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› JOYLIT Diffused COB LED Light Strip User Manual

JOYLIT COB-24V-280-5M-IP65-30K

JOYLIT Diffused COB LED Light Strip User Manual

Brand: JOYLIT | Model: COB-24V-280-5M-IP65-30K

1. INTRODUCTION

Thank you for choosing the JOYLIT Diffused COB LED Light Strip. This manual provides essential information for the safe and effective installation, operation, and maintenance of your new LED light strip. Please read this manual thoroughly before use and retain it for future reference.

Product Overview

The JOYLIT Diffused COB LED Light Strip is a high-quality lighting solution designed for both indoor and outdoor applications. Featuring a milky white silicone gel coating, it provides a seamless, dot-less illumination, creating a smooth and uniform light output. This 24V LED strip is super bright, dimmable, and boasts a high Color Rendering Index (CRI) of 92+, ensuring vibrant and accurate color representation.



Image: The JOYLIT Diffused COB LED Light Strip emitting a warm white light, showcasing its seamless illumination.

Key Features

- **Upgraded Diffused Design:** Features a solid milky white silicone gel coating for a truly dot-less, uniform light output.
- **High Brightness:** 525 LM/FT, 8600 Lumens total for 16.4ft, providing ample illumination.
- **High CRI 92+:** Ensures excellent color rendering, making objects appear more vivid and natural.
- **Dimmable:** Smooth 0-100% dimming capability without flicker (dimmer sold separately).
- **IP65 Waterproof:** Suitable for both indoor and outdoor use, offering protection against water jets.
- **UL Certified 24V Low Voltage:** Safe for human touch, ensuring user safety.
- **Durable Construction:** Double-layer copper PCB board for better conductivity and heat dissipation, rated for 65,000 hours.



Image: A visual comparison demonstrating the smooth, uniform light of the diffused LED strip versus a traditional LED strip where individual LEDs are visible.

2. SAFETY INFORMATION

Please observe the following safety precautions to prevent injury or damage to the product:

- **Voltage:** This LED strip operates on DC 24V. Do NOT connect it directly to 12V, 120V, or 220V AC power sources. Use only a compatible 24V DC power supply.
- **Power Supply:** A 24V 5A power supply (100W) is required and sold separately. Ensure the power supply's wattage meets or exceeds the strip's requirements.
- **Heat Dissipation:** While the strip is designed to operate within safe temperature ranges, prolonged use, especially in enclosed spaces, may cause it to feel warm. For optimal performance and longevity, consider installing the strip in an aluminum channel to aid heat dissipation.
- **Cutting:** The LED strip can be cut at designated marks (approximately every 2.5cm). Always ensure the power is OFF before cutting.
- **Waterproofing:** The strip is IP65 waterproof. However, cuts or damaged sections may compromise its water

resistance. Ensure all connections are properly sealed if used in wet environments.

- **Installation:** Ensure the installation surface is clean, dry, and smooth for proper adhesion. Avoid bending the strip sharply or applying excessive force.
- **Children:** The 24V low voltage is safe for human touch, including children. However, keep small components and packaging materials away from children to prevent choking hazards.



Image: An illustration emphasizing the safety of the 24V low voltage LED strip, showing a baby near the light with a safety shield icon.

3. WHAT'S IN THE BOX

Your JOYLIT Diffused COB LED Light Strip package includes:

- 1 x 16.4ft (5m) JOYLIT Diffused COB LED Light Strip (3000K Warm White, 10MM Wide)

Note: A 24V 5A power supply and an LED dimmer are NOT included and must be purchased separately to operate the light strip.



Image: The contents of the product package, including the coiled LED strip, a small instruction leaflet, and a sealed bag.

4. TECHNICAL SPECIFICATIONS

Feature	Specification
Model Number	COB-24V-280-5M-IP65-30K
Length	16.4 ft (5 meters)
Board Width	10 mm (0.4 inches)
Input Voltage	DC 24V
Max Output Power	100 watts
LED Chips	1400 LEDs/reel (280 LEDs/meter)

Feature	Specification
Color Temperature	3000K Warm White
CRI (Ra)	92+
IP Rating	IP65 Waterproof
Lumen	525 lumen/ft (8600 Lumens total)
Adhesion	Strong adhesion backing tape (3M)
Lifespan	Rated for 65,000 hours
Material	Copper PCB

For detailed product information and energy efficiency data, please refer to the EPREL database:
<https://eprel.ec.europa.eu/qr/1499588>

92+ Ra CRI

The higher the CRI, the better the color rendering ability



CRI > 92



CRI < 80



CRI > 92



CRI < 80

Image: A visual comparison demonstrating the superior color rendering of CRI 92+ lighting compared to CRI 80, showing more vibrant and accurate colors.

5. SETUP AND INSTALLATION

Follow these steps for proper installation of your LED light strip:

1. **Plan Your Layout:** Before cutting or adhering, plan the desired path for your LED strip. Ensure the length is appropriate for your application.
2. **Prepare the Surface:** Clean the installation surface thoroughly. It must be dry, smooth, and free of dust, oil, or debris to ensure optimal adhesion of the backing tape.
3. **Cut the Strip (if necessary):** If a shorter length is required, cut the LED strip only at the designated cutting marks (indicated by copper pads and a scissor icon). Ensure the power is disconnected before cutting.
4. **Prepare for Connection:** If you cut the strip, you will need to expose the copper contact points for soldering or connecting with appropriate connectors (not included). For waterproof strips, carefully remove the silicone coating over the contact points.

5. **Connect Power Supply:** Connect the LED strip to a compatible 24V DC power supply (sold separately). Ensure correct polarity (+ to + and - to -).
6. **Integrate Dimmer (Optional):** If you wish to dim the lights, connect a compatible LED dimmer (sold separately) between the power supply and the LED strip. Refer to the dimmer's instructions for specific wiring.
7. **Peel and Stick:** Carefully peel off the protective backing from the 3M adhesive tape on the back of the LED strip. Press the strip firmly onto the prepared surface, applying even pressure along its entire length.
8. **Secure Connections:** Ensure all electrical connections are secure and insulated to prevent short circuits.
9. **Test:** Once installed, connect the power supply to an outlet and test the light strip.

Dimmable Without Flicker

Power Supply & Dimmer Sold Separately

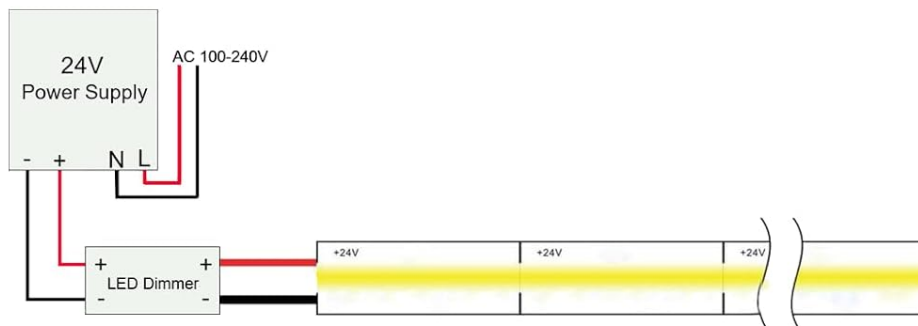
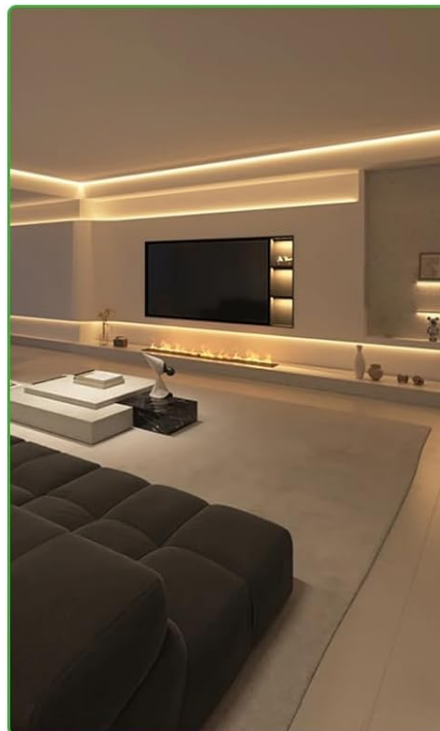
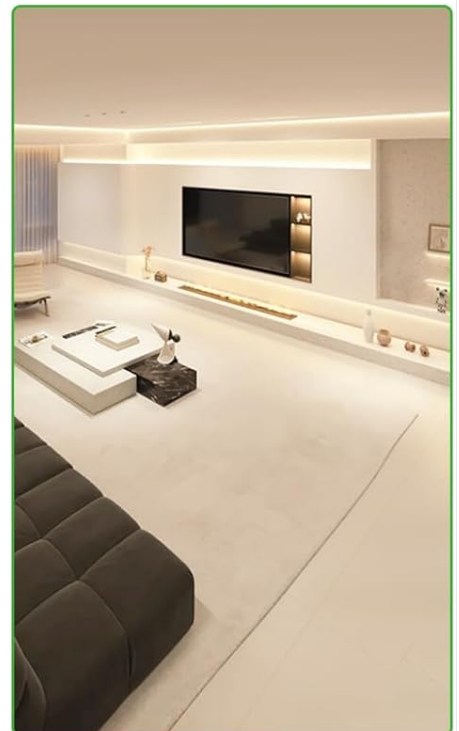


Image: A diagram illustrating the wiring connections for the LED strip, including a 24V power supply and an optional LED dimmer.



Image: A close-up view of the LED strip showing the strong 3M adhesive backing, ready for installation.

Completely Spotless Effect



Image: An example of the LED strip installed under a shelf, demonstrating the completely spotless and uniform lighting effect in a room.

6. OPERATING INSTRUCTIONS

Once properly installed and connected to a 24V DC power supply, your JOYLIT LED light strip is ready for operation.

- **Turning On/Off:** The light strip will turn on when power is supplied to it. If connected to a switch or dimmer, use that device to control power.
- **Dimming:** If an LED dimmer is installed, you can adjust the brightness from 0% to 100% smoothly without any flickering. The method of control (APP, remote, voice, or touch) depends on the specific dimmer model you choose.
- **Optimal Performance:** For best results, ensure the strip is not covered or obstructed, allowing for proper light distribution.

Dimmable Without Flicker

Power Supply & Dimmer Sold Separately

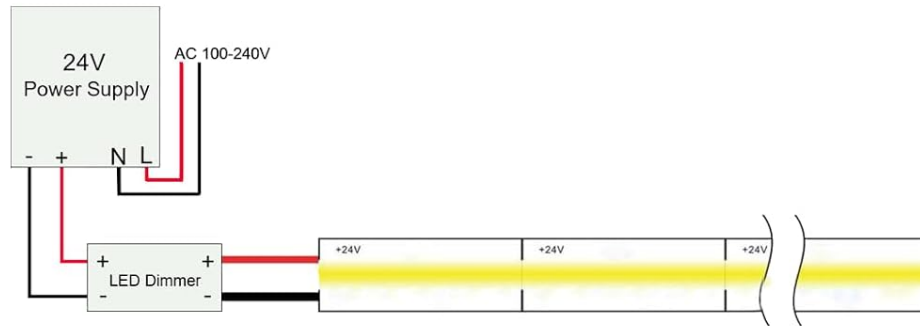


Image: A visual representation of the LED strip's dimming capability, showing the light output at different brightness percentages from 1% to 100%.

7. CARE AND MAINTENANCE

To ensure the longevity and optimal performance of your LED light strip, follow these maintenance guidelines:

- **Cleaning:** Disconnect power before cleaning. Gently wipe the surface of the LED strip with a soft, dry, or slightly damp cloth. Avoid using harsh chemicals, abrasive cleaners, or excessive water, especially on cut ends or connections.
- **Heat Management:** While the strip is designed for efficient heat dissipation, prolonged operation in enclosed spaces or high ambient temperatures can affect its lifespan. Consider installing the strip in an aluminum channel to enhance heat dissipation, particularly for high-wattage applications.
- **Inspection:** Periodically inspect the strip for any signs of damage, such as cuts, cracks, or loose connections. Address any issues promptly to prevent further damage or safety hazards.
- **Storage:** If storing the strip, ensure it is coiled loosely and kept in a cool, dry place away from direct sunlight and extreme temperatures.

8. TROUBLESHOOTING GUIDE

If you encounter issues with your JOYLIT LED light strip, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Light strip does not turn on.	No power supply; Incorrect voltage; Loose connections; Faulty power supply/dimmer.	Ensure 24V DC power supply is connected and working. Check all connections for proper polarity and tightness. Verify the power supply and dimmer (if used) are functional.
Light strip flickers or dims inconsistently.	Incompatible dimmer; Unstable power supply; Overloaded circuit.	Ensure the dimmer is compatible with 24V DC LED strips. Check power supply for stable output. Ensure total wattage of LED strips does not exceed power supply capacity.
Sections of the strip are not lighting up.	Damaged section; Poor connection at a cut point.	Inspect the non-lighting section for visible damage. If at a cut point, re-check connections or re-solder.
Light strip feels very hot to the touch.	Insufficient heat dissipation; Overvoltage.	Ensure proper ventilation around the strip. Consider installing the strip in an aluminum channel to improve heat dissipation. Verify input voltage is exactly 24V DC.
Difficulty wiring connections after cutting.	Silicone coating obscuring contacts.	Carefully and gently remove the milky white silicone gel coating from the copper contact points using a sharp, non-conductive tool to expose them for soldering or connecting.

If the problem persists after trying these solutions, please contact customer support.

9. WARRANTY INFORMATION

JOYLIT products are manufactured to high-quality standards. While specific warranty details are not provided in this manual, most JOYLIT products come with a limited manufacturer's warranty covering defects in materials and workmanship under normal use. Please retain your proof of purchase for any warranty claims.

For detailed warranty terms and conditions, please visit the official JOYLIT website or contact customer support.

10. CUSTOMER SUPPORT

For further assistance, technical support, or inquiries regarding your JOYLIT Diffused COB LED Light Strip, please contact JOYLIT customer service through the following channels:

- **JOYLIT Store on Amazon:** Visit the official JOYLIT store for product information and support:
<https://www.amazon.com/stores/JOYLIT/page/E270CB4B-9326-4704-91B1-E01EF57DC712>
- Refer to your product packaging or the JOYLIT website for additional contact information.

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and use this page's manual context to help answer it.

Name

Anonymous

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

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