

Important Information

- ▶ Please read these instructions carefully before installation or operation.
- ▶ Retain this manual and cable tag for future reference.
- ▶ Please refer to the product datasheet and listing for detailed information

Safety Precautions

- ▶ This product must be installed by a suitably competent person.
- ▶ Install in accordance with all local Codes and Regulations.
- ▶ Isolate the mains supply to the LED power supply before installing or maintaining the product.
- ▶ Ensure others cannot restore the electrical power supply without your knowledge.
- ▶ Do not install or use the product if it is damaged. Do not use with worn or damaged wires or components.
- ▶ Remove all packaging and fully uncoil the LED tape before connecting to the power supply.
- ▶ Protect the LED tape from static electricity.

Electrical

- ▶ Do not connect directly to mains electrical supply.
- ▶ This product must be used with a good quality SELV constant voltage LED driver.
- ▶ Ensure that the voltage output of the driver matches the rated voltage of the LED tape.
- ▶ Ensure that the power capacity of the LED driver is greater than the total load of all the LED products connected to it.
- ▶ The LED tape and cable should be protected by a fuse or equivalent device installed between the driver and LED tape and as close to the driver as possible.
- ▶ Ensure that the current capacity of the cable connecting the LED tape to the driver is greater than the maximum drawn by the LED tape and the cut off of any over current protection (fuse).
- ▶ Use a compatible pixel controller.

Mechanical

- ▶ The product will generate heat during use. It should be installed in a well ventilated location. Do not cover or conceal.
- ▶ Protect the LED tape from mechanical damage. Take care not to dislodge any components during installation. Ensure that wires connecting the LED tape cannot be pulled.
- ▶ Do not install in locations where it is subject to continuous movement.

Environmental

- ▶ Ensure the product is installed and operated within the specified ambient temperature (Ta) as outlined in the product datasheet and listing.
- ▶ IP20 LED tape is for indoor use only and must be protected from water and moisture.
- ▶ For other IP rated versions, refer to the product listing for suitability for the intended installation environment.
- ▶ Only install in a location free from chemicals, gases and flammable materials. Avoid continuous exposure to UV light unless the product is specified as suitable.

Maintenance

- ▶ Clean only with a dry, soft cloth.
- ▶ Do not use chemical cleaners or solvents.
- ▶ Do not attempt to repair individual LEDs or electronic components.

Disposal & Recycling

- ▶ This product must not be disposed of with household waste.
- ▶ Please return to an authorised recycling facility in accordance with local environmental regulations.

Pixel LED Strip Light



User Manual

IMPORTANT

- ▶ Please read these instructions before commencing any work.
- ▶ Please retain these instructions & cable tag for future reference.
- ▶ Please refer to product listing for detailed information.
- ▶ Remove all packaging before connecting to power supply.
- ▶ If the cable tag is removed, ensure it is retained and stored safely.

Product Warranty

1. A warranty period is provided for products in normal use. For any faults arising during the period that are confirmed to be quality related by inspection by the company, a product of the same specification will be replaced for free.
2. The warranty does not cover any of the following:
 - (1) Any product damage due to usage not allowed in the instructions.
 - (2) Any product damage due to disassembling or wrong operation by the user.
 - (3) Severe appearance damage or deformation of the product.



Cutting

Cut only on the marked cut points

- ▶ Cut only on the marked cut points. Make a clean, straight cut across the marked cutting position.
- ▶ Do not cut through LEDs, ICs or other components.
- ▶ After cutting, identify the data input end of each section. A new data input cable may need to be connected to one of the sections.

Tolerance & Bend

- ▶ Do not fold the LED tape or bend it side to side unless the product is specifically designed for this.
- ▶ Follow the permitted bending direction stated in the product datasheet and listing. The radius of any bends must not be less than the specified minimum bend radius.
- ▶ Do not twist, pull or stretch the LED tape.
- ▶ Do not bend directly across LEDs, ICs, solder joints or connectors.

Mounting

The LED tape should be mounted to a thermally conductive surface such as aluminium or aluminium profile.

1. Ensure the surfaces you are mounting to are clean, smooth, dry and free of grease, oil and dirt particles.
2. Make sure the objects/materials you are attaching to are firmly fixed to a surface.
3. Ensure the protective tape backing is completely removed before installation.
4. When installing SMD tape, press down on the tape between the LEDs and other components. For COB tape, apply gentle, even pressure and do not use hard or sharp tools to press the tape into position.
5. If installing on a downward facing surface, use suitable fixing clips or retaining accessories.

Soldering

1. Make sure you are soldering in a well ventilated area, wearing protective eyewear and using suitable solder-fume extraction.
2. Check that the solder pads are clean and undamaged.
3. Where required, use a suitable electronics flux on the areas being soldered.
4. Before soldering, tin plate the cable ends and solder pads first.
5. Use the soldering temperature and maximum contact time specified for the product.
6. Allow the solder point to completely cool down after every solder.
7. Check completed joints for solder bridges, loose strands and poor connections before applying the protection described in the 'Wiring' section.

WARNING:

For more information on the soldering process & safety precautions, please follow the soldering iron manufacturer's instructions.

Wiring

WARNING: Check polarity (+/-) is correct before turning on.

WARNING: Never connect DATA to +V.

- ▶ The LED tape is labelled with data arrows and DO (data out) and DI (data in) markings. Connect the data output of the controller to the data input of the LED tape, following the direction of the arrows.
- ▶ When connecting tape sections together, connect DO (data out) of the preceding section to DI (data in) of the next section.
- ▶ Check that the IC type setting on the controller matches the IC type of the LED tape.
- ▶ Ensure that the GND of each LED tape section is connected to the GND on the controller, in accordance with the wiring diagram.
- ▶ Refer to the product and controller instructions for the maximum length of data cable between the controller and LED tape.
- ▶ Insulate and protect all wiring connections and exposed ends. Where these could contact a metallic mounting surface, apply an insulating layer to prevent short circuits.
- ▶ For silicone jacketed LED tape, seal all cut ends and connections using suitable end caps and silicone glue, following the product specific sealing instructions.

NOTE: Cable colours and additional signal connections vary between products. Refer to the cable tag and product specific wiring information before making connections. Do not assume all three core or four core products use the same cable colours or connections.

NOTE: Do not assume that the original IP rating is maintained after cutting or joining.

SKU	IC Type	Cable Colours	Key	
			(+)	Positive
ED12-RGB-60	RT1806 (WS2811)	Red (+), Green (DI), Yellow (BI), Black (GND)	(DI)	Data In
ED24-RGB-420	TM1903 (WS2811)	Red (+), Green (DI), Black (GND)	(BI)	Backup In
TD24-5M	WS2811	Red (+), Green (DI), Black (GND)	(GND)	Ground
TD12-RGB-60	GS8208	Red (+), Green (DI), Yellow (BI), Black (GND)		
TD24-RGB-120-V2	TM1804	Red (+), Green (DI), Black (GND)		
TD12-RGB-144	GS8208	Red (+), Green (DI), Yellow (BI), Black (GND)		
TD24-RGB-96	WS2811	Red (+), Green (DI), Black (GND)		
TD24-RGB-COB	WS2811	Red (+), Green (DI), Black (GND)		
TD24-RGBW120	WS2814	Red (+), Green (DI), Black (GND)		
TD24-RGBWCOB	WS2814	Red (+), Green (DI), Black (GND)		
TD24-COB5M	WS2811	Red (+), Green (DI), Black (GND)		
TD24-2765KC0B5M	WS2811	Red (+), Green (DI), Black (GND)		
TD24-RGB3065KC0B5M	WS2805	Red (+), Green (DI), Blue (BI), Black (GND)		

Troubleshooting

- ▶ **LED tape does not respond to the controller**
Check the power supply and connections against the 'Electrical' and 'Wiring' sections.
- ▶ **LED tape illuminates, but the animation is distorted or only single colours operate correctly**
Check the controller's IC setting, GND connections and data-cable length against the requirements in the 'Wiring' section.