

JOYLIT TKPW24-5

JOYLIT DC 24V 5A 120W Power Supply Adapter User Manual

Model: TKPW24-5

1. INTRODUCTION

Thank you for choosing the JOYLIT DC 24V 5A 120W Power Supply Adapter. This device is designed to convert AC 110V/220V input to a stable DC 24V output, suitable for a wide range of electronic devices requiring 0-5A current, up to a maximum of 120W. Its robust design includes safety features and efficient heat dissipation for reliable performance.

2. SAFETY INFORMATION AND IMPORTANT NOTES

Please read these instructions carefully before installation and operation to prevent damage or injury.

- The 110V/220V input voltage must be selected using the switch before connecting the power supply to avoid damage. For use in the USA, set the switch to 110V.
- It is recommended to leave at least 20% capacity of the power supply unused for longer product lifespan and stable operation.
- Do not overload the power supply beyond its specified 120W (24V 5A) limit.
- This product does not include installation instructions, wiring cables, an on/off switch, or screws.
- Professional installation by a qualified electrician is highly recommended to ensure safe and correct wiring.
- The unit features short circuit, overload, and over-voltage protection.

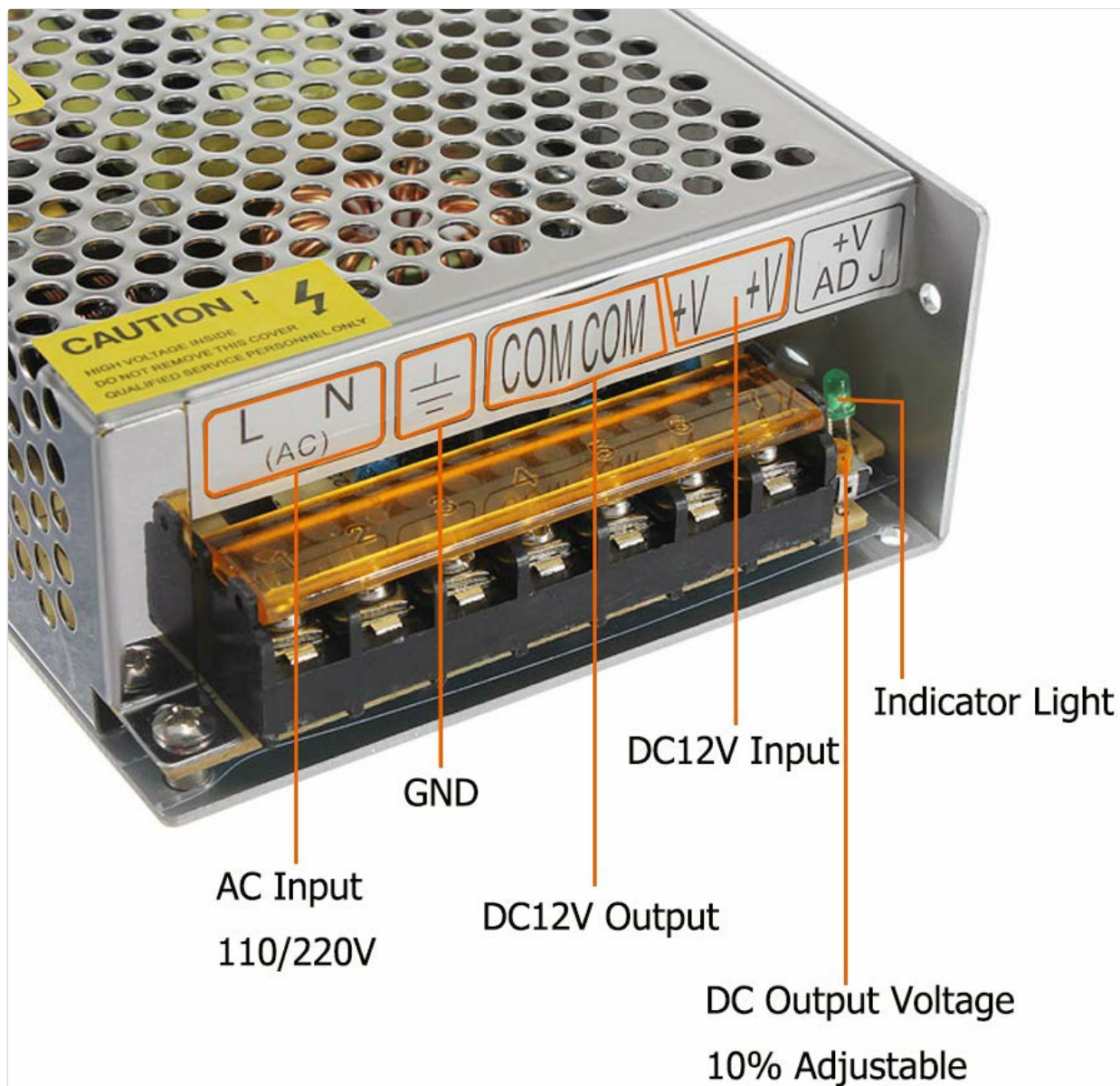


Image: Close-up view of the voltage selection switch (110V/220V) on the power supply. Ensure this is set correctly before use.

3. PRODUCT OVERVIEW AND FEATURES

The JOYLIT DC 24V 5A 120W Power Supply is a regulated switching transformer designed for various applications. Key features include:

- **Input:** AC 110V/220V (selectable)
- **Output:** DC 24V, 5A (Max 120W)
- **Adjustable Output Voltage:** Output voltage can be adjusted by approximately 10% using an onboard potentiometer.
- **Dual Output Channels:** Provides two sets of output terminals for connecting multiple electronic devices.
- **Safety Protections:** Built-in fuse, short circuit protection, overload protection, and over-voltage protection.
- **Silent Operation:** Fanless design ensures quiet running.
- **Efficient Heat Dissipation:** Honeycomb design for effective cooling without a fan.

- **High-Quality Components:** Features best capacitors, anti-interference design, safety cover, copper transformer, integrated ICs, and filtering for stable performance.

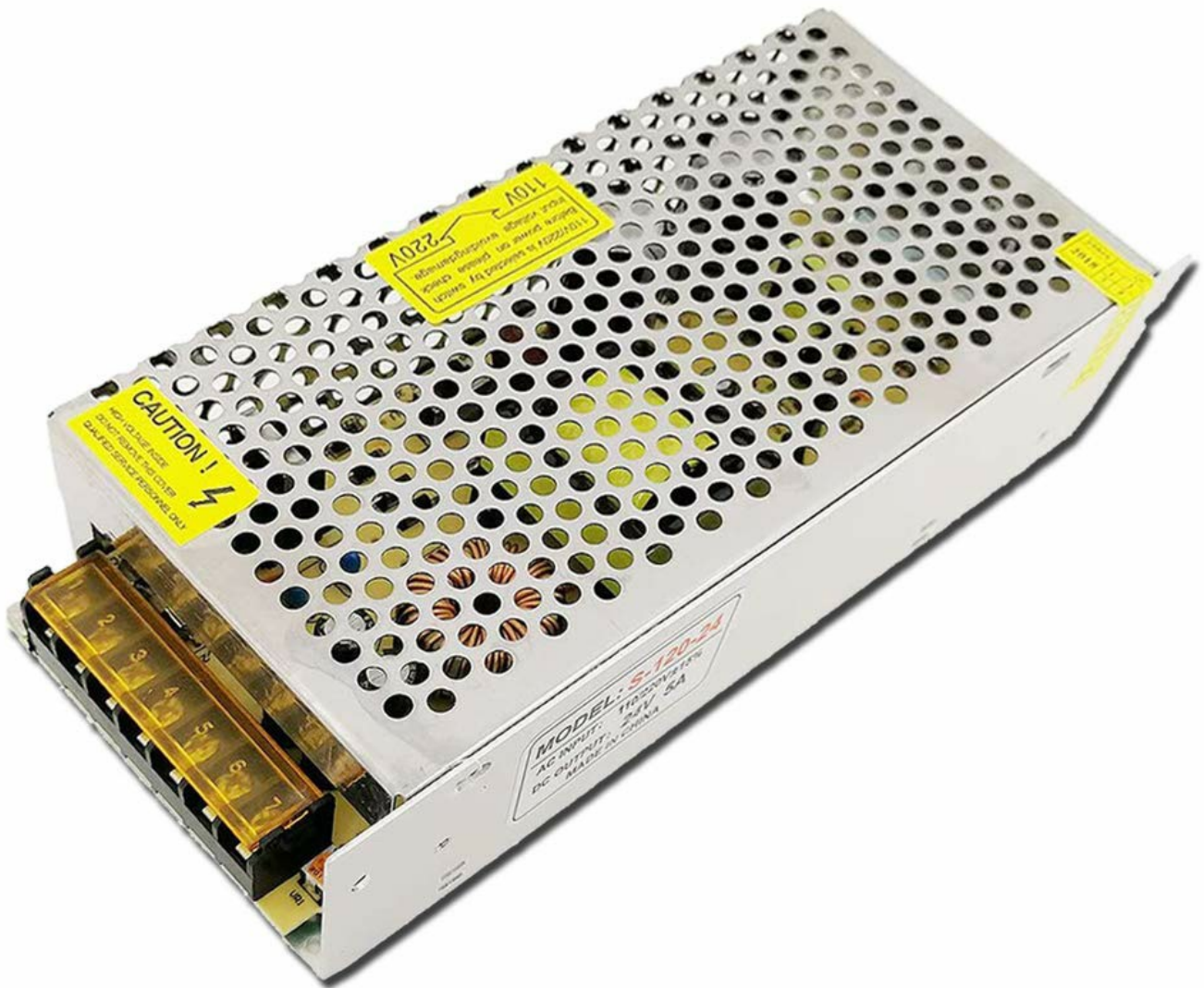
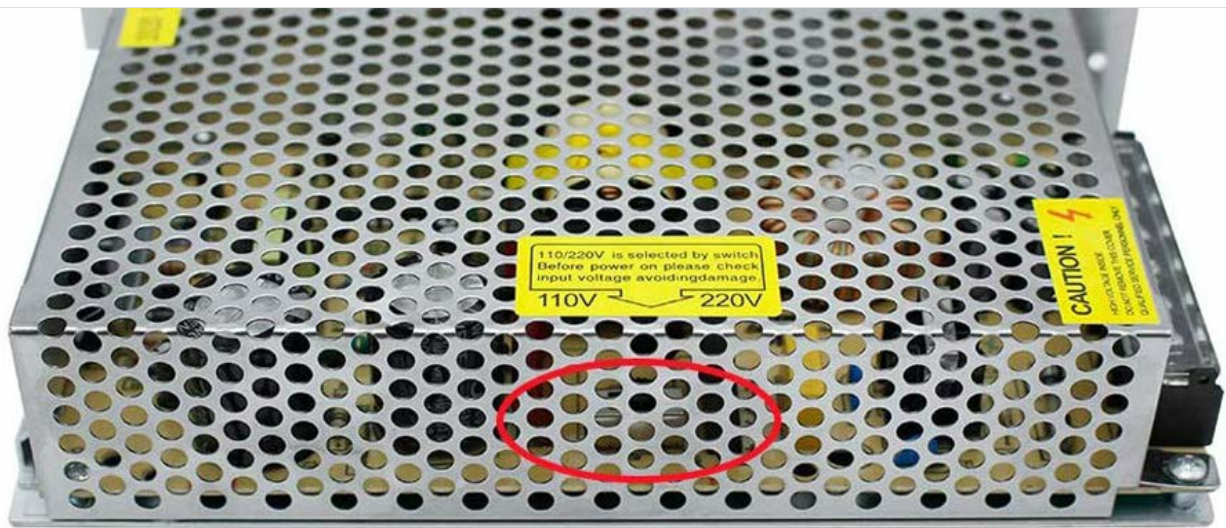


Image: The JOYLIT DC 24V 5A 120W Power Supply Adapter, showcasing its metal casing with ventilation holes.



Attention:

110V/220V is selected by switch. Please set the switch to 110V for USA.

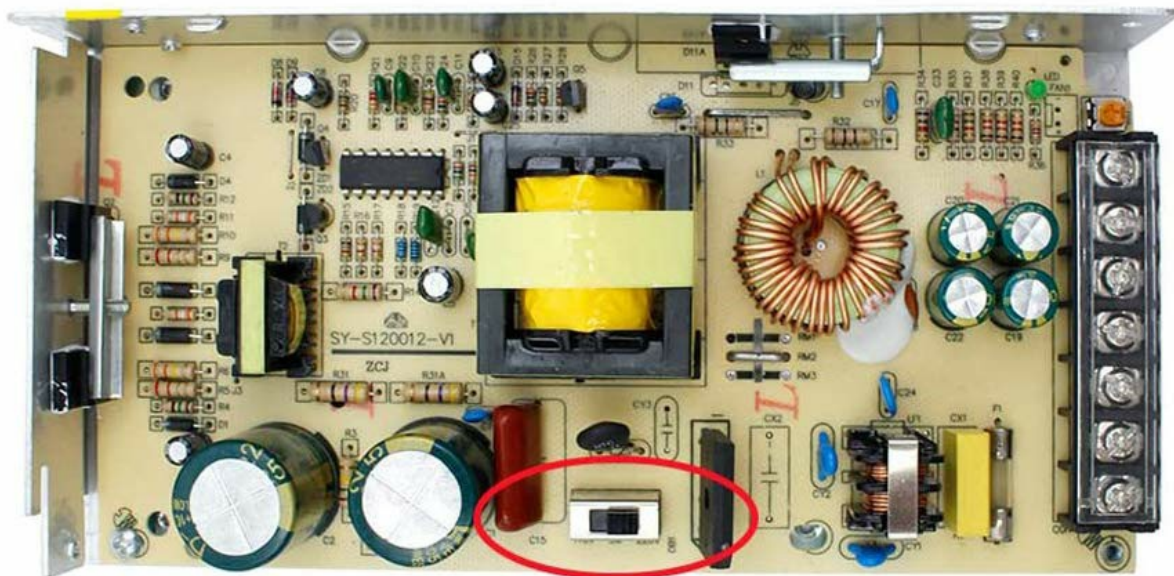


Image: Diagram highlighting key features such as fanless design, dual output channels, and smart IC for protection.

4. SETUP INSTRUCTIONS

Follow these steps for proper installation and setup:

1. **Voltage Selection:** Before connecting any power, locate the 110V/220V switch on the side of the unit. Set it to the appropriate voltage for your region (e.g., 110V for North America). Failure to do so can damage the unit.
2. **Mounting (Optional):** Secure the power supply in a well-ventilated area using appropriate mounting hardware (not included). Ensure adequate airflow around the unit for optimal heat dissipation.
3. **Input Wiring:** Connect the AC input wires to the terminal block labeled 'L' (Live), 'N' (Neutral), and the Ground symbol. Ensure connections are secure.
4. **Output Wiring:** Connect your 24V DC devices to the output terminal blocks labeled '+V' and '-V' (or COM for ground). The power supply offers two sets of output channels.
5. **Verify Connections:** Double-check all wiring for correct polarity and secure connections before applying power.



Image: Detailed view of the terminal block, showing connections for AC input (L, N, Ground) and DC output (+V, -V/COM), along with the indicator light and voltage adjustment screw.

5. OPERATING INSTRUCTIONS

Once properly installed and wired:

1. **Power On:** Apply AC power to the unit. The indicator light on the terminal block should illuminate, indicating the unit is receiving power and operating.
2. **Voltage Adjustment:** If fine-tuning of the output voltage is required, use a small screwdriver to carefully adjust the 'ADJ' potentiometer located near the output terminals. Adjust slowly and monitor the output voltage with a multimeter to ensure it meets your device's requirements. The voltage is adjustable by approximately 10%.
3. **Application:** The power supply is suitable for various 24V applications such as LED strips, 3D printers, ham radio transceivers, CCTV cameras, car subwoofer amplifiers, audio amplifiers, wireless routers, and more.

Lighting

Household equipment

industrial equipment

Monitoring equipment



Applications:

- ✓ Industrial automation machinery
- ✓ Industrial control system
- ✓ Mechanical and electrical equipment
- ✓ Electronic instruments, equipments or apparatus

Image: Examples of common applications for the power supply, including lighting, household equipment, industrial machinery, and monitoring systems.

6. MAINTENANCE

The JOYLIT power supply is designed for low maintenance. Follow these guidelines:

- **Keep Clean:** Ensure the unit's ventilation holes are free from dust and debris to maintain optimal heat dissipation. Use a soft, dry cloth for cleaning.
- **Avoid Overload:** Do not exceed the maximum rated output of 120W (24V 5A) to prevent overheating and premature failure.
- **Environmental Conditions:** Operate the power supply within its specified temperature and humidity ranges. Avoid exposure to moisture or extreme temperatures.
- **Regular Inspection:** Periodically check wiring connections for tightness and signs of wear or damage.

7. TROUBLESHOOTING

If you encounter issues with your power supply, consider the following:

- **No Power Output:**
 - Check if the AC input voltage switch (110V/220V) is set correctly for your region.
 - Verify that the AC input power is connected and active.
 - Inspect all wiring connections for looseness or incorrect polarity.
 - Check for blown fuses (internal protection). If the fuse is blown, it may indicate an overload or short circuit.
- **Flickering or Unstable Output:**
 - Ensure the load connected does not exceed the power supply's maximum wattage (120W) or current (5A).
 - Verify that the output voltage adjustment (ADJ potentiometer) is set correctly.
 - Check for any loose connections in the output wiring.
 - Some dimming circuits or specific LED types might introduce noise or flicker. Test with a different load if possible.
- **Low Voltage Output:**
 - Confirm the input voltage switch is set correctly.
 - Measure the output voltage with a multimeter and adjust the 'ADJ' potentiometer if necessary.
 - Ensure the load is not drawing excessive current, which can cause voltage drop.
- **Unusual Noise (Buzzing/Whining):**
 - A slight buzz can sometimes occur, especially with certain loads or when dimming. If the noise is excessive or accompanied by performance issues, check for loose components or consult support.

8. SPECIFICATIONS

Specification	Value
Brand	JOYLIT
Model Number	TKPW24-5
Input Voltage	AC 110V / 220V (Switchable)
Output Voltage	DC 24V
Output Current	5 Amps
Output Power	120 Watts (Max)
Output Voltage Adjustment	±10%
Frequency	50/60 Hz
Product Dimensions (D x W x H)	1.65" x 3.86" x 1.65" (4.19cm x 9.8cm x 4.19cm)
Item Weight	350 Grams
Protection Features	Short Circuit, Overload, Over Voltage

Specification	Value
Cooling	Fanless, Honeycomb Design

9. WARRANTY

JOYLIT products are manufactured to high-quality standards. For specific warranty details, please refer to the product packaging or contact JOYLIT customer support. Keep your purchase receipt as proof of purchase.

10. CUSTOMER SUPPORT

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact JOYLIT customer service through the retailer where the product was purchased or visit the official JOYLIT website for contact information.

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