

# GV-Card Reader

**GV-RKD1352**

*User's Manual*



Before attempting to connect or operate this product, please read these instructions carefully and save this manual for future use.



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**Scan the following QR codes for product warranty and technical support policy:**



[Warranty]



[Technical Support Policy]

## Notice

**Notice for GV-R1352 V2B and GV-R1352 V2C:** This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

### Notice for GV-RKD1352

#### Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**FCC Caution:** To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

## Chapter 3 GV-RKD1352

GV-RKD1352 is a card reader with keypad, designed to read PIN codes and access cards. Featured with Wiegand and RS-485 interfaces, GV-RKD1352 can be connected to any standard access control systems. GV-RKD1352 comes with IP65 rated ingress protection suitable for indoor and outdoor applications.

### 3.1 Packing List



Reader x 1



Quick Start Guide x 1



Plate x 1

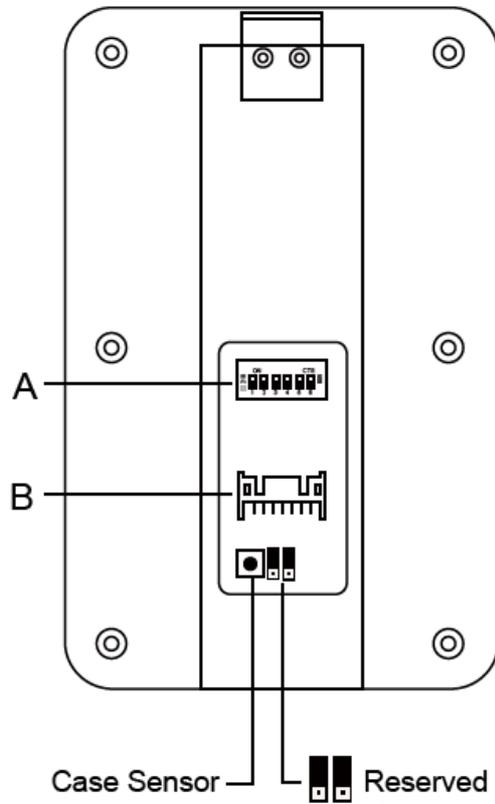


Hex Key wrench x 1  
Screw x 3 Cable x 1

### 3.2 Compatible Products

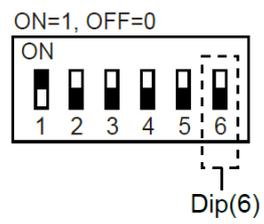
- **GV-ASManager:** V5.3.3 or later
- **GV-AS210 / 2110 / 2120, GV-AS810 / 8110 / 8111, GV-AS410 / 4110 / 4111:** V2.41 or later (only Weigand interface supported)
- **GV-AS1620:** V1.05 or later
- **GV-CS1320:** V3.10 or later

### 3.3 Physical Descriptions



A. To define the reader's ID for a daisy chain connection, set up the switches as listed below.

Node ID	Configuration
0	00000
1	10000
2	01000
3	11000
4	00100
5	10100
6	01100
7	11100
8	00010
9	10010
10	01010
11	11010
12	00110
13	10110
14	01110
15	11110



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## DESfire / GID (GeoVision Identifier) Support

By default, GV-RKD1352 supports Mifare cards. To only support DESFire cards or GID (GeoVision Identifier) formatted cards, turn **ON** for the switch No. 6.

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### Note:

1. GV-DESFire cards contain two types of ID: UID and DES ID. When only DES ID is required, turn on the switch No. 6.
  2. Every time when the switch No. 6 setting is changed, the reader needs to be restarted to apply the setting.
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B. Connect the reader to GV-AS Controller based on the following pin definitions:

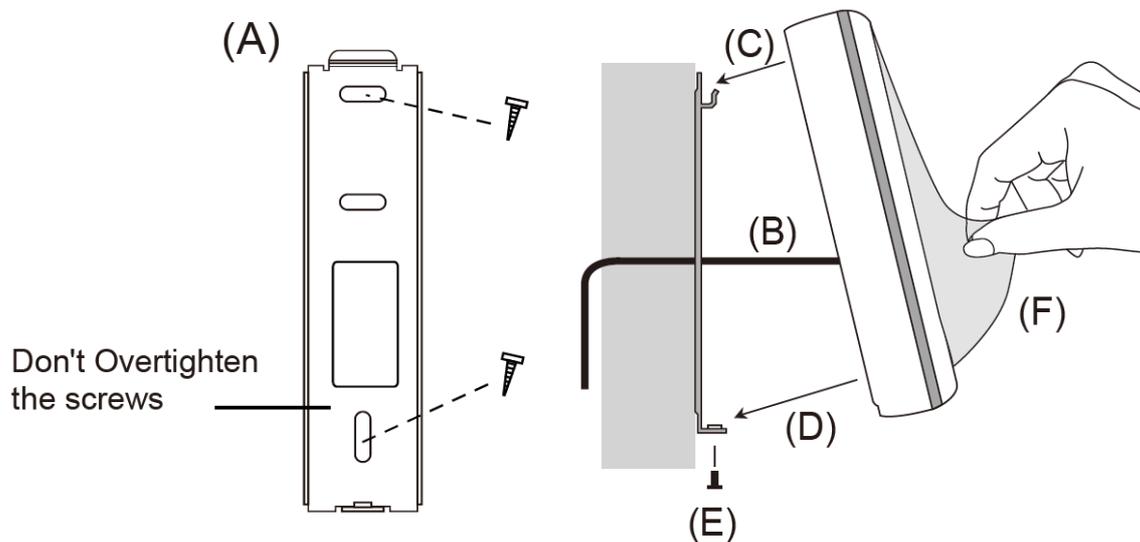
	Pin	Wire Color	Wiegand	RS-485
<b>B</b>	1	Red	DC 12V	DC 12V
	2	Black	Ground	Ground
	3	Yellow	-	RS-485+
	4	Blue	-	RS-485-
	5	Gray	(Reserved)	-
	6	Pink	-	-
	7	Orange & White	Ground	-
	8	Orange	-	-
	9	Brown	Green LED Control	-
	10	Purple	Beep Control	-
	11	White	Case Sensor (To Controller GND)	-
	12	Green	Case Sensor (To Controller Temper Sensor)	-
	13	Red & White	Wiegand Data 0	-
	14	Gray & White	Wiegand Data 1	-

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**Note:** The RS-485 interface supports either RS-485 or OSDP communication but not both at the same time.

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### 3.4 Installation



- (A) Mount the backplate onto the wall or back box (US standard 120 type). Note DO NOT over tighten the backplate screws during installation to prevent distortion.
- (B) Connect the wires in accordance with the wiring notes below.
- (C) Make sure the backplate and the upper cover guide of the reader are aligned.
- (D) Install the upper cover of the reader to the backplate.
- (E) Use the hex key wrench to fasten the screw onto the bottom of the reader.
- (F) Tear off the protective film.

#### Note:

1. Use minimum 22 AWG double-shielded aluminum mylar foil twisted pair cable for the connection between the reader and the controller.
2. In order to reduce long distance noise, the isolated net of transmission cable should connect to both ends of device ground.
3. The distance between two readers should be over 30 cm to prevent radio frequency interference from each other.
4. Mounting the reader around metal could affect read range. Metal of any type around the reader should be avoided while mounting.
5. The distance between the reader and the controller should not exceed 30 meters (98 ft).
6. For optimum read range, use DC Linear power adaptor for the reader's power supply.
7. In order to ensure the reader's normal operation, input voltage should be  $12V \pm 10\%$ .
8. If the reader is installed in an open area or highly humid environment, it is recommended to protect the reader with an external shielding cover.
9. RS-485 communication baud rate is 9600.

### 3.5 Keypad

When accessing an entry using GV-RKD1352, you can enter the door's PIN code on the keypad or present the card and then enter the card's PIN code on the keypad to be granted access. The access mode is defined on GV-ASManager.

1. **0~9 Number Keys:** Press the number keys to enter the PIN code.
2. **# Key:** Press the # key to confirm the PIN code.
3. **\* Key:** Press the \* key to cancel the PIN code.

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**IMPORTANT:** For Card and PIN Code mode, users need to enter the card's PIN code, plus # to confirm the code, and then present the card for access granted.

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### 3.6 LED Status and Beeper

By default, the reader has the following LED status and beeper actions:

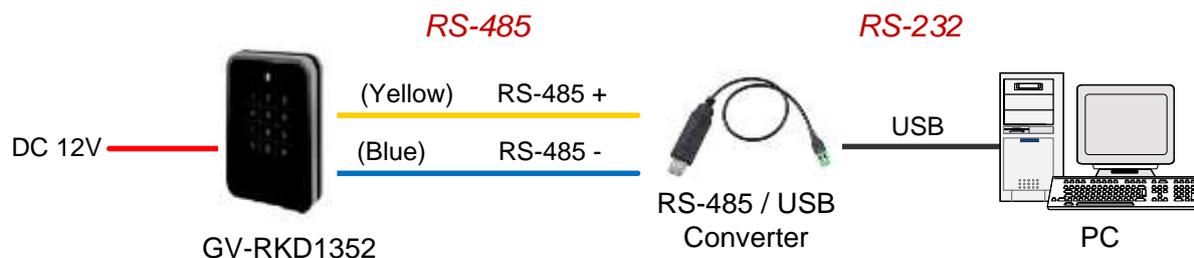
Condition	Wiegand	RS-485
Standby	Constant Red	No light
Access Denied	Beep once (No LED)	Flash Red momentarily + Beep three times
Access Granted	Beep once (No LED)	Flash Green momentarily + Beep twice

For Wiegand connection, the reader comes with external control wires for Green LED and Beeper. You can connect these control wires to GV-AS Controller to change the default settings of the LED and Beeper.

## 3.7 Firmware Upgrade

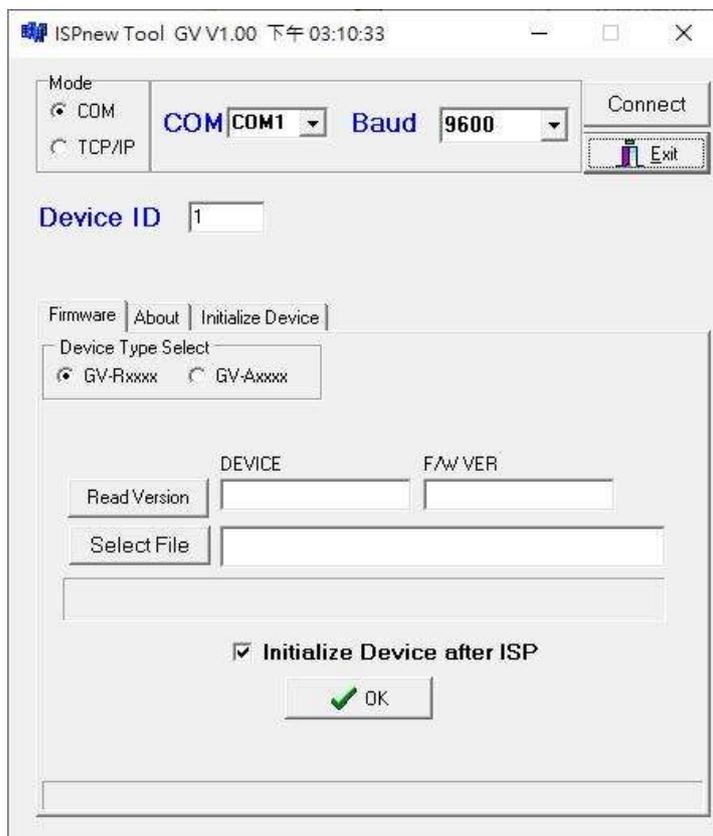
GeoVision will periodically release the updated firmware on the website. The new firmware can be simply loaded into the reader by using the tool provided.

First of all, prepare a RS-485 / USB converter, and connect GV-RKD1352 to a PC as illustrated below.



### To upgrade firmware:

1. Download the **Firmware Upgrade Tool** from our [website](#) to the PC.
2. Run the Tool. This dialog box appears.



3. Select the **COM** port used by the reader in the PC, set the **Baud** rate to **9600**, and click **Connect**.

4. Make sure the **Device ID** is the same as the reader's current ID. If not, revise the ID.
5. Click **Read Version**. The reader's name and firmware version should be displayed.
6. Click **Select File** to locate the firmware file.
7. Click **Initialize Device after ISP**, and then **OK** to start firmware upgrade.
8. After firmware upgrade, the message "Are you sure you want to the device to initialize?" appears. Click **Yes**.
9. After initialized, the reader flashes green once with beeping five times, and then LED turns to red. Click **Exit** to close the tool.

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**Note:**

1. For the **Device ID**, check switch settings at the rear panel of the reader. See [3.3 Physical Descriptions](#).
2. If firmware upgrade fails due to a loose wire connection and the reader flashes green constantly after reconnecting to power, do the following:
  - A. Rewire the reader properly.
  - B. Set the **Baud** rate to **19200** in the ISP New Tool.
  - C. Click **Read Version**. The FW version should display **V0.00**.
  - D. Select the firmware file.
  - E. Click **Initialize Device after ISP**, and then **OK** to start firmware upgrade.

After Step E, GV-RKD1352 has been updated but not initialized yet. To initialize the reader, follow the steps below:

- F. Set the **Baud** rate to **9600** in the ISP New Tool.
  - G. Click **Initialize Device after ISP**, and then **OK** to start initialization.
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## 3.8 Specifications

For details, please see the [datasheet](#).

For the number of readers supported by a variety of GeoVision controllers, see the [compatibility table](#).