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## EASYGUARD bm002

# EASYGUARD bm002 Universal Immobilizer Bypass Module User Manual

Model: bm002

## PRODUCT OVERVIEW

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The EASYGUARD bm002 is a universal bypass module designed for vehicles equipped with a chip immobilizer in their factory OEM key fob. This module is essential when installing a remote engine start system or a push-start button, as it allows the vehicle's immobilizer to be bypassed temporarily during the starting process. It ensures compatibility with aftermarket remote start or push-start systems without requiring permanent modification to the vehicle's original immobilizer system.

This module is specifically designed for ignition cylinders with a diameter of less than 33mm to ensure the induction coil can properly fit. An additional factory OEM key with a chip immobilizer is required for installation, which will be placed inside the bypass module.



Figure 1: EASYGUARD bm002 Universal Immobilizer Bypass Module, a compact black box designed to house a vehicle's transponder chip for immobilizer bypass.

## PACKAGE CONTENTS

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- Bypass Module (x1)
- Wiring Diagram (x1)

## IMPORTANT CONSIDERATIONS BEFORE INSTALLATION

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- **Ignition Cylinder Diameter:** Ensure your vehicle's ignition cylinder diameter is less than 33mm. This is crucial for the induction coil to fit correctly around it.
- **Extra Key Requirement:** An additional factory OEM key fob containing a chip immobilizer is required. This key will be placed inside the bypass module. If the key is too large, you may need to carefully remove the PCB (Printed Circuit Board) or just the chip immobilizer from the key to fit it into the module.
- **No Chip Immobilizer:** If your factory OEM key fob does not contain a chip immobilizer, this bypass module is not necessary for your vehicle.
- **Steering Wheel Lock:** When installing this module in conjunction with a push-start button kit, you must release, unlock, or remove the steering wheel lock in your vehicle. Refer to your vehicle's specific manual for instructions on how to disable the steering wheel lock.
- **Professional Installation Recommended:** Due to the complexity of vehicle electrical systems and immobilizer bypass procedures, professional installation by a qualified alarm installer or trained technician is highly recommended.
- **Standalone Use:** This product cannot be used as a standalone device. It is designed to work in conjunction with a remote engine start or push-start button system.

## SETUP AND INSTALLATION

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The installation of the bm002 bypass module involves integrating it with your vehicle's existing immobilizer system and the

new remote start or push-start system. Careful attention to the wiring diagram and proper placement of the key/chip is essential.

### Step 1: Prepare the Key/Chip

Obtain an extra factory OEM key fob that contains a chip immobilizer. If the physical key is too large to fit inside the bypass module, carefully extract the PCB or the chip immobilizer from the key fob. This component will be placed within the bypass module to allow the vehicle's immobilizer to be read.

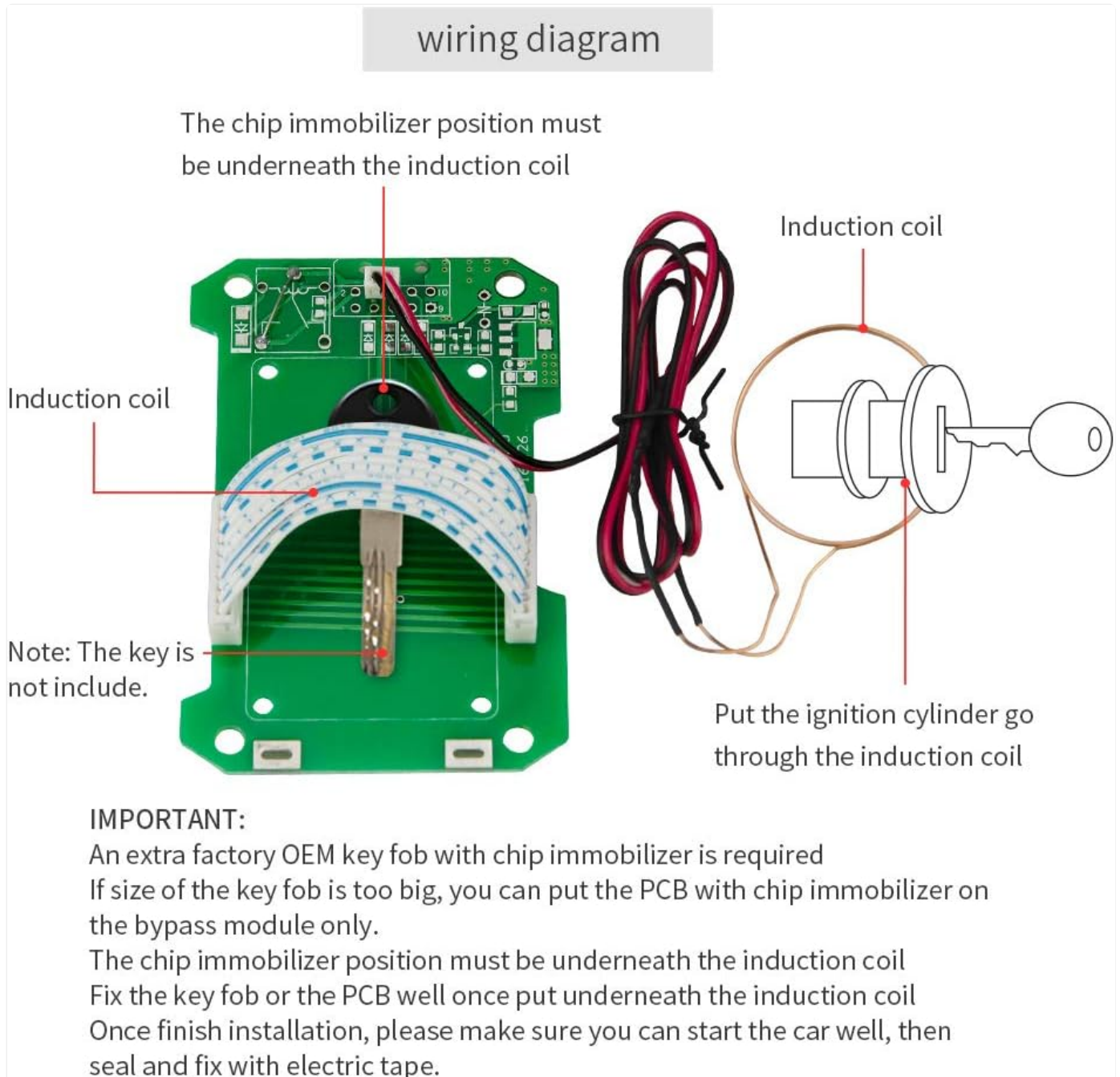


Figure 2: Wiring Diagram and Key Placement. This diagram illustrates how the chip immobilizer must be positioned underneath the induction coil. Note that an extra key is required for this process, but the key itself is not included with the module. If the key is too big, you can take out the key PCB or chip immobilizer to put it in the module.

### Step 2: Place the Key/Chip in the Module

Insert the prepared key or chip immobilizer into the designated area within the bypass module. Ensure the chip immobilizer is positioned directly underneath the induction coil of the bypass module. This precise placement is critical for the module to successfully read the immobilizer code.

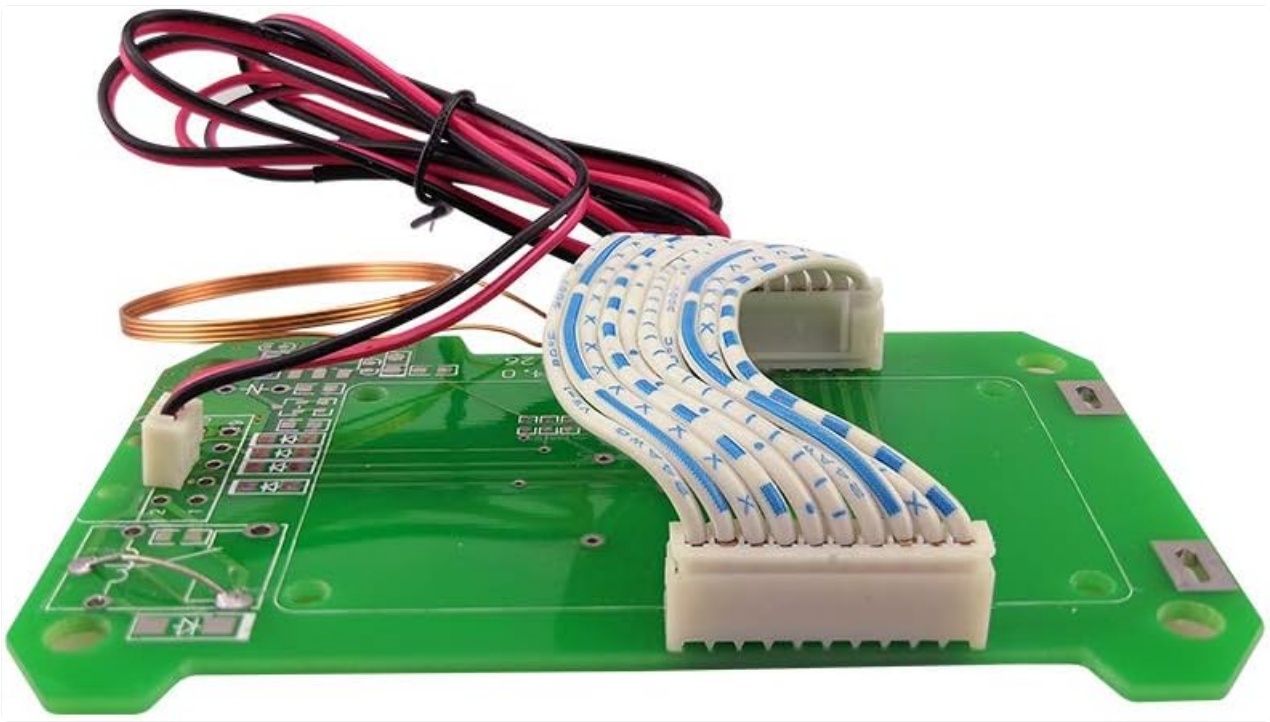


Figure 3: Internal view of the bypass module's circuit board, showing the main PCB with a flexible ribbon cable connector.



Figure 4: The bypass module's circuit board with the induction coil connected, illustrating the complete internal assembly where the key/chip will be placed.

### **Step 3: Secure the Key/Chip**

Once the key fob or PCB is correctly positioned underneath the induction coil, secure it firmly. You may use electrical tape or other non-conductive adhesive to ensure it does not shift during vehicle operation. This prevents intermittent issues with the immobilizer bypass.

### **Step 4: Connect the Induction Coil to the Ignition Cylinder**

The induction coil from the bypass module needs to be placed around your vehicle's ignition cylinder. Ensure the ignition cylinder's diameter is less than 33mm for proper fitment of the coil. The coil reads the immobilizer signal from the key/chip inside the bypass module and transmits it to the vehicle's immobilizer system.

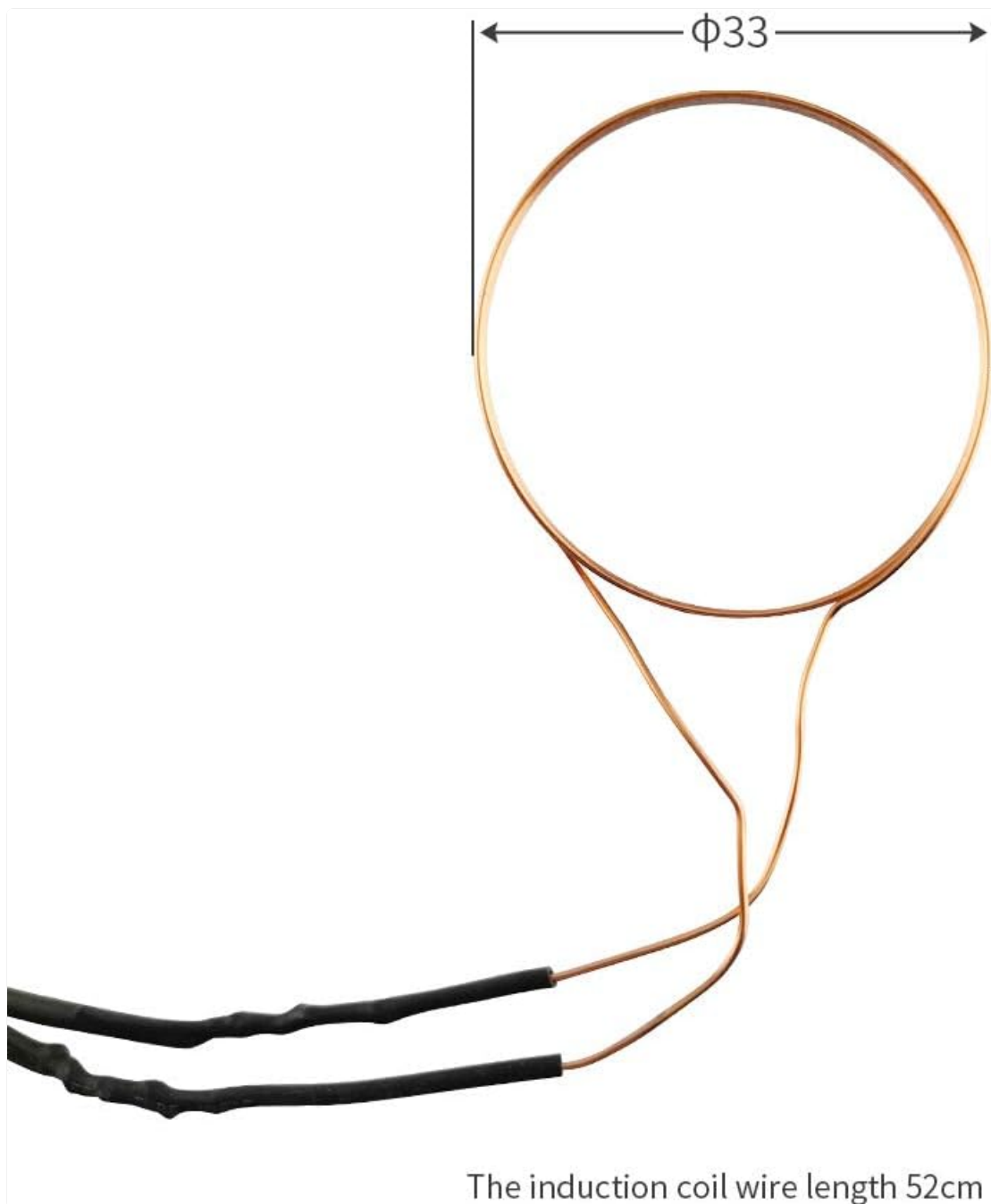


Figure 5: The induction coil, showing its approximate diameter of 33mm and a wire length of 52cm. This coil is designed to be wrapped around the vehicle's ignition cylinder.

### Step 5: Wiring the Bypass Module

Connect the bypass module according to the provided wiring diagram. This typically involves connecting to the vehicle's power, ground, and the remote start/push-start system's immobilizer bypass trigger wire. Always double-check connections to prevent damage to the module or vehicle electronics.

*Note: The specific wiring connections will be detailed in the separate wiring diagram included with your product. Always refer to that diagram for precise instructions.*

### Step 6: Test the Installation

After completing all connections, test the remote start or push-start system to ensure the vehicle starts correctly and the immobilizer is successfully bypassed. If the vehicle does not start, re-check all connections and the placement of the key/chip within the module.

## OPERATING INSTRUCTIONS

The EASYGUARD bm002 bypass module operates automatically in conjunction with your remote engine start or push-start button system. When the remote start or push-start sequence is initiated, the bypass module temporarily activates, allowing the vehicle's immobilizer to recognize the embedded key/chip and permit engine ignition.

- **Remote Start:** When you activate your remote start system, the bm002 module will momentarily bypass the immobilizer, allowing the engine to start.
- **Push-Start Button:** If using a push-start button, the module will engage during the engine start sequence to allow ignition.

The module is designed to be passive and only activate when needed, ensuring the vehicle's security system remains active when the remote start or push-start system is not in use.

## MAINTENANCE

The EASYGUARD bm002 bypass module is designed for maintenance-free operation. Once properly installed and secured, no regular maintenance is required.

- **Periodic Checks:** It is advisable to periodically check the physical connections and the security of the key/chip inside the module, especially if you experience intermittent starting issues.
- **Cleanliness:** Keep the module free from excessive dust or moisture.

## TROUBLESHOOTING

If you encounter issues after installing the EASYGUARD bm002 bypass module, consider the following troubleshooting steps:

Problem	Possible Cause	Solution
Vehicle does not start with remote start/push-start.	Incorrect key/chip placement within the module. Loose or incorrect wiring connections. Induction coil not properly placed around ignition cylinder. Vehicle's immobilizer system not compatible or faulty.	Ensure the chip immobilizer is directly underneath the induction coil inside the module. Verify all wiring connections against the provided diagram. Confirm the induction coil is securely wrapped around the ignition cylinder and the diameter is less than 33mm. Consult a professional installer to diagnose vehicle immobilizer issues.
Intermittent starting issues.	Key/chip shifting inside the module. Loose connections.	Secure the key/chip firmly with electrical tape or adhesive. Re-check and secure all wiring connections.
Steering wheel remains locked.	Steering wheel lock not properly disabled/removed.	Refer to your vehicle's manual for instructions on disabling the steering wheel lock. This is a critical step for push-start installations.

If problems persist, it is highly recommended to seek assistance from a professional automotive electronics installer.

## SPECIFICATIONS

Feature	Detail
Model Number	bm002
Compatibility	Universal, for vehicles with chip immobilizer in factory OEM key fob.
Ignition Cylinder Requirement	Diameter less than 33mm for induction coil fitment.
Key Requirement	Requires one extra factory OEM key fob with chip immobilizer (or just the chip/PCB).
Dimensions (Module PCB)	Approx. 90mm x 58.8mm
Dimensions (Packaged)	Approx. 6.89 x 4.88 x 1.77 inches
Weight (Packaged)	Approx. 2.39 ounces
Manufacturer	ieasyguard.com

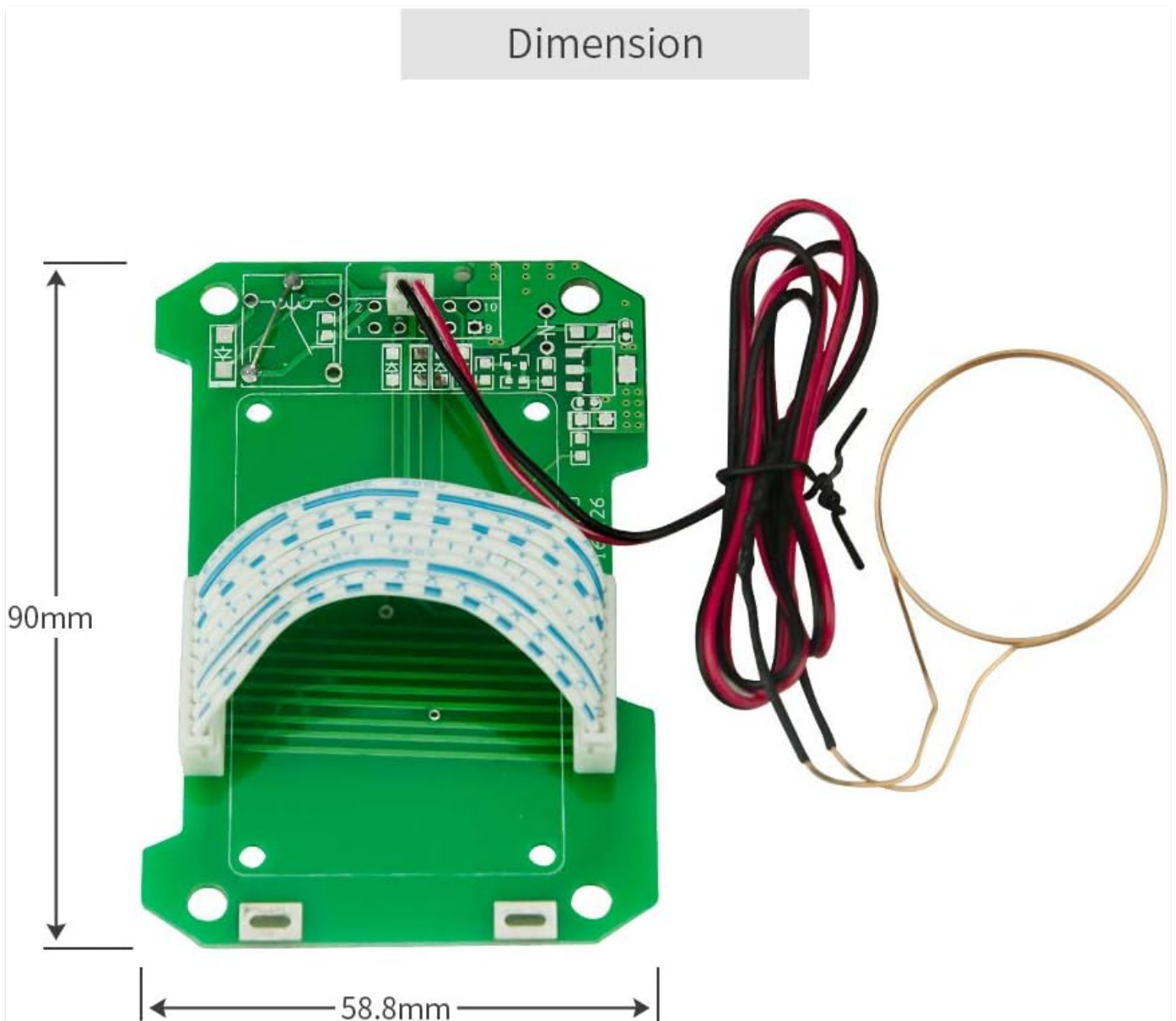


Figure 6: Dimensions of the bypass module's circuit board, measuring approximately 90mm in length and 58.8mm in width.

## WARRANTY AND SUPPORT

For warranty information and technical support regarding your EASYGUARD bm002 bypass module, please contact the manufacturer directly. Details can typically be found on the manufacturer's website or through your point of purchase.

**Manufacturer Website:** [ieasyguard.com](http://ieasyguard.com)

When contacting support, please have your product model number (bm002) and purchase details ready.

