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› **BSTUOKEY** /

› BSTUOKEY SCR02D Mini RFID Proximity Card Reader Instruction Manual

BSTUOKEY SCR02D

BSTUOKEY SCR02D Mini RFID Proximity Card Reader Instruction Manual

Model: SCR02D | Brand: BSTUOKEY

[Product Overview](#)

[Specifications](#)

[Installation](#)

[Operation](#)

[Maintenance](#)

[Troubleshooting](#)

1. PRODUCT OVERVIEW

The BSTUOKEY SCR02D is a compact, waterproof Mini RFID Proximity Card Reader designed for integration into access control systems. It supports 125Khz EM-ID cards and provides Wiegand 26/34 output. This reader functions solely for reading cards and requires connection to an external access control panel or door access controller, as it does not have an internal relay or user capacity.

- **Material:** ABS shell for durability.
- **Installation:** Designed for hidden installation.
- **Indicators:** Features an LED working light display.
- **Size:** Mini size, approximately 2cm x 2cm x 2.5cm.
- **Waterproof Rating:** IP68 waterproof.
- **Card Support:** 125Khz EM-ID cards only (does not support HID, Cobra, APCiK, etc.).
- **Output:** Supports Wiegand 26-Bit and Wiegand 34-Bit.
- **Feedback:** Built-in LED (double color) and loud speaker (buzzer).

IP68 Waterproof

Mini Size



Wiegand 26/34 Output



Figure 1: Front view of the BSTUOKEY SCR02D Mini RFID Proximity Card Reader, showing its compact design and card icon.



Figure 2: The compact dimensions of the RFID reader, measuring approximately 2.5cm in diameter and 2cm in depth.

2. TECHNICAL SPECIFICATIONS

Feature	Specification
Operating Voltage	DC 12V
Consumed Current	0-100mA
Supported Cards	TK4001, EM4100/M1 (125Khz EM-ID cards)
Read Range	0mm-100mm (up to 8cm, dependent on card and environment)
Reader Interval	Less than 0.5S
Output Format	Wiegand 26 / Wiegand 34 (user selectable)
Transmission Distance	WG26/34 standard
Dimensions	25mm x 25mm x 20mm (0.98 x 0.98 x 0.79 inches)
Waterproof Grade	IP68
Item Weight	0.96 ounces

3. INSTALLATION GUIDE

The SCR02D Mini RFID Proximity Card Reader is designed for hidden installation and must be connected to an access control panel or door access controller. It cannot function as a standalone unit.

3.1 Wiring Diagram and Connections

Refer to the wiring diagram below for proper connection of the card reader to your access control system. Ensure all connections are secure and correctly matched to prevent damage to the device or system.

Access to multi-door controller

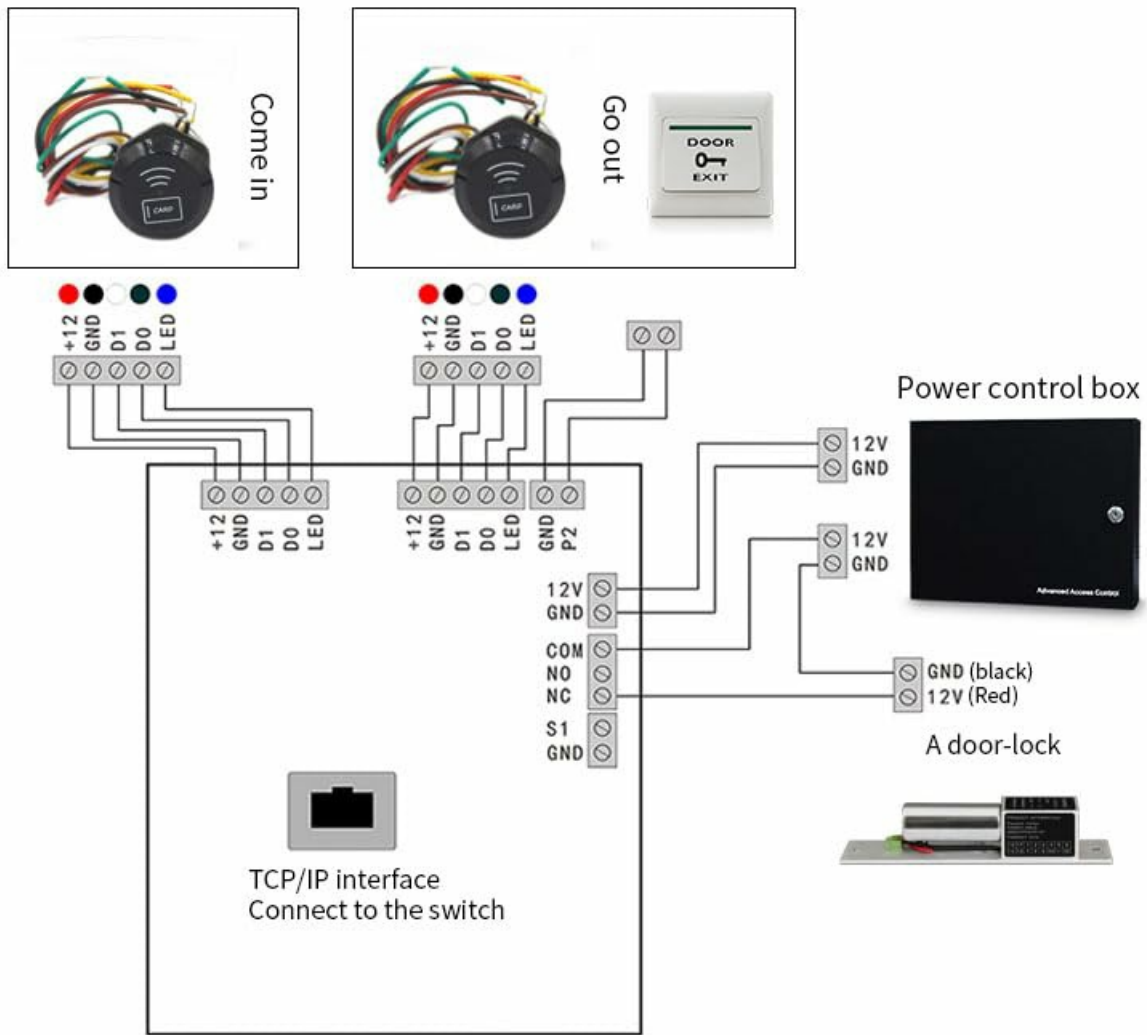


Figure 3: Line sequence chart showing wire colors and their corresponding functions for the RFID reader.

Wire Color	Function
Red	+12V (Power Input)
Black	GND (Ground)
White	DATA1 (Wiegand Data 1)
Green	DATA0 (Wiegand Data 0)
Yellow	LED Control
Brown	Wiegand 26/34 Selection

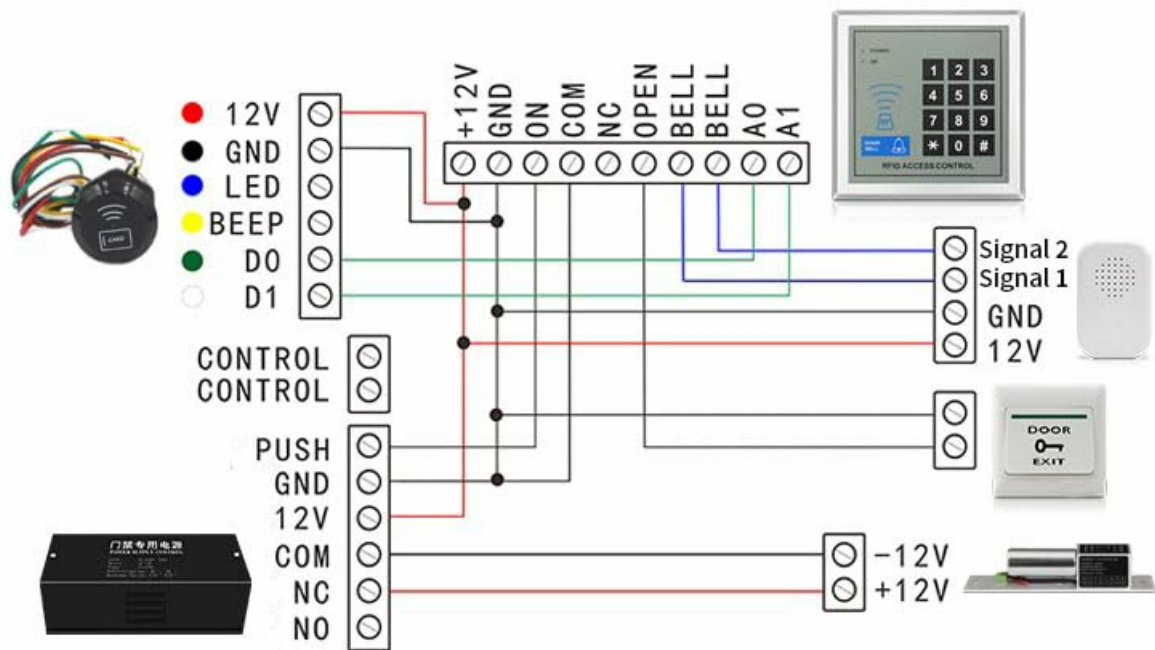
Note: The brown wire is used to select the Wiegand output format. Consult your access control panel's documentation for specific Wiegand input requirements.

3.2 Connecting to a Multi-Door Controller

When integrating with a multi-door access control system, connect the reader's wires to the corresponding terminals on the controller. Ensure power is supplied correctly to both the reader and the controller.

Access to access control all-in-one machine

Note: The wiring diagram of some machines is not as shown in the figure below. If you don't understand, please contact customer service.



In order to ensure long-term stable operation, please use 5A power supply

Note: The power controller needs to be connected to 220V, and other accessories can be connected with a network cable

Figure 4: Example wiring for connecting the RFID reader to a multi-door access control panel, including power control box and door lock connections.

3.3 Connecting to an All-in-One Access Control Machine

For all-in-one access control machines, the wiring may vary. Always refer to the specific wiring diagram provided with your access control machine. A 5A power supply is recommended for long-term stable operation. The power controller typically connects to 220V, and other accessories can be connected via a network cable.

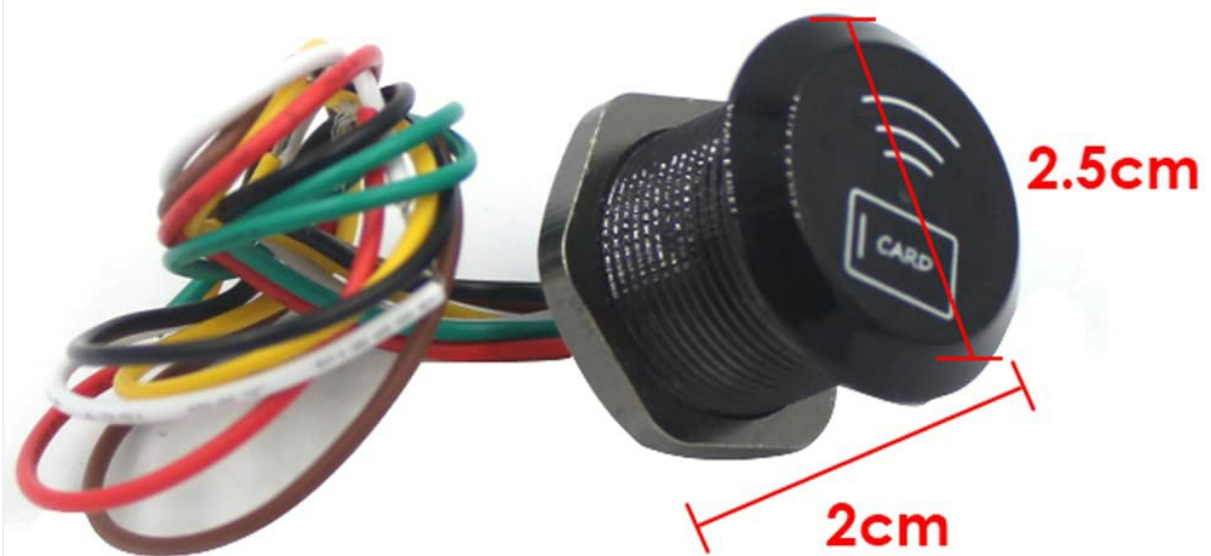


Figure 5: Example wiring for connecting the RFID reader to an all-in-one access control machine, showing connections for power, data, LED, and buzzer.

4. OPERATION

The BSTUOKEY SCR02D reader is designed for simple operation, primarily focusing on reading 125Khz EM-ID cards and transmitting the data via Wiegand protocol.

4.1 Card Reading

1. Ensure the reader is properly installed and powered.
2. Present a compatible 125Khz EM-ID card or key fob within the reader's range.
3. The reader's LED indicator will typically change color (e.g., from red to green) and a buzzer sound may be emitted, indicating a successful read.
4. The card data will be transmitted to the connected access control panel via Wiegand 26 or Wiegand 34 output.

The typical read range for a standard EM4100 card is approximately 2cm, with a maximum range of up to 8cm depending on the card type and environmental factors.

4.2 Wiegand Output Selection

The reader supports both Wiegand 26-Bit and Wiegand 34-Bit output formats. The selection is typically made by connecting or disconnecting the brown wire, as indicated in the wiring diagram. Refer to your access control system's requirements to set the correct Wiegand format.

Your browser does not support the video tag.

Video 1: Demonstration of the BSTUOKEY Mini RFID Reader, showing unboxing, Wiegand output, card reading (125kHz), read range, and waterproof testing. This video illustrates the product's features and basic functionality.

5. MAINTENANCE

The BSTUOKEY SCR02D Mini RFID Proximity Card Reader is designed for durability and minimal maintenance.

- **Waterproof Design:** The reader features an IP68 waterproof rating, achieved through a glue filling process, making it suitable for outdoor and harsh environments.
- **Cleaning:** Clean the surface of the reader with a soft, damp cloth. Avoid using abrasive cleaners or solvents that could damage the housing.
- **Inspection:** Periodically inspect the wiring for any signs of wear or damage. Ensure all connections remain secure.



Figure 6: The RFID reader showing its robust construction and wired connections, highlighting its suitability for various installations.

6. TROUBLESHOOTING

If you encounter issues with your BSTUOKEY SCR02D Mini RFID Proximity Card Reader, refer to the following common problems and solutions:

- **Reader not responding to cards:**
 - **Power Check:** Ensure the reader is receiving a stable DC 12V power supply.
 - **Card Compatibility:** Verify that you are using a 125Khz EM-ID card. This reader does not support other card types like HID, Cobra, or APCiK. Some cards marked "EM-ID" may be compatible cards, not true EM-ID, which can cause issues.
 - **Wiring:** Check all wiring connections (Power, GND, DATA0, DATA1, LED) for correctness and secure contact.
 - **Read Range:** Ensure the card is presented within the effective read range (typically within 2-8cm).
- **No data output to access control panel:**
 - **Wiegand Format:** Confirm that the reader's Wiegand output (26-Bit or 34-Bit) matches the input requirements of your access control panel. Adjust using the brown wire if necessary.
 - **Controller Connection:** Ensure the DATA0 and DATA1 wires are correctly connected to the access control panel's Wiegand input terminals.
 - **Panel Functionality:** Verify that the access control panel itself is powered on and functioning correctly.
- **LED not lighting up or incorrect color:**
 - **LED Wire:** Check the connection of the yellow LED control wire.
 - **Power:** Ensure stable power supply.

If problems persist after following these steps, please contact your supplier or a qualified technician for further assistance.

7. SUPPORT AND CONTACT INFORMATION

For technical support, warranty inquiries, or further assistance with your BSTUOKEY SCR02D Mini RFID Proximity Card Reader, please contact the manufacturer or your point of purchase.

- **Manufacturer:** BSTUO
- **Seller:** BSTUO Access Control System
- **Amazon Store:** Visit the BSTUOKEY Store on Amazon

Please have your product model number (SCR02D) and purchase details ready when contacting support.