DEWIN High Voltage Pulse Generator Module B0C59G6DSQ

DEWIN High Voltage Pulse Generator User Manual

Model: B0C59G6DSQ

1. Introduction

This manual provides essential information for the safe and effective use of the DEWIN High Voltage Pulse Generator. This compact and efficient module is designed to output high-voltage current, making it suitable for various applications requiring a high-voltage arc.

Please read this manual thoroughly before installation and operation to ensure proper functionality and safety.

2. Safety Information

WARNING: This device generates high voltage. Improper use can cause severe injury or death. Always exercise extreme caution.

- Do not touch the output wires or arc when the device is powered.
- Ensure all connections are secure and insulated before applying power.
- Operate in a dry environment, away from flammable materials.
- Keep out of reach of children.
- Use appropriate personal protective equipment (PPE) if necessary.
- Do not exceed the maximum input voltage of 12V DC. Over-voltage can damage the module.
- If the module shows signs of damage or overheating, disconnect power immediately.

3. Product Overview and Components

The DEWIN High Voltage Pulse Generator is a compact module designed for generating high voltage. It consists of a main encapsulated body with input and output wiring.

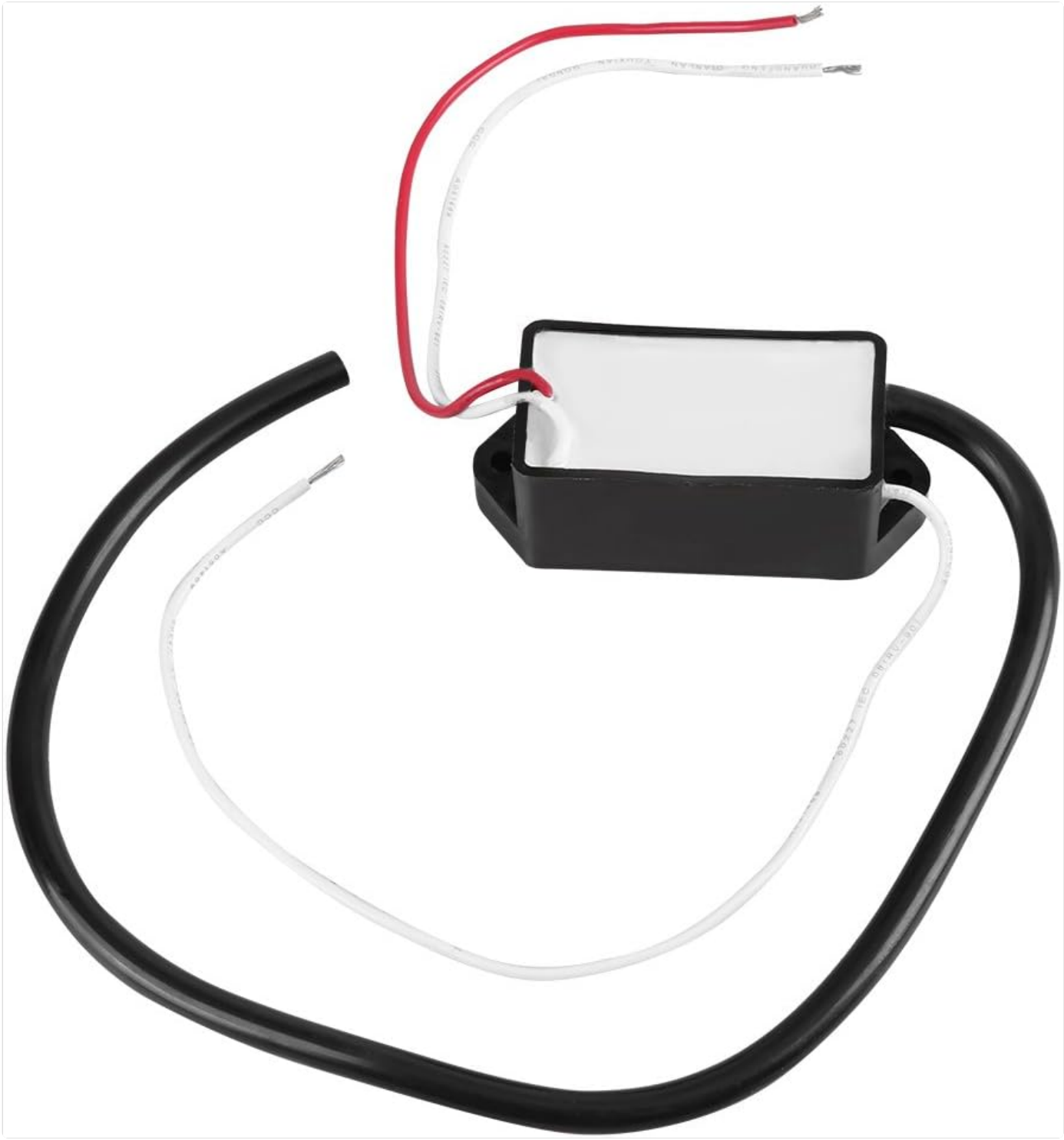


Figure 3.1: DEWIN High Voltage Pulse Generator module showing the main body and connected wires.

The module features clearly identifiable input and output wires:

- **Input Wires:** Red (positive) and White (negative). These are typically thinner and shorter.
- **Output Wires:** One thicker black wire (Live) and one thinner white wire (GND). These are designed to handle the high voltage output.

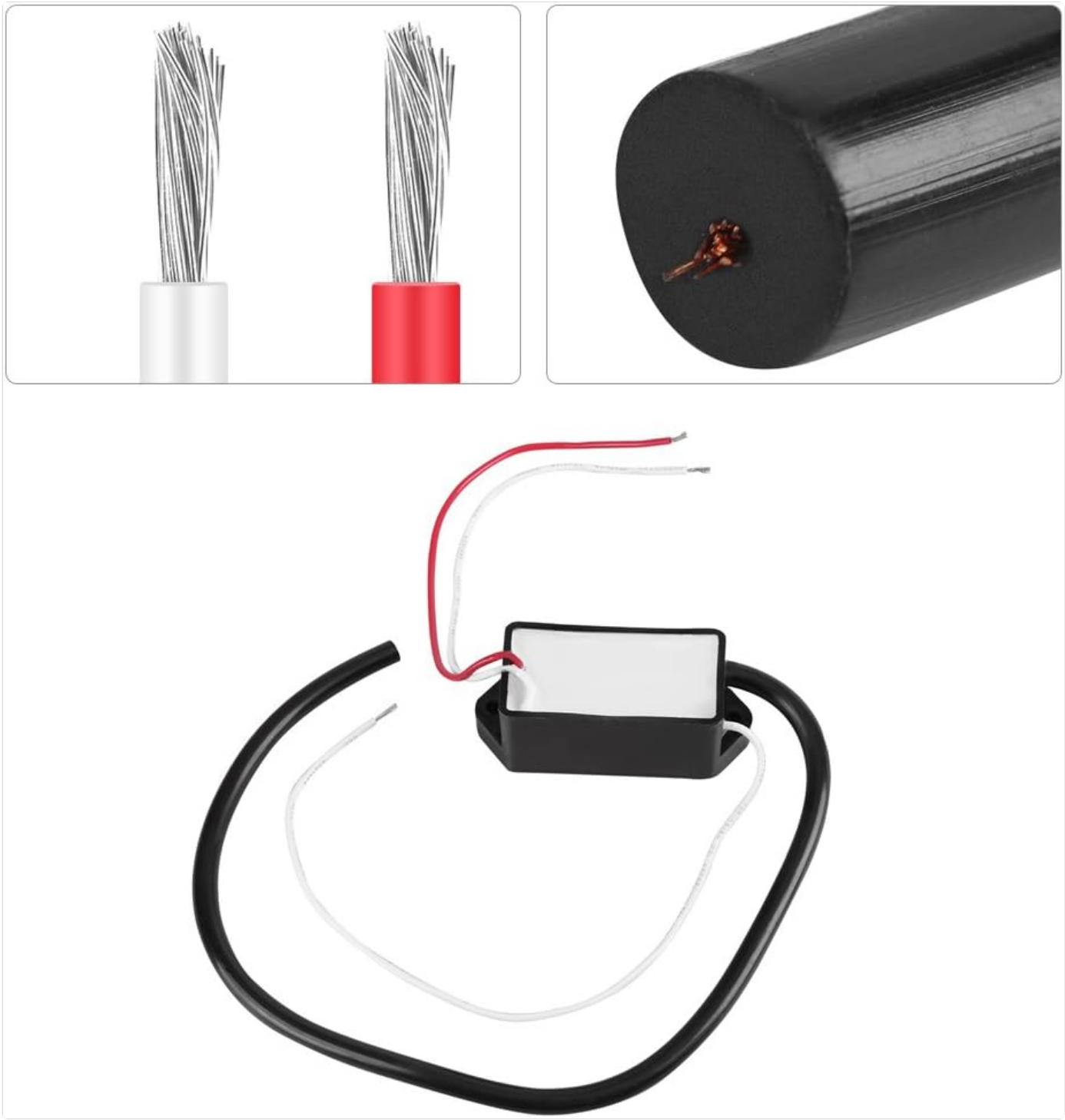


Figure 3.2: Detail of the wire ends, showing the stranded copper conductors for both input and output connections.

4. Specifications

Refer to the table below for detailed technical specifications of the High Voltage Pulse Generator:

Parameter	Value
Input Voltage	3.6 V, 4.8 V, 6 V, 12 V DC
Output Voltage	3 kV ~ 11 kV DC
Arc Distance	10 mm
Working Current	1000 mA

Parameter	Value
Input Wire Diameter	2 ± 0.03 mm
Output Wire Diameter (Live)	6.8 ± 0.03 mm
Output Wire Diameter (GND)	2.2 ± 0.03 mm
Input Wire Length	200 mm
Output Wire Length (GND)	270 mm
Output Wire Length (Live)	380 mm
Input Wire Color	Red (positive), White (negative)
Product Dimensions	3.94 x 3.15 x 1.57 inches
Item Weight	3.87 ounces



Figure 4.1: Visual representation of input and output voltage specifications.



Figure 4.2: Physical dimensions of the module, indicating length and height.

5. Setup and Installation

The setup process for the DEWIN High Voltage Pulse Generator is straightforward. It primarily involves connecting the input power source and preparing the output for your intended application.

5.1. Wiring Connections

1. **Input Power Connection:**
    - Identify the **Red** input wire as the positive (+) terminal.
    - Identify the **White** input wire as the negative (-) terminal.
    - Connect these wires to a DC power source (battery or power supply) within the specified input voltage range (3.6V, 4.8V, 6V, or 12V DC). Ensure correct polarity.
2. **Output High Voltage Connection:**
    - The thicker **Black** wire is the high voltage live output.
    - The thinner **White** wire is the high voltage ground (GND) output.
    - These two wires will generate the arc when power is applied and the distance between them is within the arc distance specification (10mm).
    - Ensure these output wires are properly insulated and secured for your application to prevent accidental contact or short circuits.

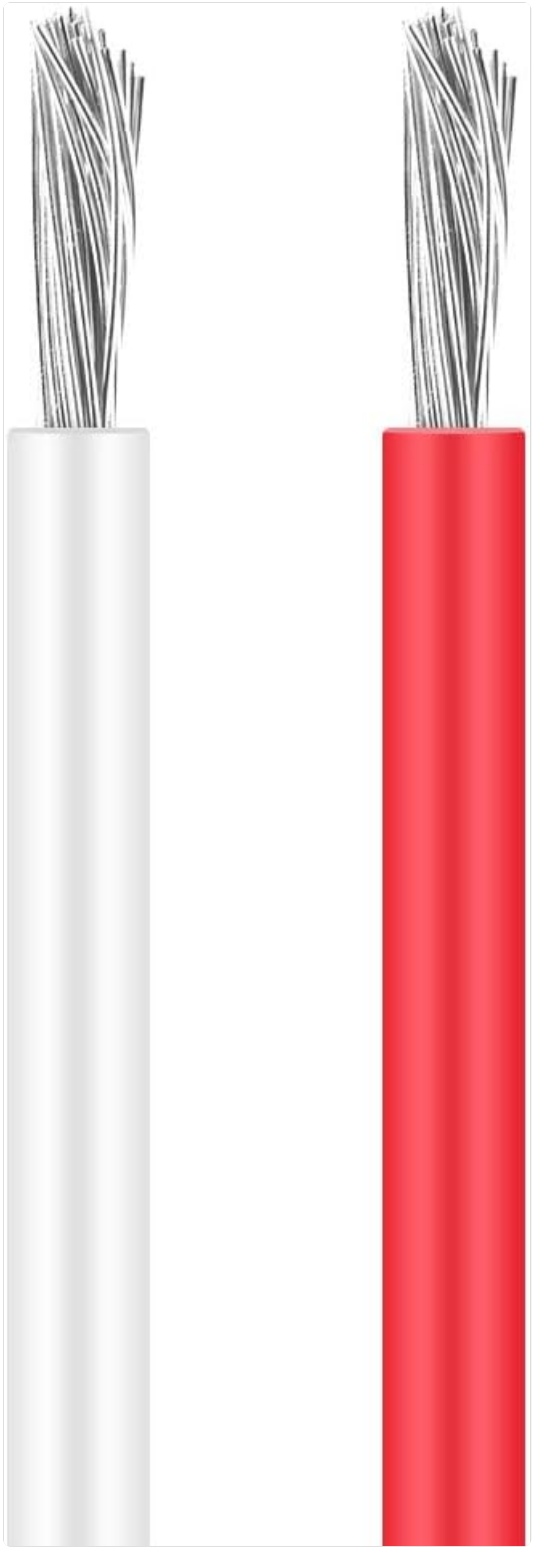


Figure 5.1: Input wires (Red for positive, White for negative).

5.2. Peripheral Circuit Integration

The module's peripheral circuit is very simple. For basic operation, you only need to connect a switch between the power source and the input wires to control the high voltage output. Consider adding a fuse for circuit protection.

6. Operating Instructions

Once the module is correctly wired and secured, operation is simple:

1. **Power On:** Apply the specified DC input voltage to the red (positive) and white (negative) input wires. If a switch is installed, activate the switch.
2. **Arc Generation:** A high-voltage arc will be generated between the live (thick black) and ground (thin white) output

wires if they are positioned within the 10mm arc distance.

3. **Applications:** This module is suitable for various applications such as electric gun salutes, gas stove ignition, and other projects requiring a high-voltage pulse.



Figure 6.1: Example application: igniting a gas stove burner.

CAUTION: Do not operate the module continuously for extended periods without adequate cooling, as this may lead to overheating and damage.

7. Maintenance

The DEWIN High Voltage Pulse Generator is designed for low maintenance. Follow these guidelines to ensure its longevity:

- Keep the module clean and free from dust and debris.
- Store in a dry environment, away from moisture and extreme temperatures.
- Regularly inspect the wires for any signs of damage, fraying, or exposed conductors. Replace or repair if necessary.
- Ensure proper ventilation if integrating into an enclosed system to prevent heat buildup.

8. Troubleshooting

If you encounter issues with your High Voltage Pulse Generator, consider the following troubleshooting steps:

- **No Arc/Weak Arc:**
  - Check the input power supply. Ensure it is providing the correct DC voltage (3.6V, 4.8V, 6V, or 12V) and sufficient current.
  - Verify all input wire connections (Red to positive, White to negative) are secure and have good contact.
  - Ensure the distance between the output wires is within the specified 10mm arc distance.
  - Inspect output wires for any damage or short circuits.
- **Module Overheating:**
  - Reduce the operating time. The module is designed for pulse operation, not continuous duty.
  - Ensure adequate ventilation around the module.
  - Verify the input voltage is not exceeding 12V DC. Higher voltages can stress internal components.
- **Module Not Functioning After Initial Use:**
  - This could indicate internal damage, possibly due to over-voltage, reverse polarity, or prolonged operation.
  - Disconnect power and visually inspect the module for any signs of physical damage or burning.

If the problem persists after following these steps, contact customer support or consider replacing the module.

9. Warranty and Support

Specific warranty information for this product is not provided in this manual. Please refer to the product's packaging or the retailer's website for details regarding warranty coverage and terms.

For technical support or inquiries, please contact DEWIN customer service through the platform where the product was purchased or refer to the manufacturer's official contact channels if available.

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