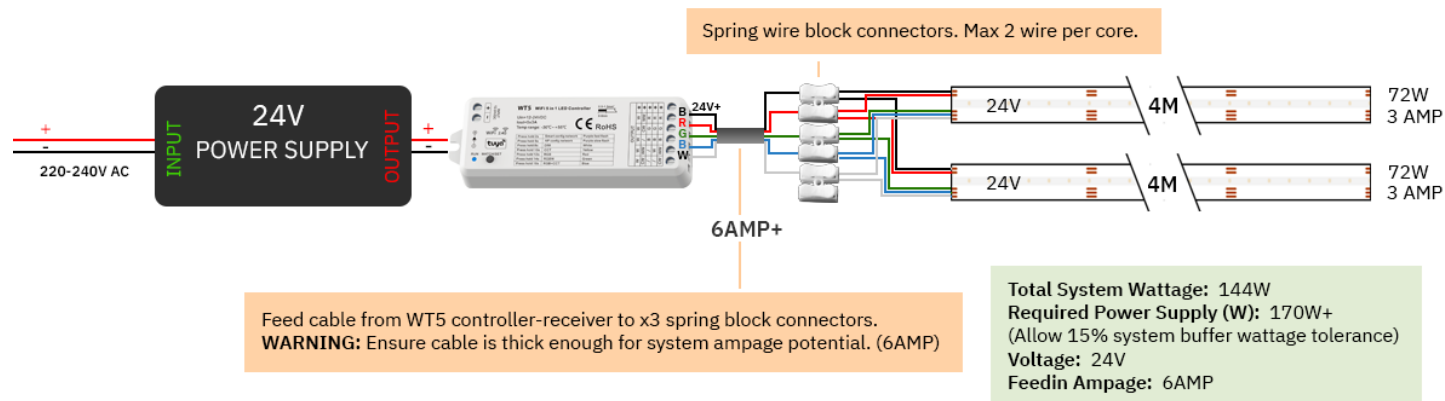


How to install 24V RGBW COB LED Tape Lights With Smartphone (Alexa / Google Voice) Control & Wireless Remote Handset.

EXAMPLE 1: 18W/M 840LED/M RGBW COB LED Tape Light Wiring Setup, 5 Cores (24V) - 2 x 4M Lengths



Typical Wiring Setup: Mains > 24V Power Supply > [WT5 Controller-Receiver](#) > [5 Core Flat Feed cable \(Check Amps Needed\)](#) > Spring Connectors > [RGBW COB LED Tape Lights](#) ((([Wireless 4 Zone Remote](#)

Note: Check to make sure the voltage of the power supply matches the voltage of the LED tape strip (24V in this case)

Advice: Uprise LED advise all electrical works be carried out by an electrician or professional electrical contractor.

Quick Summary: If you have a square / rectangle installation order x4 individual strips to length allowing for slightly extra that can be cut down at the ends with extended feed cables. Install with care and read below prior to install to save on pain and hassle. Simple.
RULE: 1 length per side.

Best Practise: Prior to installation of COB LED tape lights within aluminium extrusion channel (LED Profile) it's best practice to firstly test the COB LED strips on the 24V Power Supply, WT5 controller-receiver and Remote to ensure the system works. It is strongly recommended not to skip this step. Should you fail to do this and a fault arises during mounting it will make it harder to fix the issue and decrease probability of a solution resolution.

Always remember **P.O.L.E** - Path of least exposures. Sometimes the quickest way of doing something isn't always the fastest in the long run.

With seamless RGBW COB LED strip lights we want to minimise exposure to potential damage. Due to RGBW COB being new technology and with the many micro LEDs throughout the PCB we must treat the strip with respect. Like handling a precious artifact, we wouldn't drop it, thrash it about or scratch it. If you need practice in approaching with care, check this [handy link](#) out.

“All I want to know is where I’m going to die, so I’ll never go there.”

- Charlie Munger

Please NOTE: Before any LED strip light leaves Uprise LED Ltd it will have been tested to be working in full capacity. Prior to installation we want to ensure the LED solution doesn’t fail prematurely. We want the solution to have as long a life as possible. RGBW COB LED strips typically work very well but can be susceptible to damage via the following installation scenarios:

Actions that WILL cause damage, loss of time, money, incur pain and frustration to everyone involved during installation if done improperly.

Soldering - Be careful when soldering.

1) Take due care when re-soldering the product. If done without care or to a professional standard can damage the strip. Note RGBW COB strips have smaller solder pads than standard LED tapes.

Corner Connections - Be careful when soldering corner connections.

2) Be careful if creating a corner connection, i.e re-soldering two strips together. If done without care or to a professional standard can damage the strip light. We recommend one strip per length with extended tails.

Loose Joints / Snagging - Do not create tension between feed cable and solder joints.

3) Avoid snagging / pulling on the feed-in cable during installation. Resulting in loosened or detached solder joints.

Pre-Install: Ensure accurate measurement of the system. For example for plaster-in LED profile solutions measure required cable and allow for additional length. If it’s too short, extend with spring clip connector blocks.

Our Solution: Uprise aims to provide a sturdy, professional solder joint that comes with a secure heat shrink bracer. We can also provide a more solid marine grade gel brace which results in a super strong brace. This is not necessary if you do the following:

Your Solution: Don’t pull hard on the cable once installed. If the feed-in cable has been installed into a roof void allow adequate additional length than is needed.

Serrated Edge / Metal Debris - Ensure smooth, clean LED profile prior to LED tape mount.

4) Be wary of serrated edges / pointy metal filings on the aluminium extrusion (LED Profile) after it’s been cut to size or mitred. This can cause a short circuit within the LED strip.

Must do: Ensure all cut aluminium profile has been cleared of metal debris and sanded down to a smooth finish.

Solution: If in doubt, apply a further backing tape to the LED profile before mounting LED tape, i.e 3M 5952 VHB Acrylic Foam Tape.

Physical damage to LED tape - Don’t bash, knock or abuse the LED tape strip.

5) No bashing, knocks or bangs / rough installation. This can take sections of LEDs within the tape lights out.

Solution: Don’t rush the project. Install with care. Hire competent installers / electrical contractors.

Weight Bearing - Do not apply heavy glass, acrylic or materials directly to tape light.

6) Don't place materials or weight directly on top of the RGBW spotless tape light. In some instances, for example uplighting a glass panel you may be tempted to directly rest the material on top of the tape light directly. Don't do this. The RGBW "no spotting" tape light should be first mounted into an aluminium channel.

Power Supply Compatibility - Ensure correct voltage, watts and rating for PSU.

7) Avoid using the wrong Power Supply for the product. i.e a 12V PSU on a 24V LED strip light or vice versa. Solution: Check voltage on LED strip light and power supply match ahead of time. Install with care. Hire competent installers

Wattage Supply Tolerances - Build in a 10-15% wattage buffer within the system.

8) Ensure a level of "tolerance" within power supply parameters. i.e 8M x 18W = 144W powered via a 150W power supply (**WRONG**).

There should be a 10%-15% safety buffer tolerance built into the system.

Solution: Check the maximum watts/m on the LED tape along with the voltage. Now use a Watts to Amps calculator to check system requirements and ensure a 10-15%

safety buffer from maximum wattage draw against Power Supply parameters.

Good: 7M (24V) x 18W = 126W into a 150W 24V power supply is **GOOD**.

Bad: 8M (24V) x 18W = 144W into a 150W 24V power supply is **BAD**. 150W - 10% = 135W (this setup consumes 144W maximum and therefore does not build in a safety buffer).

System wiring - Ensure correct rated cables for Amps for each aspect of the system wiring.

9) **DO** use correct rated amps cable for the feed cable between Controller-Receiver > Feed Cable (Check cable is rated to Amps required) > block connector splitter > RGBW COB LED Tape

Use this handy [Watts to Amps Calculator by RapidTables](#)

Static Discharge & Electrical Interference - Wipe surfaces clean with anti-static cloth.

10) Be cautious of static buildup and discharge or other potential electrical interference. It's important to wipe all surfaces down with anti-static wipes and remove any protective film on perspex / diffuser ahead of time.

Alternatively the film can be removed when the LED is turned OFF, but never whilst ON. This is to avoid the potential for a static discharge into the LED circuitry damaging components.

Lesson: Whilst involved in supplying RGBW LED tape lights for the largest Candy store in the world (at the time) I gained valuable experience and a lesson in static buildup and discharge. A number of custom vertical LED panels had been installed on the inside of the store for display to both outside and inside on goers. The perspex panels had a thin layer of protective film and the LED tape lights had just been freshly mounted, then switched on. The protective film was pulled off releasing a surge of static into the LED tape lights which subsequently damaged them. This could have been avoided with foresight and understanding on static discharge.

Tape Flexing - Only bend or flex the LED tape up & down, don't warp or folder the COB LED tape

11) **DO NOT** Flex or fold the RGBW COB LED tape except upwards and downwards and be extra careful where solder joints have been made. This tape should not be warped or folded on corners as the chance of damage to the micro LEDs is extremely high. Even if there is no immediate damage to the micro LEDs at the corner bend there could be cascading electrical effects further down the line resulting in sections of strip failing.

Solder Joint Bridges - Do not overbend any solder joint bridge as these are weaker.

12) Be cautious of weaknesses in solder joints. Throughout the RGBW COB strip there are “bridging” solder joints where two tape light PCBs have been connected together. These are slightly weaker joints and susceptible to breaking if bent up/down too aggressively. At these points due care should be taken when handling and installing.

IP Rating - Pay attention to IP rating and the environment the strip light will be fitted.

13) DO ensure adequate IP protection for environment. As standard the IP20 version of this tape light is not protected against liquid ingress. Unless otherwise specified our RGBW or standard white COB LED tape lights are IP20 rated for internal applications. If an IP65 or above rating is indicated then appropriate waterproof rating will be explained.

LED Profile (Light Channel / Extrusion) - Ensure the right sized LED profile for the project.

14) Ensuring an adequate LED profile (aluminium channel). This RGBW “no dot” flexible LED strip light is 12mm wide and requires an LED profile extrusion 12mm or greater.

Whether we say seamless, dot free, spotless, dotless or “no dot” we mean the same thing, a LED tape light that provides a continuous light line visual with no hot spots as an end result. However to achieve this effect the strip light must be placed within an LED profile with a diffuser. If the RGBW seamless strip is not mounted within a profile it will still give a no spotting style impression from a distance but not up close.

Warranty

All LED strip lighting products that have been modified and supplied by Uprise LED come with a standard 1 year back to base warranty.

Uprise LED Ltd will not warrant products that have been modified by a third party installer, electrician or contractor. All LED strip light products are tested prior to despatch.

Last updated: 16-09-22, 15:36pm by Stevie Watts.

Hey there reader! If you have any further technical questions or if you're an installer and would like to send over some helpful information, tips or tricks to ensure LED installation peace of mind, we'd love to hear from you! Email us at sales@upriseled.com or for quick reply message us on whatsapp: 07957 180 481