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Walfront Walfrontazndxwpruo

Walfront Miniature DC 3.6-6V to 20KV High Voltage Transformer Boost Step-up Inverter User Manual

Model: Walfrontazndxwpruo

1. INTRODUCTION

This document provides detailed instructions for the safe and effective use of the Walfront Miniature DC 3.6-6V to 20KV High Voltage Transformer Boost Step-up Inverter, Arc Pulse Generator, Power Module. This module is designed for small scientific production, high voltage experiments, teaching, and product development, capable of generating a high voltage arc from a low DC input.

Please read this manual thoroughly before operating the device to ensure proper functionality and safety.

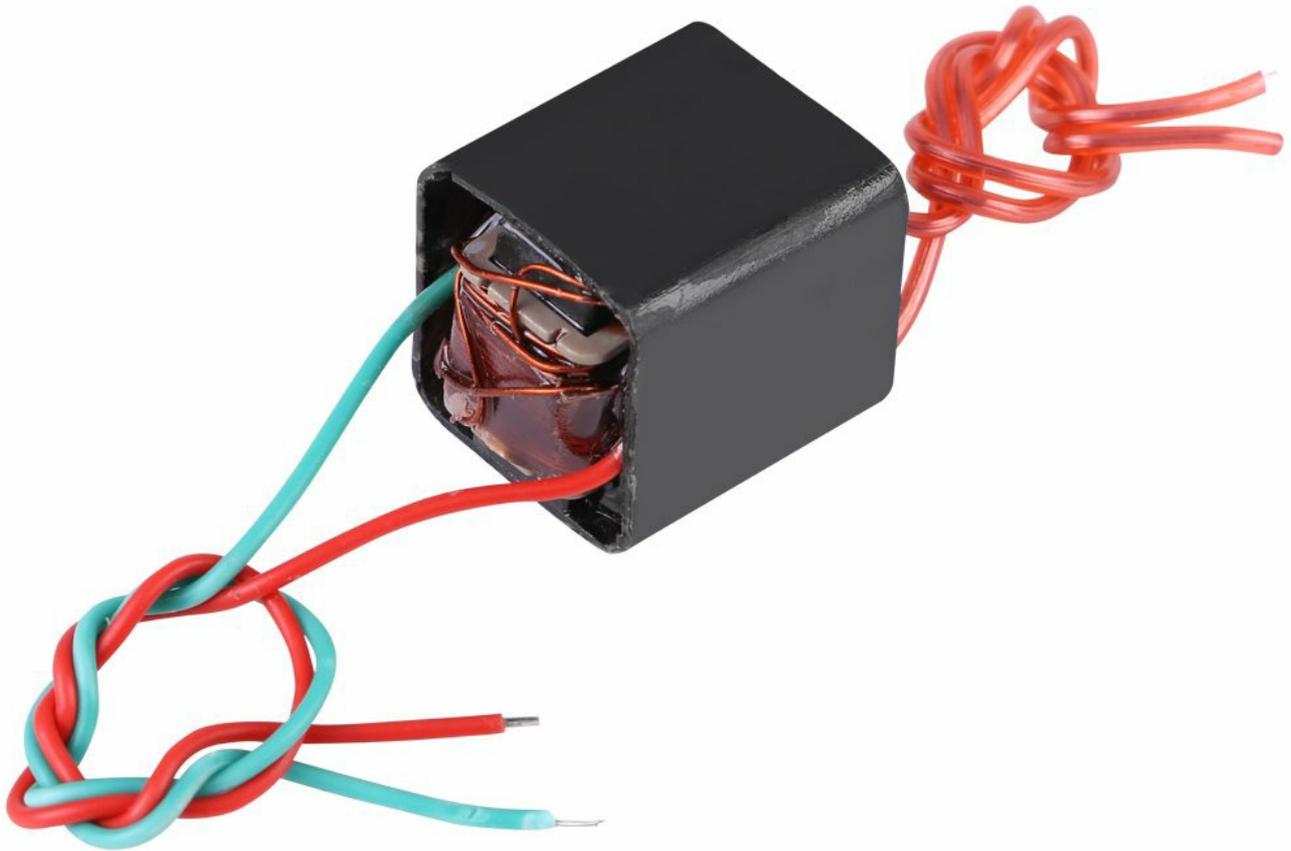


Image 1.1: The Walfront Miniature DC 3.6-6V to 20KV High Voltage Transformer Boost Step-up Inverter module. It features a black rectangular casing with input and output wires visible.

2. SAFETY INFORMATION

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

- Do not touch the high voltage output wires or any conductive material connected to them while the module is powered.
- Ensure proper insulation and isolation of the high voltage output.
- Operate in a dry environment, away from flammable materials.
- Keep out of reach of children and unauthorized personnel.
- Always disconnect power before making any connections or adjustments.
- Use appropriate safety equipment, such as insulated gloves and eye protection, when working with high voltage.

3. PRODUCT OVERVIEW

The Walfront High Voltage Transformer Module is a compact device designed to convert a low DC input voltage into a significantly higher DC output voltage, capable of generating an arc. It is primarily used for experimental and educational purposes.

Components:

- **Input Wires:** Red (positive) and Green (negative) wires for connecting the DC power source.
- **Output Wires:** Two red wires for the high voltage output.
- **Transformer Module:** The main black encapsulated component containing the boost circuitry.

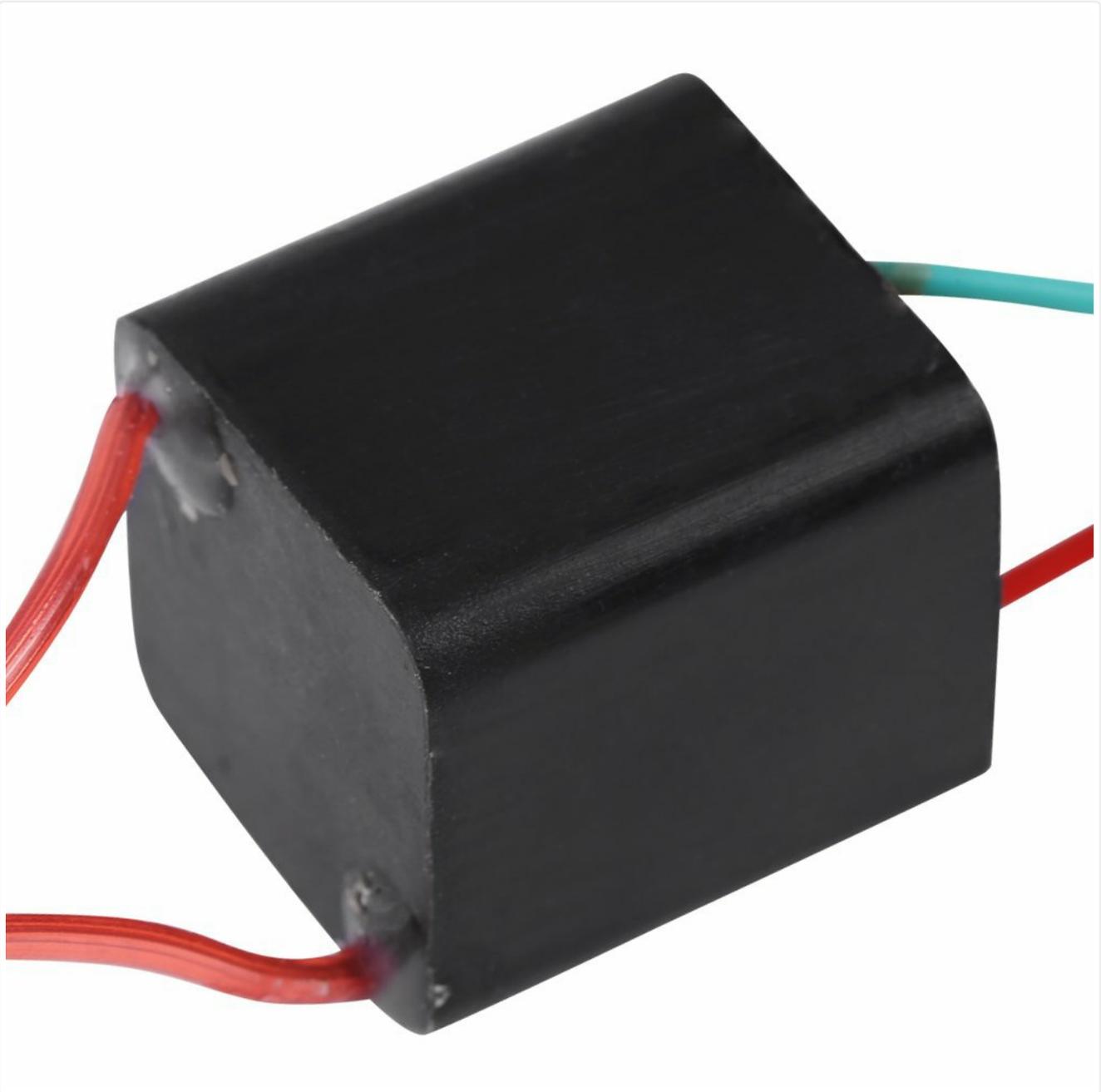
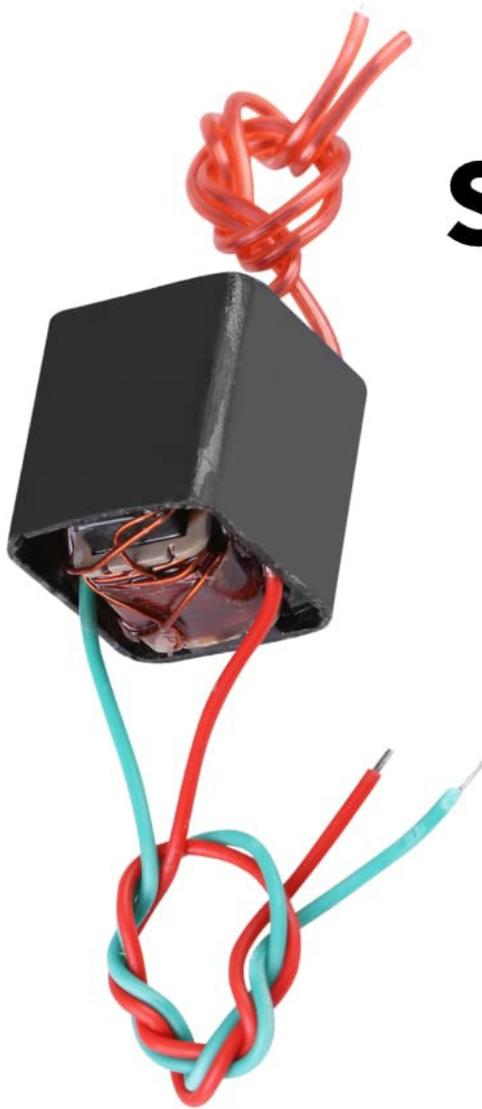


Image 3.1: A close-up view of the Walfront high voltage transformer module, showing its black casing and the entry points for the input and output wires.

4. SPECIFICATIONS

The following table details the technical specifications of the Walfront High Voltage Transformer Module:



Specifications

Input Voltage: DC3.6V-6V

Working Current: 1.5A

Output Voltage: DC20KV

Output Current: 0.05A

Electric Arc Distance: 5mm

Red Wire: Input positive

Green Wire: Input negative

Image 4.1: Visual representation of the module's specifications, including input/output voltage and current, and wire identification.

Feature	Specification
Input Voltage	DC 3.6V - 6V
Working Current	1.5A
Output Voltage	DC 20KV
Output Current	0.05A
Electric Arc Distance	5mm
Input Wire (Positive)	Red
Input Wire (Negative)	Green

Feature	Specification
Output Wires	Two Red Wires
Dimensions (Approx.)	2.5cm x 1.8cm (excluding wires)
Weight	0.02 Kilograms
Model Number	Walfrontazndxwpruo



Image 4.2: The module with approximate dimensions indicated as 2.5cm (length) and 1.8cm (width).

5. SETUP

Follow these steps to correctly set up the high voltage transformer module:

1. **Prepare Power Source:** Obtain a DC power source within the 3.6V to 6V range. Ensure it can supply at least 1.5A of current.

2. **Identify Input Wires:** The module has two input wires: a **red wire** for positive (+) and a **green wire** for negative (-).
3. **Connect Input:** Connect the **red input wire** to the positive terminal of your DC power source and the **green input wire** to the negative terminal. Ensure connections are secure and insulated.
4. **Identify Output Wires:** The module has two **red wires** for high voltage output. These wires are typically thicker or have different insulation than the input wires.
5. **Prepare Output:** Position the two high voltage output wires approximately 5mm apart. Ensure they are isolated from any conductive surfaces or materials.
6. **Safety Check:** Before applying power, double-check all connections for correctness and ensure no bare wires are exposed, especially on the high voltage side.

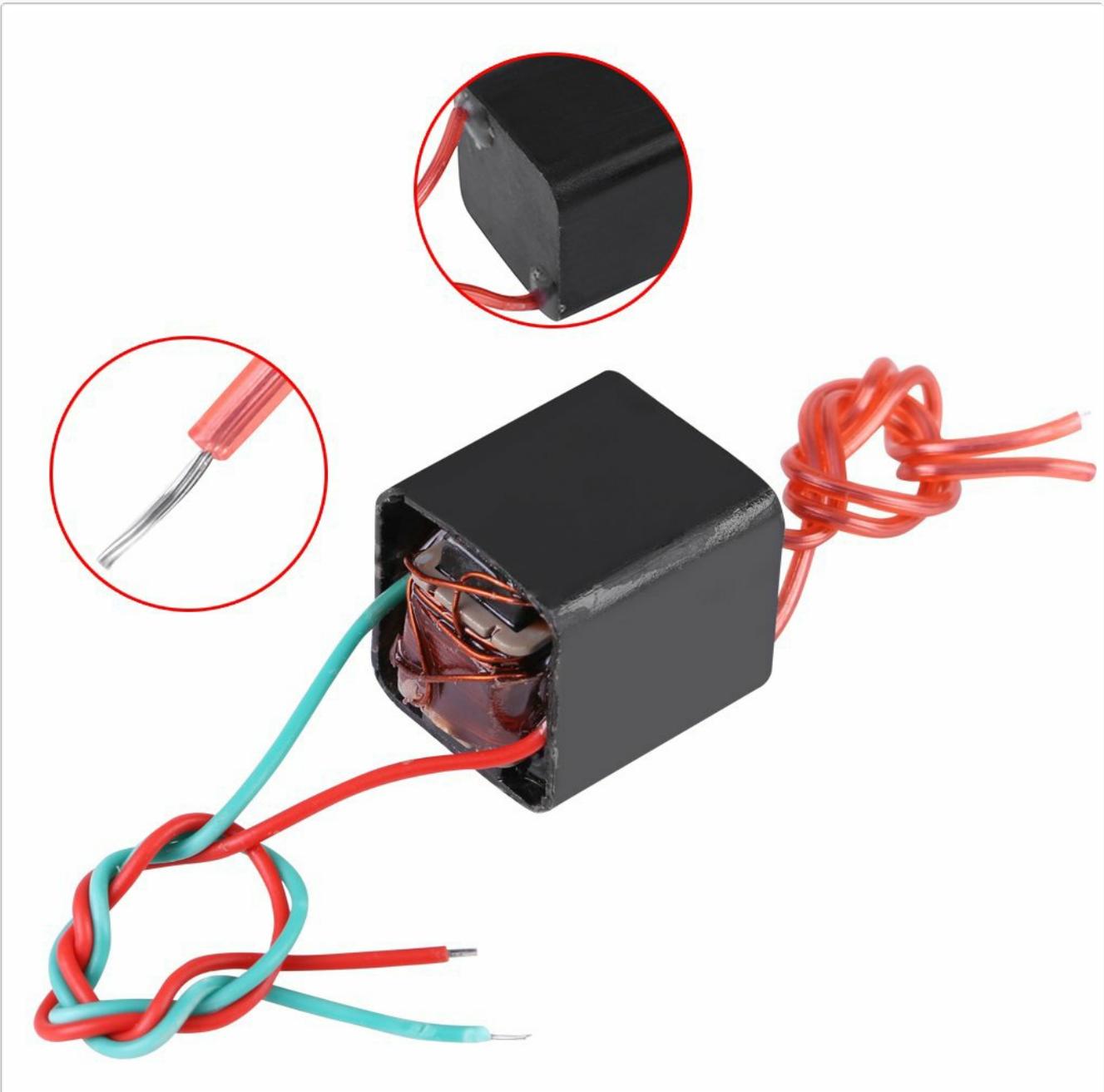


Image 5.1: A close-up view showing the input wires (red and green) and the output wires (two red) of the module, highlighting their distinct colors and insulation.



Image 5.2: A detailed view of the input wires, showing the red wire (positive) and the green wire (negative) with their stripped ends ready for connection.



Image 5.3: A detailed view of the two red output wires, showing their stripped ends. These wires carry the high voltage output.

6. OPERATING INSTRUCTIONS

Once the module is properly set up and all safety precautions are in place, you can proceed with operation:

1. **Apply Power:** Turn on your DC power source. The module will immediately begin to generate high voltage at its output wires.
2. **Observe Arc:** If the output wires are positioned correctly (approximately 5mm apart), a visible electric arc should form between them. The arc can also be generated by bringing one high voltage wire close to a grounded metal object.
3. **Experimentation:** This module is suitable for various high voltage experiments, such as lighting paper with the arc or demonstrating high voltage discharge.
4. **Duration of Use:** Avoid continuous operation for extended periods without adequate cooling, as this may lead to overheating.
5. **Power Off:** When finished, always turn off the DC power source first. Allow a few moments for any residual charge to dissipate before handling the module or its connections.

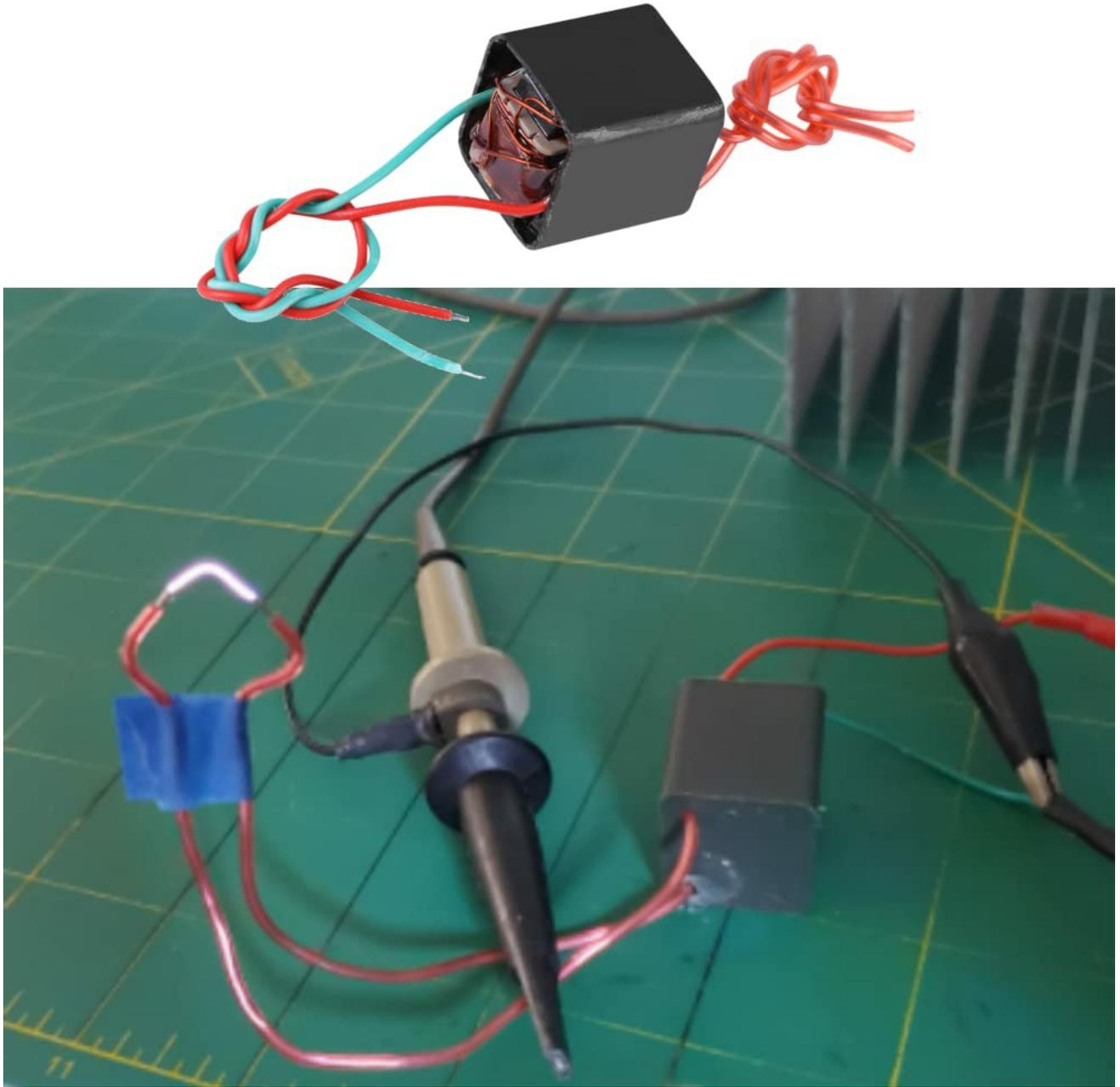


Image 6.1: The Walfront high voltage module in operation, demonstrating the generation of an electric arc between its output terminals, shown in a laboratory or workshop setting.

7. MAINTENANCE

The Walfront High Voltage Transformer Module is designed for durability and requires minimal maintenance. However, adhering to the following guidelines can prolong its lifespan and ensure safe operation:

- **Keep Clean:** Ensure the module is free from dust, dirt, and moisture. Use a dry, soft cloth for cleaning. Do not use liquids.
- **Inspect Wires:** Periodically check the input and output wires for any signs of damage, fraying, or exposed conductors. Replace or repair damaged wires immediately.
- **Storage:** Store the module in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Avoid Physical Damage:** Protect the module from impacts or excessive mechanical stress.

8. TROUBLESHOOTING

If you encounter issues with your Walfront High Voltage Transformer Module, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
No arc or very weak arc	Incorrect input voltage Insufficient input current Loose connections Output wires too far apart Module damage	Verify input voltage is between 3.6V and 6V. Ensure power supply can provide at least 1.5A. Check all input and output connections for security. Adjust output wires to be approximately 5mm apart. If all else fails, the module may be faulty and require replacement.
Module gets excessively hot	Over-voltage input Prolonged continuous operation Short circuit at output	Reduce input voltage to within the specified range. Limit continuous operation time; allow for cooling periods. Inspect output wires for unintended contact or short circuits.
Smoke or burning smell	Severe overload or short circuit Internal component failure	Immediately disconnect power. This indicates a serious issue. The module is likely damaged and should not be used again.

9. SUPPORT

For further assistance or inquiries regarding the Walfront Miniature DC 3.6-6V to 20KV High Voltage Transformer Boost Step-up Inverter, please refer to the Walfront official store or contact your retailer.

You can visit the Walfront Store for more information: [Walfront Store on Amazon](#)