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› Sound Activated LED Lamp Module Instruction Manual

Veemoon 145315HAPXBQUR07J0B

Sound Activated LED Lamp Module Instruction Manual

Brand: Veemoon | Model: 145315HAPXBQUR07J0B

1. INTRODUCTION

This manual provides essential information for the proper use, installation, and maintenance of the Veemoon Sound Activated LED Lamp Module. This module is designed as a DIY component, enabling LEDs to flash in rhythm with ambient sound or music. It is suitable for integration into various electronic projects requiring sound-reactive lighting.

SOUND CONTROL LED LAMP MODUL

The 5 LEDs will flash with the rhythm of music or other sounds; it can be used as light for music dancers.



Image: The Sound Control LED Lamp Module shown in an example application, demonstrating its potential use in a home environment where LEDs flash with sound.

2. PRODUCT OVERVIEW

2.1 Key Features

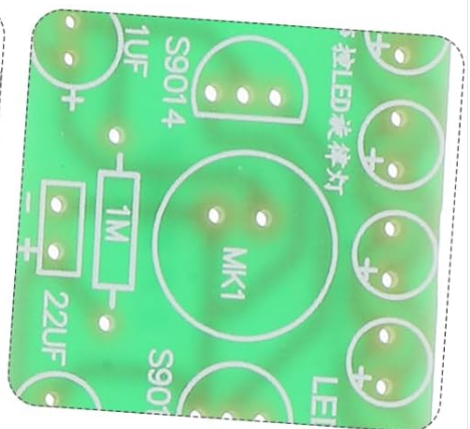
- **Sound-Activated Flashing:** The 5 integrated LEDs flash dynamically with the rhythm of music or other ambient sounds.
- **DIY Component:** Designed as a module for integration into custom electronic projects.
- **Versatile Application:** Can be utilized in various setups, including decorative lighting or as a visual indicator for audio.
- **Compact Design:** Small form factor for easy integration.

2.2 Components and Dimensions

The module consists of a Printed Circuit Board (PCB) made from FR-4 fiberglass, integrating 5 LED lights, a microphone for sound detection, and various electronic components such as resistors, capacitors, and transistors.



Image: A detailed view of the Sound Activated LED Lamp Module, showcasing its compact design and integrated components including the microphone and LEDs.



LEDs, and other electronic parts.

Dimensions:

Length: Approximately 29 mm (1.14 inches)

Width: Approximately 23 mm (0.91 inches)

Height: Approximately 15 mm (0.59 inches)



Image: A visual representation of the module's dimensions, indicating its length and width for integration planning.

3. SETUP AND INSTALLATION

As a DIY module, installation involves integrating the component into a larger electronic circuit or project. Ensure all connections are secure and correct before applying power.

3.1 Power Connection

1. Identify the positive (+) and negative (-) power input terminals on the module.
2. Connect a stable DC power source within the operating voltage range of **3V to 5V** to these terminals. Ensure correct polarity to prevent damage.
3. *Caution: Exceeding the maximum operating voltage of 5V may permanently damage the module.*

3.2 Integration into Projects

The module can be soldered into a custom PCB or connected via jumper wires for prototyping. Consider the placement of the integrated microphone to ensure optimal sound detection for the desired effect.

DIY BREATHE LIGHT PARTS

Material: PCB, FR-4 A fiberglass board



Image: An example of an electronic module being installed into a lighting fixture, illustrating a potential application for the sound-activated LED module.

4. OPERATING INSTRUCTIONS

Once properly connected to a 3V-5V DC power source, the module will automatically begin to operate. The integrated microphone detects ambient sounds, and the 5 LEDs will flash in synchronization with the detected sound's rhythm and intensity.

- Ensure the module is placed in an environment where it can adequately pick up the desired sound source (e.g., near speakers for music, or in a room for general ambient sound).
- The intensity and pattern of the LED flashing will vary based on the characteristics of the sound input.

5. MAINTENANCE

The Sound Activated LED Lamp Module is designed for durability and requires minimal maintenance. Follow these guidelines to ensure its longevity:

- **Keep Dry:** Protect the module from moisture and liquids, as water can cause short circuits and damage electronic components.
- **Clean Gently:** If cleaning is necessary, use a soft, dry cloth. Avoid using harsh chemicals or abrasive materials.
- **Handle with Care:** Avoid dropping the module or subjecting it to strong impacts, which can damage the PCB or soldered components.
- **Environmental Conditions:** Operate and store the module within typical room temperatures. Extreme temperatures can affect performance and lifespan.

6. TROUBLESHOOTING

If the module is not functioning as expected, refer to the following troubleshooting steps:

Problem	Possible Cause	Solution
LEDs do not light up or flash.	◦ No power or incorrect power connection. ◦ Power voltage is outside 3V-5V range. ◦ Module is damaged.	◦ Verify power supply is connected correctly (positive to positive, negative to negative). ◦ Check power supply voltage is between 3V and 5V DC. ◦ Inspect the module for visible damage. If damaged, replacement may be necessary.
LEDs flash weakly or inconsistently.	◦ Insufficient sound input. ◦ Microphone obstructed or faulty. ◦ Power supply issues (e.g., fluctuating voltage).	◦ Increase the volume of the sound source or move the module closer to it. ◦ Ensure the microphone is clear of obstructions. ◦ Test with a different, stable 3V-5V DC power supply.

7. SPECIFICATIONS

Attribute	Value
Model Number	145315HAPXBQUR07J0B
Operating Voltage	3V - 5V DC
Number of LEDs	5
Dimensions (L x W x H)	29 x 23 x 15 mm (1.14 x 0.91 x 0.59 inches)
Item Weight	0.48 ounces
Material	PCB, FR-4 A Fiberglass Board
Manufacturer	Veemoon

8. SAFETY INFORMATION

Please observe the following safety precautions when handling and installing the module:

- **Electrical Safety:** Always disconnect power before making or changing connections. Work with low voltage DC power sources only (3V-5V).
- **Component Handling:** Electronic components can be sensitive to static electricity. Handle the module by its edges and avoid touching exposed circuitry.

- **Soldering Safety:** If soldering is required, ensure adequate ventilation and use appropriate safety gear (e.g., safety glasses).
- **Children and Pets:** Keep the module and its components out of reach of children and pets to prevent accidental ingestion or injury.

9. WARRANTY AND SUPPORT

This product is manufactured by Veemoon. For specific warranty information or technical support, please refer to the retailer where the product was purchased or contact Veemoon directly through their official channels. Keep your purchase receipt as proof of purchase.

For general inquiries or further assistance, you may visit the [Veemoon Store on Amazon](#).