

XWST 09-36V to 12V-10A

XWST 9V-36V to 12V Stabilizer Boost Buck Converter Instruction Manual

Model: 09-36V to 12V-10A

1. INTRODUCTION

This manual provides essential information for the safe and effective use of your XWST 9V-36V to 12V Stabilizer Boost Buck Converter. This device is designed to convert a wide range of DC input voltages (9V-36V) into a stable 12V DC output, making it suitable for various applications requiring a consistent 12V power supply. It features automatic step-up and step-down voltage regulation, ensuring a stable output regardless of input fluctuations.

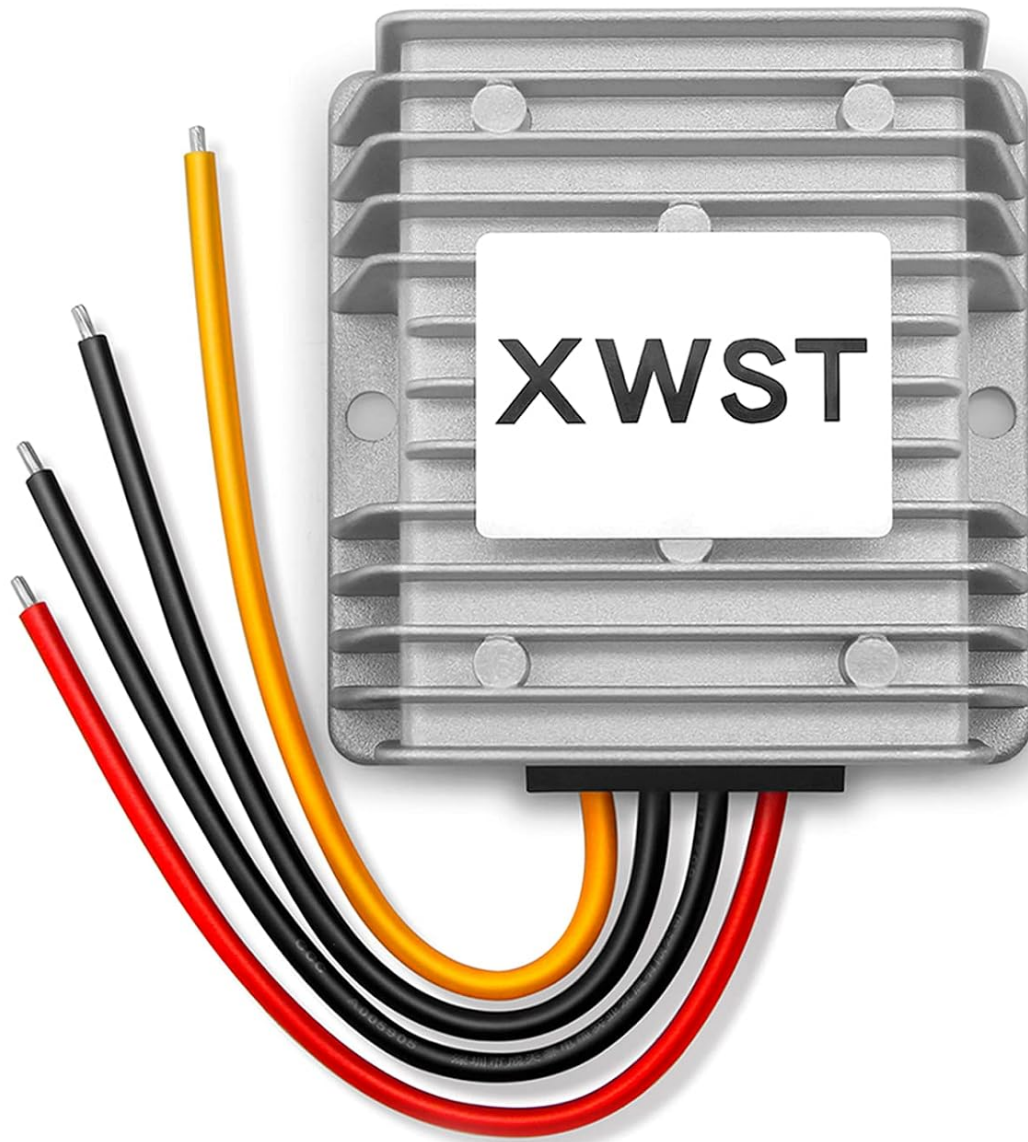


Figure 1: XWST 9V-36V to 12V Stabilizer Boost Buck Converter with wiring.

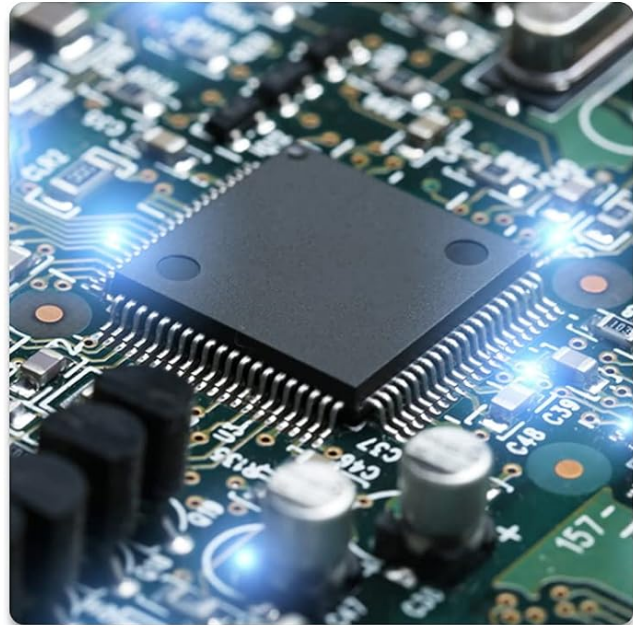
2. PRODUCT FEATURES

- **Wide Input Voltage Range:** Accepts DC input from 9V to 36V (compatible with 12V and 24V systems).
- **Stable Output:** Provides a regulated 12V DC output with a maximum current of 10A and power of 120W.
- **Automatic Step-Up/Down:** Functions as both a boost and buck converter to maintain constant output voltage.
- **Robust Protection:** Equipped with over-current and over-temperature protection mechanisms.
- **Environmental Durability:** Features potting technology for waterproof (IP67), dust-proof, moisture-proof, and shock-proof performance, suitable for diverse environments.
- **High Efficiency:** Utilizes synchronous rectification technology, achieving over 93% conversion efficiency and low heat generation.
- **Integrated Design:** Incorporates a high-integrated chip for stable and reliable operation.



INTELLIGENT CHIPSET

Intelligent imported smart chips with Over-voltage protection, Over heat protection, Over current protection and short-circuit protection



HIGH FREQUENCY RESISTANCE

Imported high temperature resistant with pure copper coils high current inductors, stable output

Figure 2: Internal components illustrating the intelligent chipset and high-frequency resistance for stable output.

3. SPECIFICATIONS

Parameter	Value
Input Voltage Range	DC 9V - 36V
Output Voltage	DC 12V
Output Current	10A (Max)
Output Power	120W (Max)
Conversion Efficiency	> 93%
Waterproof Rating	IP67

Parameter	Value
Product Dimensions (L x W x H)	74mm x 74mm x 32mm (2.91 x 2.91 x 1.26 inches)
Item Weight	250 Grams (8.82 ounces)
Mounting Type	Rack Mount (via screw holes)

Product Size

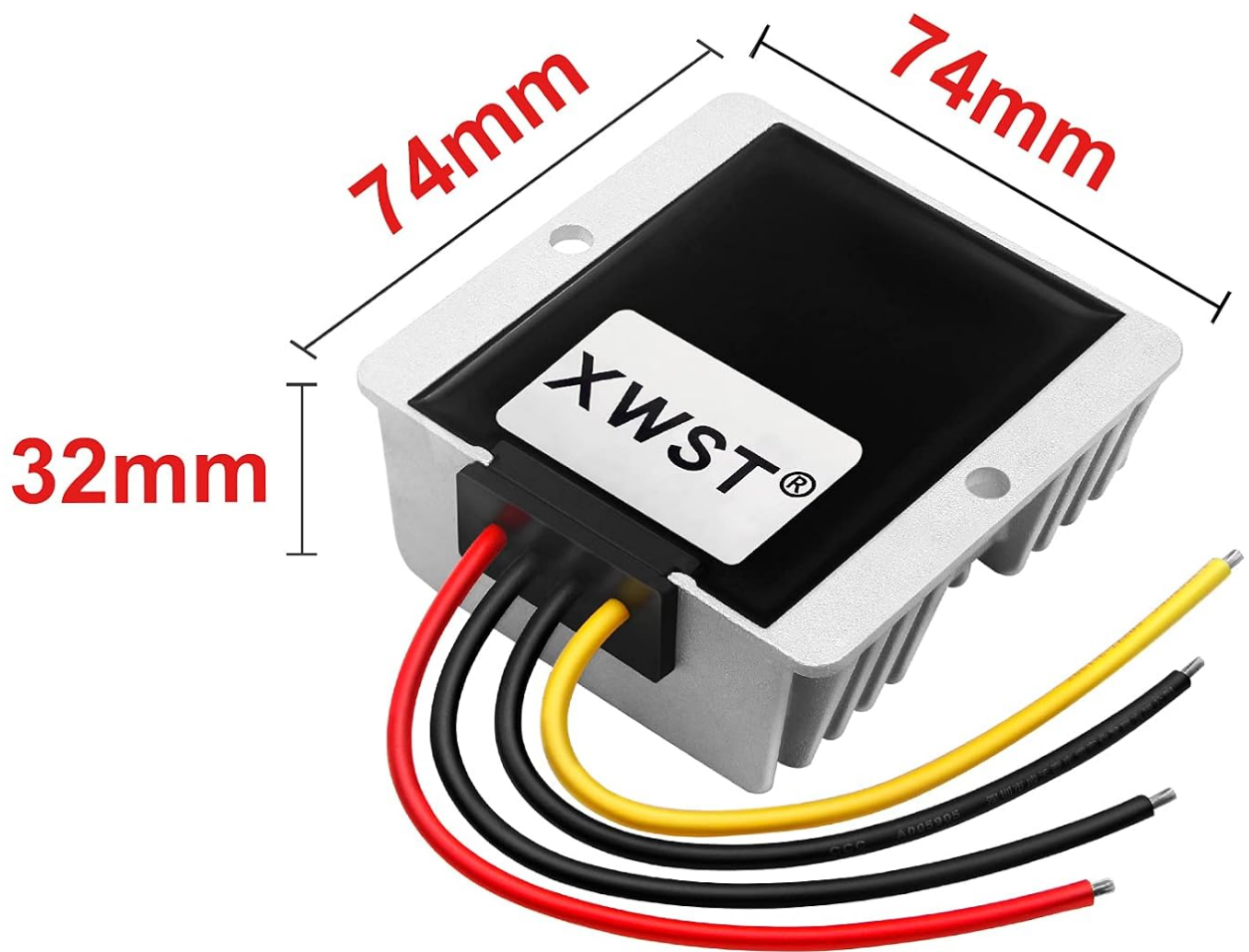


Figure 3: Product dimensions showing length, width, and height in millimeters.

4. SETUP AND INSTALLATION

Follow these steps for proper installation of the converter. Ensure all power sources are disconnected before making any connections.

1. **Identify Wires:** The converter has four wires:

- Red: Input Positive (+)

- Black: Input Negative (-)
- Yellow: Output Positive (+)
- Black: Output Negative (-)

2. **Connect Input:** Connect the **Red** wire to the positive terminal of your DC power supply (9V-36V). Connect the **Black** input wire to the negative terminal of your DC power supply.
3. **Connect Output:** Connect the **Yellow** wire to the positive terminal of your 12V load device. Connect the **Black** output wire to the negative terminal of your 12V load device.
4. **Secure Connections:** Ensure all connections are tight and properly insulated to prevent short circuits.
5. **Mounting:** The converter can be mounted using the screw holes provided on its casing.

Important Note:

- Always leave a margin for the power supply. For example, if your device requires 100W, use a converter rated for 120W or more to ensure stable long-term operation and prevent overheating.
- Verify input and output polarities carefully before applying power. Incorrect polarity can damage the converter and connected devices.

Power converter

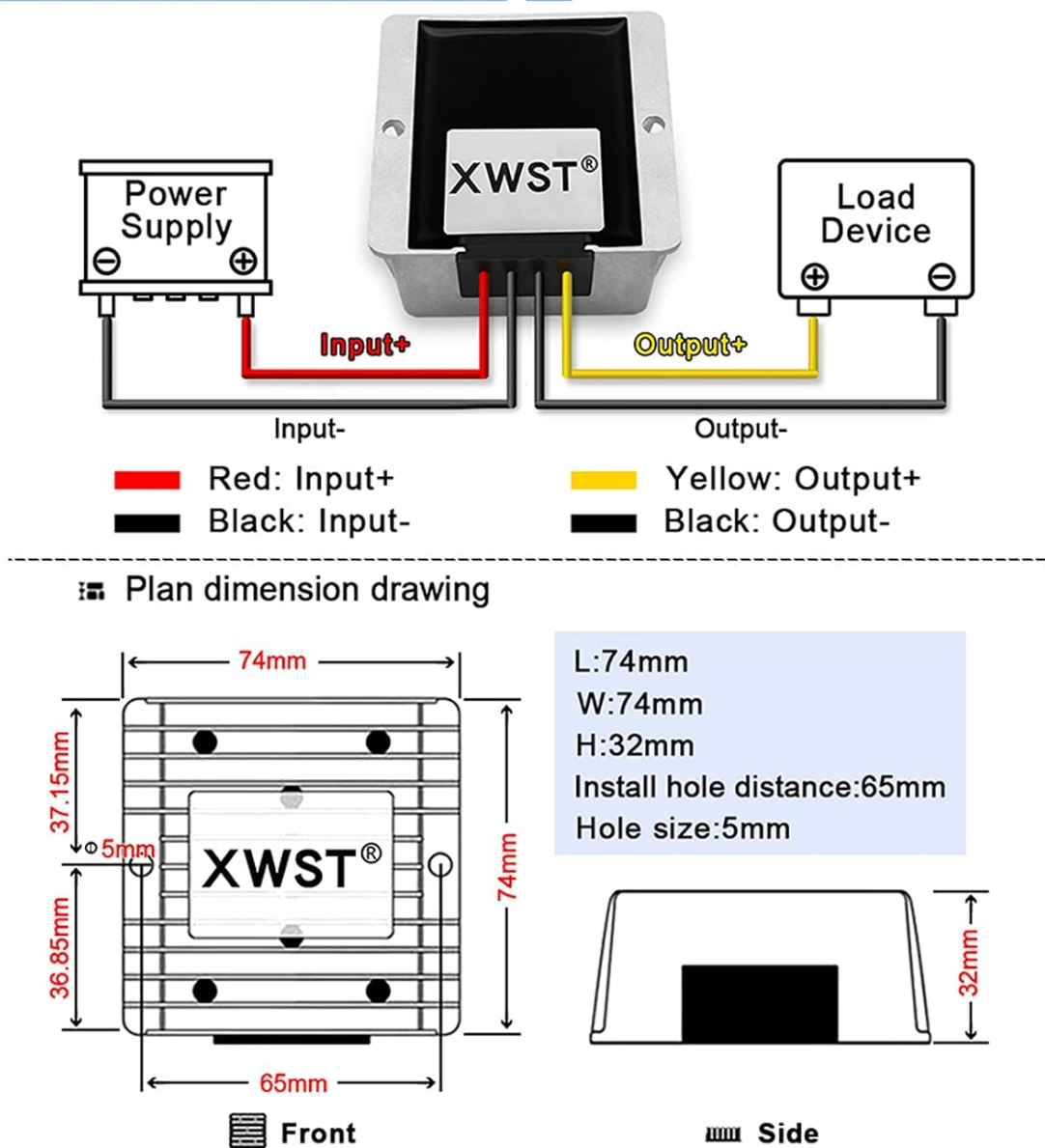


Figure 4: Detailed wiring diagram showing input and output connections.

5. OPERATING INSTRUCTIONS

Once properly installed, the XWST converter operates automatically. It will regulate the input voltage (9V-36V) to a stable 12V output for your connected devices.

- Ensure the input voltage remains within the specified 9V-36V range.
- Do not exceed the maximum output current of 10A or power of 120W to prevent triggering protection mechanisms or damaging the unit.
- The converter is designed for continuous operation within its specified parameters.

6. SAFETY INFORMATION

Adhere to the following safety guidelines to prevent injury or damage to the product and connected equipment:

- Always disconnect power before making or changing any connections.
- Ensure correct polarity for both input and output connections.
- Do not operate the converter beyond its specified input voltage or output current/power limits.
- While the unit is waterproof (IP67), it is not designed for continuous underwater operation or exposure to high-pressure water jets.
- Avoid installing the converter in areas with extreme temperatures or poor ventilation, especially if operating at high loads.
- Do not attempt to open or modify the converter. This will void the warranty and may lead to malfunction or electric shock.

7. MAINTENANCE

The XWST converter is designed for minimal maintenance. Follow these general guidelines:

- Periodically inspect all wiring connections to ensure they remain secure and free from corrosion.
- Keep the exterior of the converter clean and free from dust or debris. Use a dry, soft cloth for cleaning.
- Avoid exposing the unit to harsh chemicals or abrasive materials.

8. TROUBLESHOOTING

If you encounter issues with your converter, refer to the following troubleshooting steps:

- **No Output Voltage:**
 - Check if the input voltage is within the 9V-36V range.
 - Verify all input and output wiring connections for proper polarity and secure contact.
 - Ensure the load connected does not exceed the converter's 10A/120W rating. Overload protection may have activated.
- **Intermittent Output:**
 - This may indicate that the over-current or over-temperature protection is activating due to excessive load or insufficient heat dissipation. Reduce the load or improve ventilation.
 - Check for fluctuating input voltage.
- **Converter is Hot:**
 - While designed for low heat, continuous operation at maximum load in a confined space can cause heat buildup. Ensure adequate airflow around the unit.
 - Confirm the load is not exceeding the converter's rated capacity.

If the problem persists after following these steps, contact XWST customer support for further assistance.

9. APPLICABLE SCENES

The XWST 9V-36V to 12V Stabilizer Boost Buck Converter is versatile and can be used in a wide array of applications, including but not limited to:

- **Automotive:** Car radios, audio systems, bus/minibus/truck display screens, taxi advertising screens.
- **Industrial:** Integrated wiring for monitoring systems, fire alarming systems.

- **Renewable Energy:** Solar power generation systems.
- **Consumer Electronics:** LCD televisions, LED lighting, interphones, sound boxes, ebikes.
- **Robotics & UAVs:** Powering smart robots and unmanned aerial vehicles.
- **General DC Power:** Any application requiring a stable 12V DC supply from a fluctuating 9V-36V source.

Applicable Scene



Figure 5: Examples of diverse applications for the XWST converter.

10. WARRANTY AND SUPPORT

XWST products are manufactured with quality and reliability in mind. This product typically comes with **1-year limited warranty** from the date of purchase, covering defects in materials and workmanship under normal use.

For warranty claims, technical support, or any questions regarding the product, please contact XWST customer service through your purchase platform or the official XWST website. Please have your purchase details and product model number ready when contacting support.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

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