

GV-Card Reader

User's Manual



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



© 2016 GeoVision, Inc. All rights reserved.

Under the copyright laws, this manual may not be copied, in whole or in part, without the written consent of GeoVision.

Every effort has been made to ensure that the information in this manual is accurate. GeoVision, Inc. makes no expressed or implied warranty of any kind and assumes no responsibility for errors or omissions. No liability is assumed for incidental or consequential damages arising from the use of the information or products contained herein. Features and specifications are subject to change without notice.

Note: No memory card slot or local storage function for Argentina.

GeoVision, Inc.
9F, No. 246, Sec. 1, Neihu Rd.,
Neihu District, Taipei, Taiwan
Tel: +886-2-8797-8377
Fax: +886-2-8797-8335
<http://www.geovision.com.tw>

Trademarks used in this manual: *GeoVision*, the *GeoVision* logo and GV series products are trademarks of GeoVision, Inc. *Windows* and *Windows XP* are registered trademarks of Microsoft Corporation.

July 2016

Preface

Welcome to the *GV-Card Reader User's Manual*.

This Manual applies to the following GV-Card Readers:

Product	Version
GV-Reader 1251 and 1352 V2	V1.0
GV-RK1352 / R1352 Card Reader	V1.2
GV-DFR1352 (Rev. B)	V1.2

Contents

Preface	i
Contents	ii
Chapter 1 GV-Reader 1251 and 1352 V2	1
1.1 Packing List.....	1
1.2 Physical Descriptions	2
1.2.1 Electric Wire	2
1.2.2 Switch Setting.....	2
1.3 Connecting the Reader to GV-AS Controller	4
1.3.1 Connecting GV-AS Controller through Wiegand Interface	4
1.3.2 Connecting to GV-AS Controller through RS-485 Interface	5
1.3.3 Connecting to GV-System and Third-Party Access Controllers	7
1.4 Specifications	8
1.4.1 The number of GV-Reader 1251 supported by GV-AS Controllers.....	9
1.4.2 The number of GV-Reader 1352 V2 supported by GV-AS Controllers.....	9
Chapter 2 GV-RK1352 / R1352 / DFR1352 Card Reader	10
2.1 Packing List.....	11
2.2 Physical Descriptions	12
2.2.1 Electric Wire	12
2.2.2 Keypad (GV-RK1352 Only)	14
2.2.3 LED Indicator and Beeper	14
2.3 Connecting the Reader to GV-AS Controller	15
2.3.1 Connecting through Wiegand Interface.....	15
2.3.2 Connecting through RS-485 Interface	16
Defining Readers on GV-AS Controller Web Interface	17
2.4 Installing the GV-R/RK/DFR Config AP	19
2.5 Overlaying Card Numbers on GV-System Live View	20
2.5.1 Defining the ID Number and Setting the Reader to Slave	20

2.5.2 Adding the Reader to GV-System.....	22
2.6 Changing the Default Settings of Beeper and LED	23
2.6.1 Setting up Beeper and LED on GV-R/RK/DFR Config AP	23
2.6.2 Wiring the Beeper and LED to the GV-AS Controller.....	25
2.6.3 Configuring the Beeper and LED Settings for Each Door/Gate.....	26
2.7 Setting UID or GID on GV-R/RK/DFR Config AP	27
2.8 Firmware Upgrade.....	29
2.9 Specifications	30
2.9.1 The Number of Readers Supported by GV-AS Controllers	31
2.10 Accessory (GV-RK1352 and GV-R1352 Only).....	32

Chapter 1 GV-Reader 1251 and 1352 V2

The GV-Reader includes transmit-receive antenna and electronics. It has both Wiegand and RS-485 outputs that can be connected to any standard access control panel. The GV-Reader has a bi-color LED indicator, which is controllable by the host system and changes from red to green to indicate access granted. The GV-Reader also has a host-controllable buzzer.

1.1 Packing List

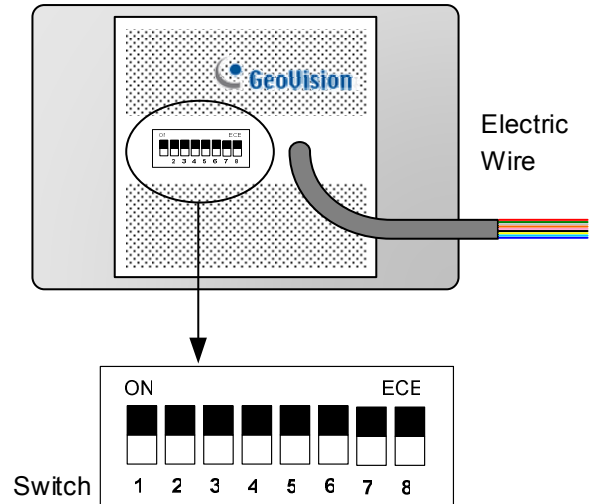
If any of the items are missing or damaged, contact your dealer to arrange a replacement.

1. GV-Reader
2. Bag of screws
3. GV-Reader Software CD
4. GV-Reader Installation Guide
5. Warranty Card

1.2 Physical Descriptions

1.2.1 Electric Wire

Wire Color	Function
Red	DC 7.5 ~ 12 V
Black	GND
Green	Wiegand Data 0
White	Wiegand Data 1
Blue	RS-485 +
Light Blue	RS-485 -
Yellow	Beeper
Orange	Green LED
Light Red	Red LED



1.2.2 Switch Setting

Default settings are all ON.

- SW 1 Beeper Control:** The default mode for the Beeper Control is the internal control. When the setting is “On”, the Reader is sounded after a card is read. When the setting is “Off”, the Beeper is controlled externally. You can use the external beeper control line to activate the beeper.
- SW2-SW3 Green/Red LED Control:** The default mode for the Green/Red LED Control is the internal control. The LED is normally red. When a card is read, the LED flashes green. When the setting is “Off”, the Green/Red LED is controlled externally. The external control lines can then be used to operate the LEDs.
- SW4 Master/Slave:** The switch is used to select the Reader’s communication interface. When the setting is “On”, the Reader is controlled by Wiegand signal. When the setting is “Off”, the Reader is for RS-485 signal.
- SW5-SW7 ID Setting:** Switch 5 to switch 7 is used to set the Reader’s ID during a chain connection.

ID	0	1	2	3	4	5	6	7
SW5	OFF	OFF	OFF	OFF	ON	ON	ON	ON
SW6	OFF	OFF	ON	ON	OFF	OFF	ON	ON
SW7	OFF	ON	OFF	ON	OFF	ON	OFF	ON

- **SW8 RS-485 Terminal Resistor:** When the setting is “On,” a 120-ohm resistor is connected between RS-485+ and RS-485-. This setting is used in the last device when multiple RS-485 devices are connected together.

Note: After changing the dip switch settings, the unit must be reset by powering down then up again before the new switch setting will take effect.

1.3 Connecting the Reader to GV-AS Controller

The GV-Reader is compatible with any standard access controllers. The following diagrams illustrate how to connect the GV-Reader to GV-AS Controller through Wiegand interface or RS-485 interface, and how to connect the GV-Reader to third-party access controllers and GV-System.

After you wire the connection between the GV-Reader and the access controller, ensure the related switch setting on the GV-Reader is configured correctly.

Note: Each reader consumes 60 mA of power. The total power consumption of the output devices and readers connected to the GV-AS Controller must be under **3A** (for GV-AS210 / 2110 / 2120), **3.5A** (for GV-AS410 / 4110) or **5A** (for GV-AS810 / 8110). Connect an external power supply if the power supplied from GV-AS Controller is insufficient.

1.3.1 Connecting GV-AS Controller through Wiegand Interface

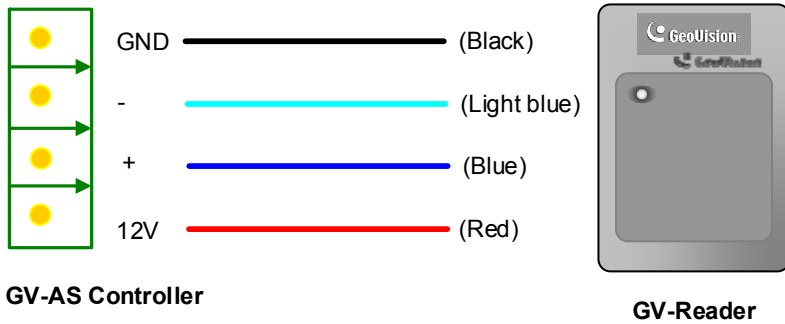


- Switch Setting for Wiegand Connection

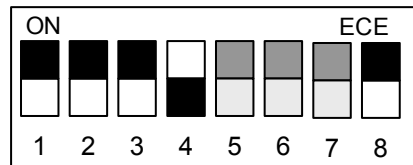


SW4 must be turned ON.

1.3.2 Connecting to GV-AS Controller through RS-485 Interface

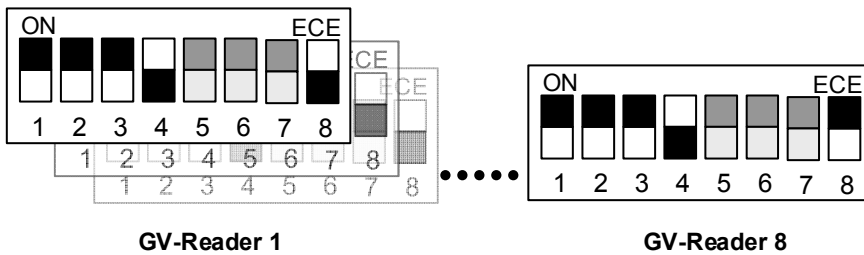


- Switch Setting for RS-485 Connection



SW4 must be turned OFF.

- Switch Setting for Connecting Multiple GV-Readers (RS-485)
Multiple GV-Readers can be connected to the GV-AS Controller through a single RS-485 cable. When you connect more than one GV-Reader to the GV-AS Controller, on the last connected GV-Reader turn SW8 to ON.



Defining Readers on GV-AS Controller Web Interface

After configuring the switch settings, you need to define the readers' ID number and specify which door each reader controls on the Web interface of the GV-AS Controller.

1. Type the GV-AS Controller's IP address in the Web browser.
2. Type the username and password to login.
3. In the left menu, click **Extended Reader**. This page appears.

AS210 Extended Reader Configuration

GV-Reader/CR420/GF1921/GF1922 Function

RS485	Serial Number	Function	Connection Status
<input checked="" type="checkbox"/>	ID 0 <input style="width: 80px;" type="text"/>	Door/Gate 1 Entry ▼	
<input type="checkbox"/>	ID 1 <input style="width: 80px;" type="text"/>	No Function ▼	
<input type="checkbox"/>	ID 2 <input style="width: 80px;" type="text"/>	No Function ▼	
<input type="checkbox"/>	ID 3 <input style="width: 80px;" type="text"/>	No Function ▼	
<input type="checkbox"/>	ID 4 <input style="width: 80px;" type="text"/>	No Function ▼	
<input type="checkbox"/>	ID 5 <input style="width: 80px;" type="text"/>	No Function ▼	
<input type="checkbox"/>	ID 6 <input style="width: 80px;" type="text"/>	No Function ▼	
<input type="checkbox"/>	ID 7 <input style="width: 80px;" type="text"/>	No Function ▼	

GeoFinger Server IP Address 192 . 168 . 0 . 1 : 2167 (from 1025 to 65535)

GF1901/GF1902/GF1911/GF1912 Function

RS485	Serial Number	Function	Connection Status
<input type="checkbox"/>	<input style="width: 80px;" type="text"/>	No Function ▼	
<input type="checkbox"/>	<input style="width: 80px;" type="text"/>	No Function ▼	

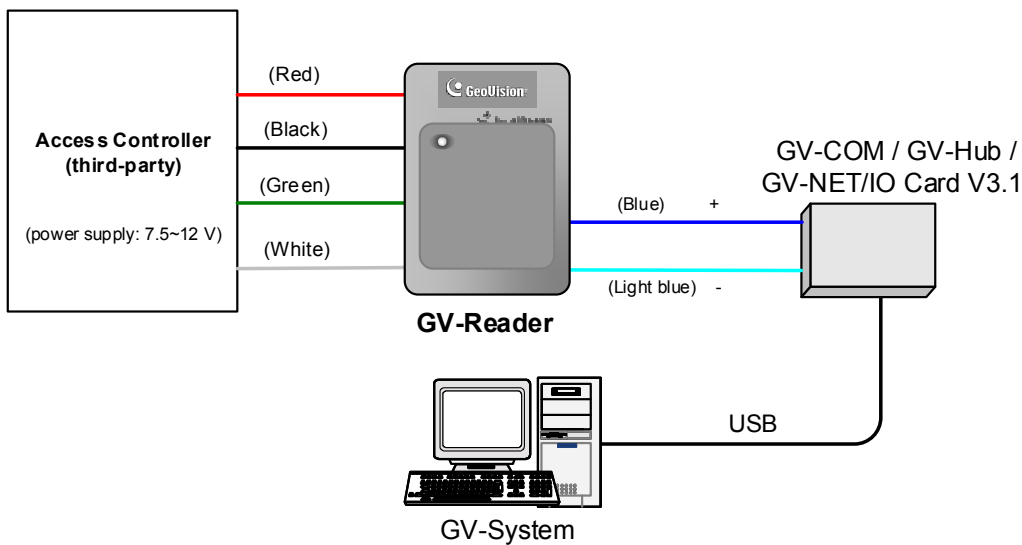
4. Select the **RS485** checkbox in front of the ID number.
The ID number must match the ID you configured using SW5 – SW7.
5. Leave the serial number field blank.
6. Select a door/gate for the reader under **Function**. Click Submit.

1.3.3 Connecting to GV-System and Third-Party Access Controllers

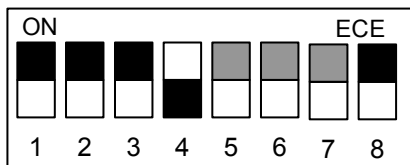
GV-Reader is also compatible with third-party access controllers. With its compatibility, you can also add a GV-System to this connection to empower your management.

After connecting the GV-Reader to the access controller through the Wiegand interface, connect the GV-Reader to the GV-System via GV-COM, GV-Hub or GV-NET/IO Card V3.1.

Note: The GV-Reader is not compatible with the GV-NET Card and the GV-NET/IO Card of versions earlier than V3.



- Switch Setting



SW4 must be turned OFF.

1.4 Specifications

	GV-Reader 1251	GV-Reader 1352 (V2)
CPU	8-bit microprocessor	
Wiegand Interface	Wiegand 26 / 34 bits, distance 30 m / 98.43 ft	
Power Source	DC 7.5~12V	
Power Consumption	60 mA	
LED	Red, Green LED	
Beeper	Buzzer	
Frequency	125 KHz (Proximity EM Card)	13.56 MHz for ISO14443A (Mifare Class)
RS-485	9,600 bps	
Color	Black	
Operating Temperature	-35 °C ~ 65 °C (-31 °F ~ 149 °F)	
Operating Humidity	10 ~90% RH (non-condensing)	
Dimensions (W x H x D)	75 (W) x 115 (H) x 15 (T) mm, with enclosure 35 (T) mm 3 (W) x 4.5 (H) x 0.6 (T) in, with enclosure 1.38 (T) in	
Weight	150 g / 0.33 lb	
Ingress Protection	IP54	
Certification	CE, FCC, RoHS	

1.4.1 The number of GV-Reader 1251 supported by GV-AS

Controllers

GV-AS Controller Model	GV-Reader 1251 Interface	
	Wiegand	RS-485
GV-AS100	Not supported	Not supported
GV-AS110 / 120	Not supported	Not supported
GV-AS1010	Not supported	Not supported
GV-AS1110	Not supported	Not supported
GV-AS100 / 110 / 120 with GV-ASBox	Not supported	Not supported
GV-AS100 / 110 / 120 with GV-ASNet	Not supported	Not supported
GV-AS210 / 2110 / 2120	4	8
GV-AS410 / 4110	8	8
GV-AS810 / 8110	8	16
GV-EV48	Not supported	2

1.4.2 The number of GV-Reader 1352 V2 supported by GV-AS

Controllers

GV-AS Controller Model	GV-Reader 1352 V2 Interface	
	Wiegand	RS-485
GV-AS100	1	1
GV-AS110 / 120	1	Not supported
GV-AS1010	Not supported	2
GV-AS1110	Not supported	Not supported
GV-AS100 / 110 / 120 with GV-ASBox	2	4
GV-AS100 / 110 / 120 with GV-ASNet	Not supported	2
GV-AS210 / 2110 / 2120	4	8
GV-AS410 / 4110	8	8
GV-AS810 / 8110	8	16
GV-EV48	Not supported	2

Chapter 2 GV-RK1352 / R1352 / DFR1352 Card

Reader

GV-RK1352 / R1352 / DFR1352 are card readers capable of recognizing identification cards. GV-RK1352 comes with keypad, allowing it to also recognize PIN codes. GV-DFR1352 is designed to be installed on the door frame.

Featured with the Wiegand and RS-485 outputs, the readers can be connected to any standard access control panel. The readers are protected by a weather sealed and IP66 compliant housing for outdoor use.

2.1 Packing List

GV-RK1352



1. GV-RK1352 Card Reader
2. Screw x 2
3. Screw Anchor x 2
4. Front Cover Plate x 1



5. Software CD
6. Installation Guide
7. Warranty Card

GV-R1352



1. GV-R1352 Card Reader
2. Screw x 3
3. Screw Anchor x 2
4. Security Torx
5. Software CD
6. Installation Guide
7. Warranty Card

GV-DFR1352



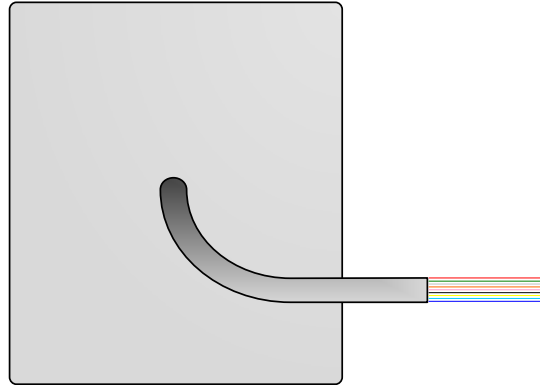
1. GV-DFR1352 Card Reader
2. Screw x 2
3. Screw Anchor x 2
4. Front Cover Plate x 2
5. Software CD
6. Installation Guide
7. Warranty Card

2.2 Physical Descriptions

2.2.1 Electric Wire

GV-RK1352

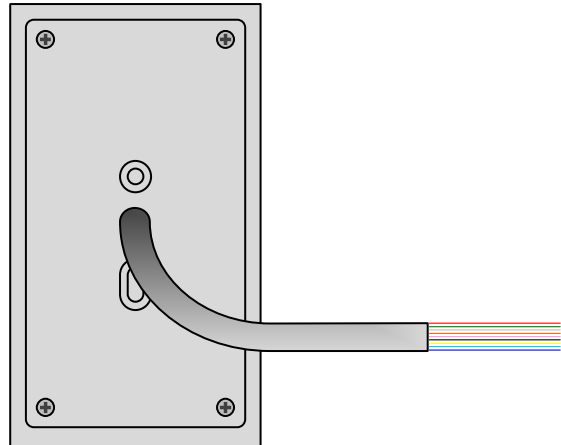
Wire Color	Function
Red	DC 7.5 ~ 12 V
Black	GND
Yellow	Beeper
Orange	Green LED
Light Red	Red LED
Green	Wiegand Data 0
White	Wiegand Data 1
Blue	RS-485 +
Light Blue	RS-485 -



Rear View

GV-R1352

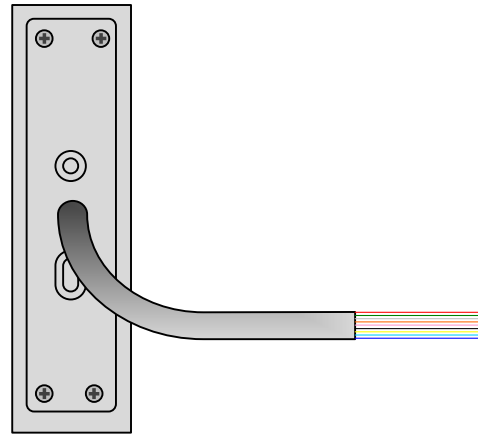
Wire Color	Function
Red	DC 7.5 ~ 12V
Black	GND
Yellow	Beeper
Orange	Green LED
Light Red	Red LED
Green	Wiegand Data 0
White	Wiegand Data 1
Blue	RS-485 +
Light Blue	RS-485 -
Gray	N/A
Purple	N/A
Brown	N/A



Rear View

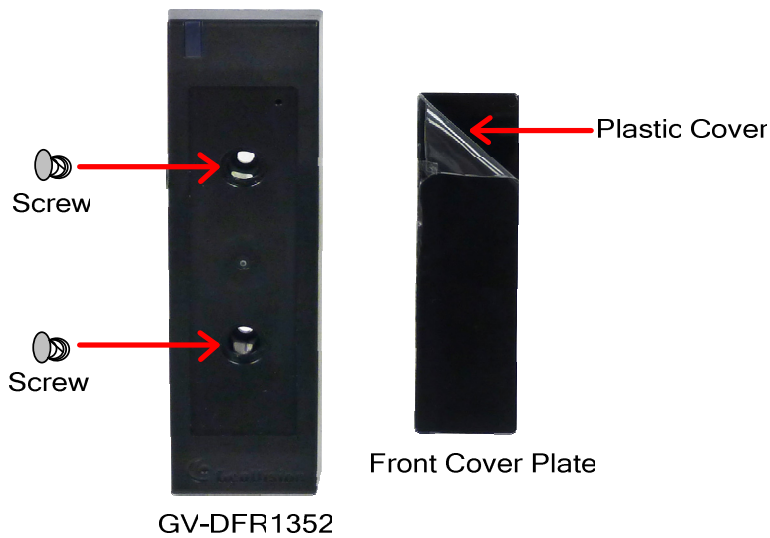
GV-DFR1352

Wire Color	Function
Red	DC 7.5 ~ 12V
Black	GND
Yellow	Beeper
Orange	Green LED
Light Red	Red LED
Green	Wiegand Data 0
White	Wiegand Data 1
Blue	RS-485 +
Light Blue	RS-485 -
Gray	N/A
Purple	N/A
Brown	N/A



Rear View

Install the GV-DFR1352 to the door frame using the supplied screws and screw anchors. Before placing and sticking the front cover plate to the GV-DFR1352, remove the Plastic Cover to prevent scratches to the cover after installed.



2.2.2 Keypad (GV-RK1352 Only)

When accessing an entry using GV-RK1352, 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.

2.2.3 LED Indicator and Beeper

In standby mode, the LED is blue. When a card is read, the LED flashes green and the beeper beeps once.

The reader comes with external control wires for Green LED, Red LED and Beeper. You can connect these control wires to a GV-AS Controller to change the default settings of the LED and Beeper. For details on how to configure the settings, refer to *2.6 Changing the Settings of Beeper and LED* later in this installation guide.

Note: You can only connect the LED and beeper wires to GV-AS210 / 2110 / 2120 / 410 / 4110 / 810 / 8110.

2.3 Connecting the Reader to GV-AS Controller

You can connect the readers to GV-AS Controllers through Wiegand or RS-485 interface. Note that the connection between the reader and GV-AS Controller varies with different controller models. To see how many readers can be connected to a GV-AS Controller, refer to 2.9.1 *The Number of Readers Supported by GV-AS Controllers*.

Note:

- GV-RK1352 / R1352 / DFR1352 is compatible with GV-AS100 / 1010 / 110 / 120 / 210 / 2110 / 2120 / 410 / 4110 / 810 / 8110. However, to enable the **keypad** function on GV-RK1352, you can only connect GV-RK1352 to the controllers through the following interfaces.
 - GV-AS100 / 110 / 120: through Wiegand interface
 - GV-AS1010: through RS-485 interface
 - GV-AS210 / 2110 / 2120 / 410 / 4110 / 810 / 8110: through Wiegand or RS-485 interface
- Each GV-RK1352 / R1352 / DFR1352 consumes 60 mA of power. The total power consumption of the output devices and readers connected to the GV-AS Controller must be under **3A** (for GV-AS210 / 2110 / 2120), **3.5A** (for GV-AS410 / 4110) or **5A** (for GV-AS810 / 8110). Connect an external power supply if the power supplied from GV-AS Controller is insufficient.

2.3.1 Connecting through Wiegand Interface

The following diagrams use **GV-RK1352** and **GV-AS810 Controller** as an example. Up to eight readers can be connected to GV-AS810 Controller through the controller's Wiegand interface.



Note: Connection through Wiegand interface is not supported for GV-AS1010.

2.3.2 Connecting through RS-485 Interface

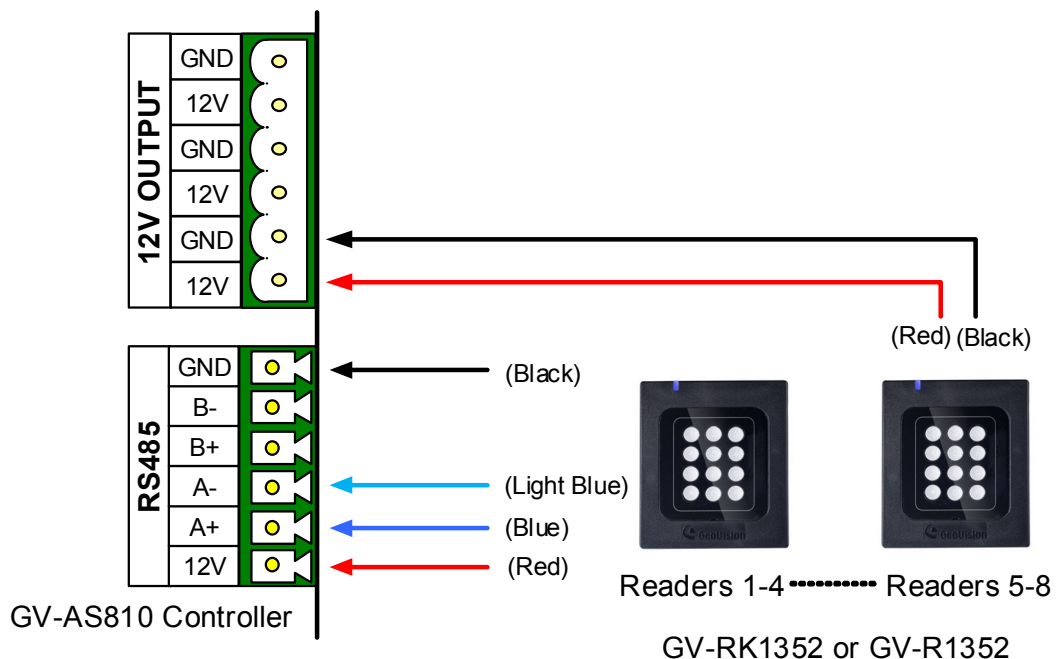
The following diagrams use **GV-RK1352** and **GV-AS810 Controller** as an example. Up to eight readers can be connected together to the RS-485 interface on GV-AS810 Controller.

- Connecting four or less readers to GV-AS810 Controller:



- Connecting five or more readers to GV-AS810 Controller:

For readers five to eight, connect the RS-485 cable to the RS-485 interface on GV-AS810 Controller and then connect the 12V power output and GND of the reader to a 12V DC power output on the controller.

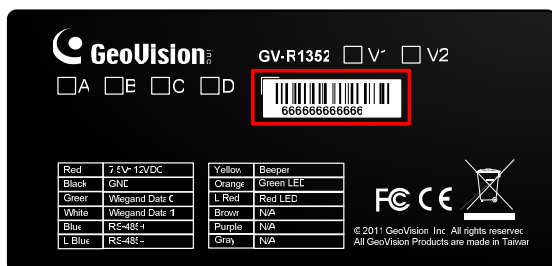


Defining Readers on GV-AS Controller Web Interface

Since multiple readers can connect to GV-AS Controller using one RS-485 interface, you need to specify which door each reader controls. This section explains how to define readers on the Web interface of GV-AS Controller. On the Web interface, you can also set the reader to read the GID or UID on GV-AS ID Cards / Key Fobs. Note that the Web interface of different GV-AS Controller models varies.

1. On the controller's Web interface, click **Extended Reader**. This dialog box appears.

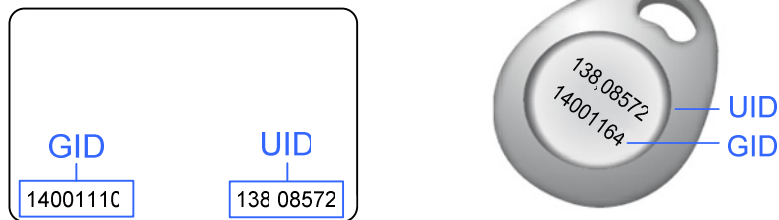
2. In the GV-Reader/CR420/GF1921/GF1922 section, select the **RS485** checkbox in front of the ID number and type the **Serial Number** on the rear panel of the reader. The ID number will be assigned to the reader.



3. Select a door/gate for the reader from the **Function** drop-down list.

- Next to **Read Mode**, select **Read UID** or **Read GID** to set the connected readers to read UID (unique identifier) or GID (GeoVision ID) on GV-AS ID Cards / Key Fobs.

If you select **Read GID**, make sure there are two numbers on your GV-AS ID Cards / Key Fobs as shown below. If there is only one number on your GV-AS ID Cards / Key Fobs, GID is not supported, and you must select Unique Identification (UID).



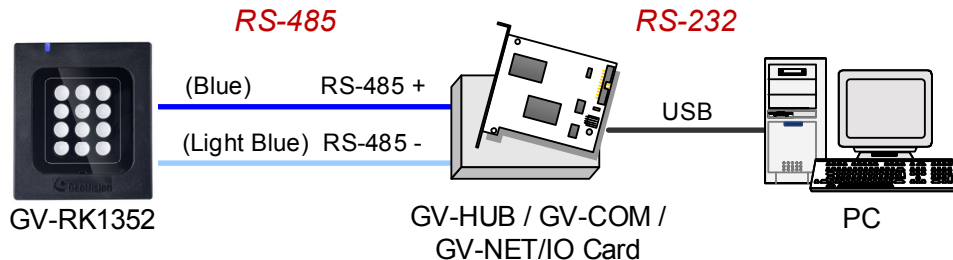
- Click **Submit**.

Note:

- When you click **Submit** on the Extended Reader page of a GV-AS1010 / 210 / 2110 / 2120 / 410 / 4110 / 810 / 8110, all readers connected through RS-485 interface will reboot.
 - GID ID format is only supported in GV-RK1352 / GV-R1352 / GV-DFR1352 (Rev. B) V1.2 or later.
 - If you are using third-party cards or key fobs, you must set the reader to read UID.
-

2.4 Installing the GV-R/RK/DFR Config AP

The GV-R/RK/DFR Config AP allows you to set the reader's beeper / LED, ID number, master / slave status, and whether it reads UID or GID. When using the Config AP, the reader needs to be connected to a PC through GV-COM, GV-Hub or GV-NET/IO Card V3.1.




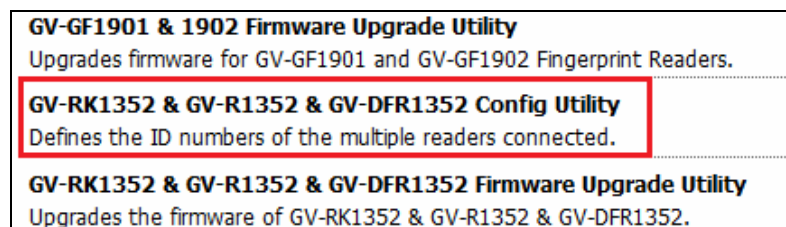
You can install the Config AP from the Software DVD or GeoVision Website. To use a GV-COM, GV-Hub or GV-NET/IO Card V3.1, you also need to install GeoVision USB Device Driver.


Installing from Software CD

1. Insert the software CD and the Install Program window will pop up automatically.
2. Select **Install GeoVision USB Device Driver**.
3. In the GeoVision USB Driver Installer window that appears, select **Install**.
4. Go back to the Install Program window, and select **Run GV-Reader Config Utility**.

Downloading from GeoVision Website

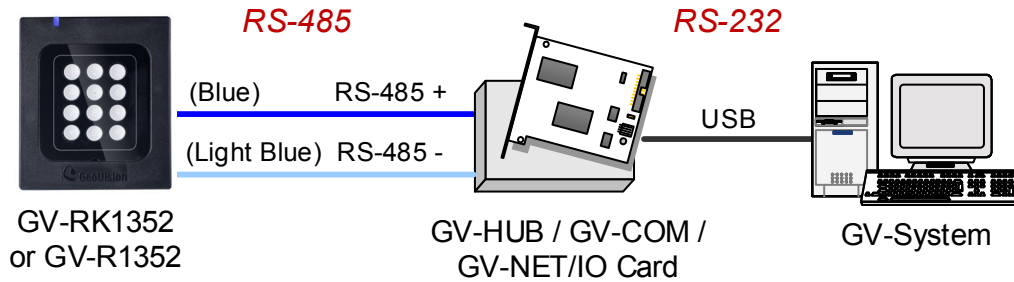
1. Go to the Software Download and Upgrading page of GeoVision Website:
http://www.geovision.com.tw/english/5_8_AS.asp
2. Select **GV-Reader** from the drop-down list, and click the **Download** icon  of **GV-RK1352 & GV-R1352 & GV-DFR1352 Config Utility**.



3. Select **Driver** from the drop-down list and click the **Download** icon  of **GV-USB Device Driver**.

2.5 Overlaying Card Numbers on GV-System Live View

You can overlay card numbers recognized at the reader onto a camera channel on GV-System. To overlay card numbers on GV-System channel, the reader needs to be connected to a GV-System through GV-COM, GV-Hub or GV-NET/IO Card V3.1.

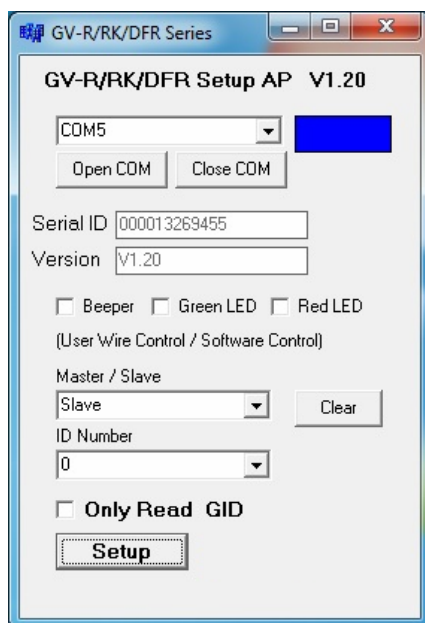


Note: GV-RK1352 / R1352 / DFR1352 is not compatible with GV-NET Card and GV-NET/IO Card of versions earlier than V3.

2.5.1 Defining the ID Number and Setting the Reader to Slave

After the reader is connected to the computer of the GV-System, use the **GV-R/RK/DFR Config AP** to define the ID number of the reader and set the reader to Slave.

1. Run **GV-R/RK/DFR Config AP**. Refer to 2.4. *Installing the GV-R/RK/DFR Config AP* above for how to install.

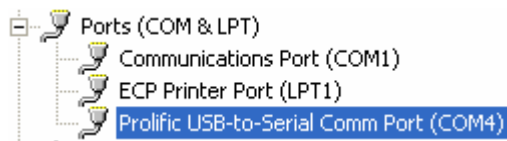


2. Select the COM port that is connected to the reader and click **Open COM**. The serial number and firmware version of the reader will be automatically detected. The red square next to the COM port box should change to blue to indicate the COM port is correct.
3. Under **Master / Slave**, set the reader to **Slave**.
4. Select an **ID number** for the reader. The ID number ranges from 0 to 7.
5. Click **Setup**. The settings are sent to the reader.

If you want to connect multiple readers to the GV-System, you need to set up a unique ID number for each reader. For this you need to connect each reader to the computer one reader at a time, and follow the instructions above to set up an ID number.

Note:

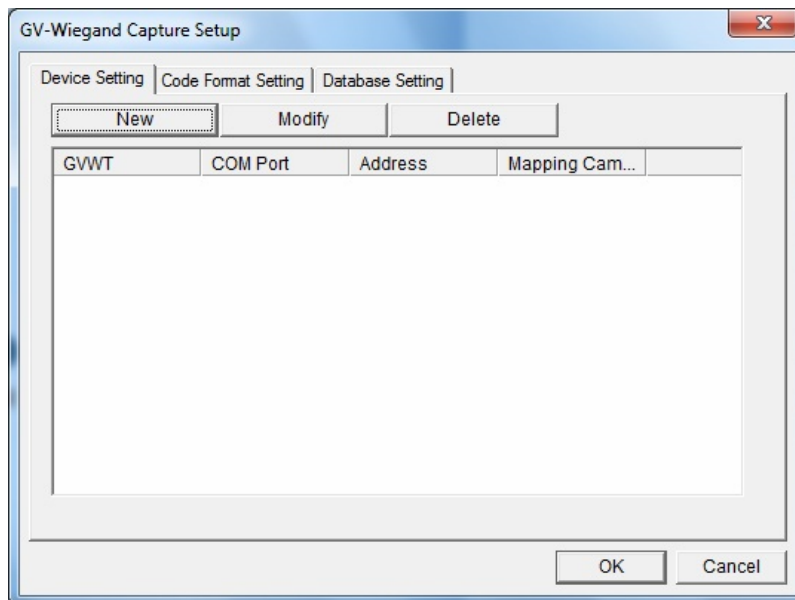
1. If the COM port is incorrect, an “**Error opening serial port**” message will appear. To verify the COM port that is connected to the reader, go to Windows Device Manager. In the Ports (COM & LPT) field, you should see the entry for **Prolific USB-to-Serial Comm Port** and the COM number currently in use.



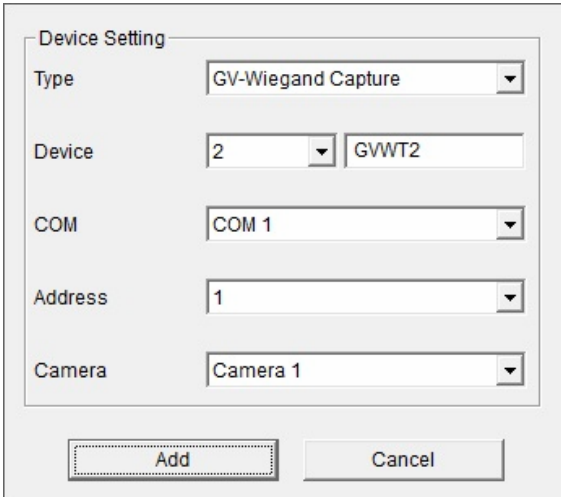
2. If you are using an older version of the Config AP, you will have to manually type the serial number of the reader. The serial number is on the rear panel of the reader.
-

2.5.2 Adding the Reader to GV-System

1. In GV-System, click the **Configure** button, select **Accessories**, and select **GV Wiegand Capture Device Setting**. This dialog box appears.



2. Click the **New** button. This dialog box appears.



- **Type:** Select GV-Wiegand Capture.
 - **Device:** Type a number and name to help you identify the reader.
 - **COM:** Select the COM port connected to the reader.
 - **Address:** Select the ID of the connected reader you set in GV-R/RK/DFR Config AP.
 - **Camera:** Assign the reader to a channel to overlay card numbers on the live view.
3. Click the **Add** button.

2.6 Changing the Default Settings of Beeper and LED

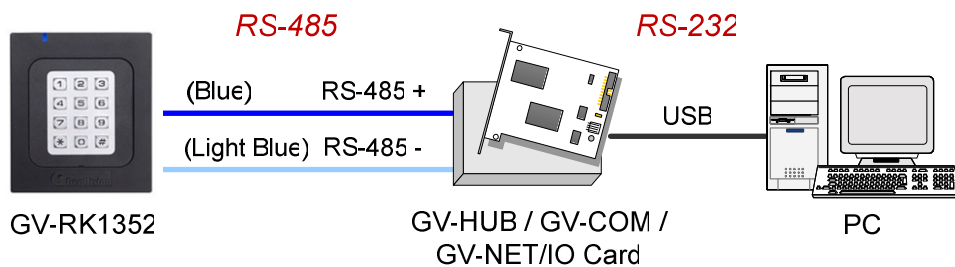
You can change the default settings of the LED and the beeper by enabling a GV-AS210 / 2110 / 2120 / 410 / 4110 / 810 / 8110 to externally control the LED and Beeper. Through the Web interface, you can set the controller to trigger the red LED, green LED or beeper when the specified alarm events occur.

The GV-AS Controller and the reader need to be connected through Wiegand interface. You will have to:

1. Enable external control of the reader's Beeper and LED by using the **GV-R/RK/DFR Config AP**.
2. Wire the Beeper, Red LED and Green LED from the reader to the GV-AS Controller.
3. Specify the Beeper and LED settings for each door through the Web interface of GV-AS Controller.

2.6.1 Setting up Beeper and LED on GV-R/RK/DFR Config AP

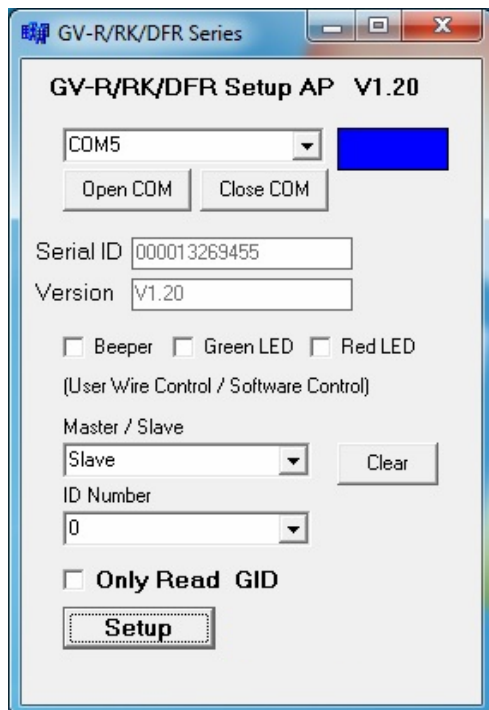
To enable the external controls of the Beeper and LED on GV-R/RK/DFR Config AP, the reader needs to be connected to a computer through GV-COM, GV-Hub or GV-NET/IO Card V3.1.



1. Start the **GV-R/RK/DFR Config AP** and select the COM port that is connected to the reader.

Note: To see how to install the Config AP and how to identify the COM port of the reader, refer to [2.4 Installing GV-R/RK/DFR Config AP](#) and [2.5.1 Defining the ID Number and Setting the Reader to Slave](#) earlier in this installation guide

2. Click **Open COM**. The serial number and the firmware version of the reader will be automatically detected.



3. To enable external control of Beeper or LED, select **Beeper**, **Green LED** or **Red LED**.
4. Select **Master** from the Master / Slave drop-down list.
5. Select an ID number for the reader. Make sure the ID number on the Config AP matches the ID number set on the Extended Reader page of the GV-AS Controller Web interface.
6. Click **Setup**. The settings are sent to the reader.

If you want to set up multiple readers to be controlled by the controller, you need to connect each reader to the computer one reader at a time, and follow the above instructions to enable external control.

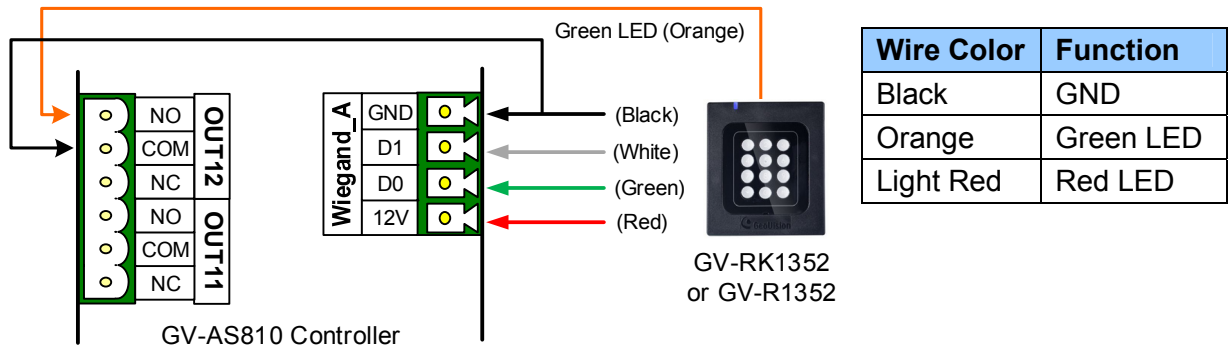
After the above settings, you need to connect the Beeper, Red LED and Green LED wires from the reader to the outputs of GV-AS Controller.

2.6.2 Wiring the Beeper and LED to the GV-AS Controller

To wire the beeper and LED to GV-AS210 / 2110 / 2120 / 410 / 4110 / 810 / 8110, connect the control wires of the reader's Beeper, Red LED or Green LED to any of the outputs on GV-AS Controller.

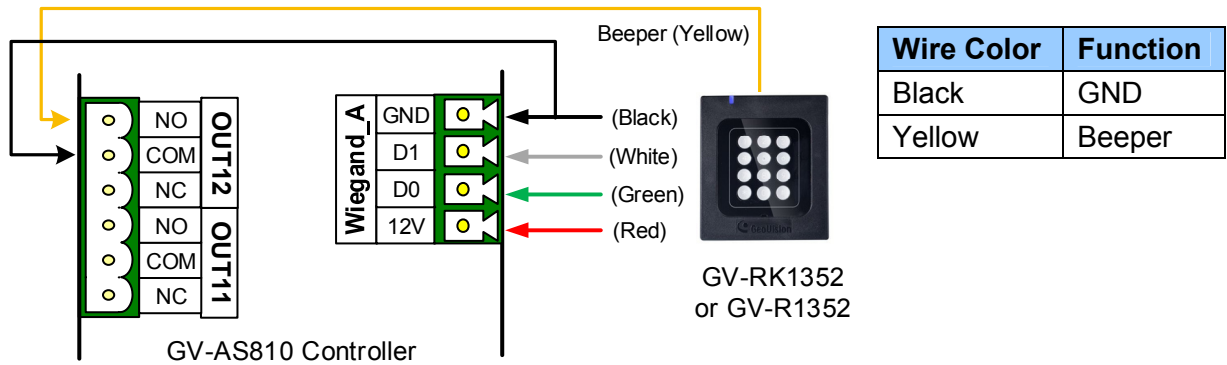
Wiring LED to GV-AS Controller

The diagram below shows the connection for wiring Green LED using GV-RK1352 and GV-AS810 as an example. For Red LED, use the light red wire instead.

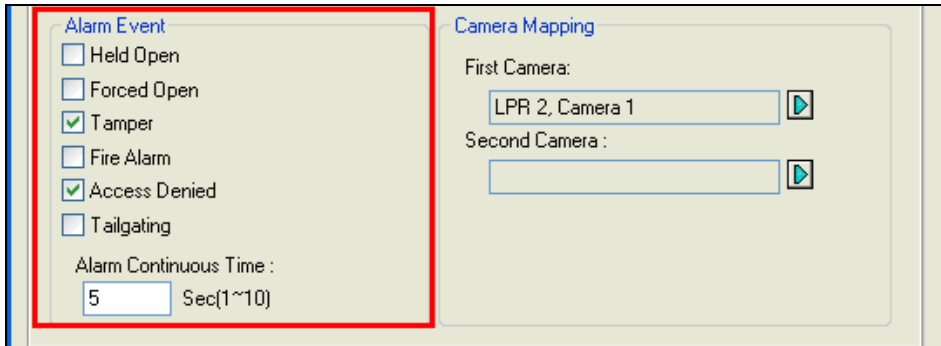


Wiring Beeper to GV-AS Controller

The diagram below shows the connection for wiring the beeper using GV-RK1352 and GV-AS810 as an example.



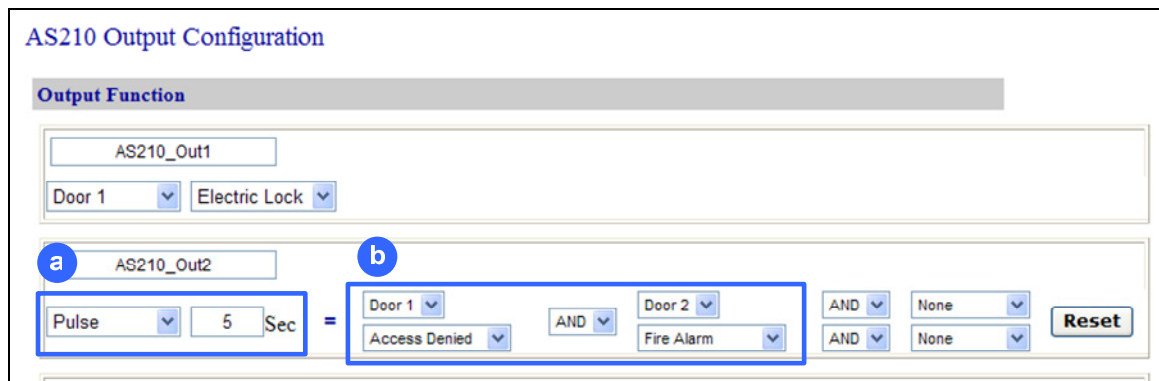
After wiring, you also need to go to GV-ASManager to select the alarm conditions that will set off the reader's beeper. In GV-ASManager, right-click the GV-AS Controller in the device list, click **Settings**, and click the **Door / Gate** tab to select the alarm conditions.



2.6.3 Configuring the Beeper and LED Settings for Each Door/Gate

After connecting the wires for beeper or LED, specify the conditions to trigger the beeper and LED on the GV-AS210 / 2110 / 2120 / 410 / 4110 / 810 / 8110 Web interface.

1. On the controller Web interface, click **Output Setting**. The page below appears.



2. Find the output wired to the beeper or LED and specify up to 2 alarm conditions to set off the beeper or LED.
 - a. **Output Type:** Select **Normal**, **Toggle** or **Pulse**. If you select Pulse, you can specify the number of seconds to trigger the beeper or LED.
 - b. **Output Conditions:** Select the door and the alarm conditions to trigger the beeper or LED. Up to 2 sets of output conditions can be set.
3. Click **Submit**.

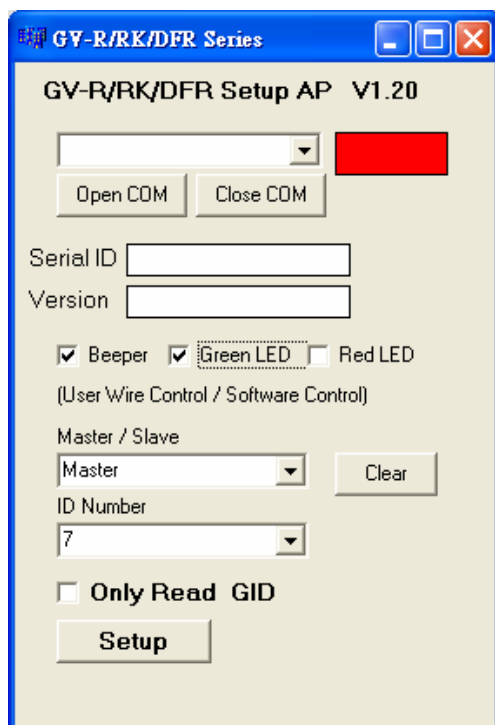
2.7 Setting UID or GID on GV-R/RK/DFR Config AP

By default, the readers read the UID (unique identifier) on ID cards or key fobs. Using GV-R/RK/DFR Config AP, you can set the GV-RK1352 / R1352 / DFR1352 to read GID (GeoVision ID) on GV-AS ID Cards / Key Fobs instead.

Note:

1. To see how to install the Config AP and how to identify the COM port of the reader, refer to [2.4 Installing GV-R/RK/DFR Config AP](#) and [2.5.1 Defining the ID Number and Setting the Reader to Slave](#).
 2. GID ID format is only supported in GV-RK1352 / GV-R1352 / GV-DFR1352 (Rev. B) V1.2 or later.
 3. If you are using third-party cards or key fobs, you must set the reader to read UID.
-

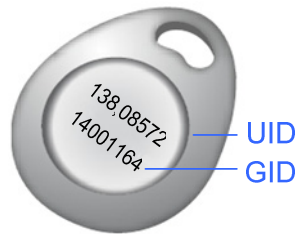
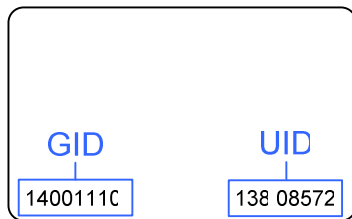
1. Run **GV-R/RK/DFR Config AP**.



2. Select the COM port that is connected to the reader and click **Open COM**. The serial number and firmware version of the reader will be automatically detected. The red square next to the COM port box should change to blue to indicate the COM port is correct.
3. To set the reader to read GID, select **Only Read GID**.

4. Click **Setup** to apply the setting.

To use GID, make sure there are two numbers on your GV-AS ID Cards / Key Fobs as shown below. If there is only one number on your GV-AS ID Cards / Key Fobs, GID is not supported and you must select Unique Identification (UID).



2.8 Firmware Upgrade

GeoVision will periodically release the updated firmware on the website. The new firmware can be simply loaded into the reader by using **Update Utility** included in the Software CD.

Important Notes before You Start

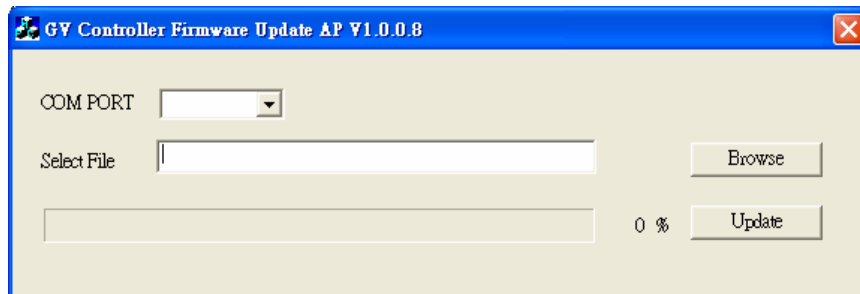
Before you start updating the firmware, please read these important notes:

1. While the firmware is being updated, the power supply must not be interrupted.
2. Do not turn the power off within 10 minutes after the firmware is updated.


WARNING: The interruption of power supply during updating causes not only update failures but also damages to the device. In this case, please contact your sales representative and send your device back to GeoVision for repair.

To upgrade firmware:

1. Insert the Software CD and select **Run Firmware Update Utility**. This dialog box appears.



2. Select the COM port of the reader.
3. Click the **Browse** button to locate the firmware file (.bin) saved at your local computer.
4. Click **Update**.
5. The LED indicator should flash purple during the process of firmware upgrading. When the process is complete, the reader will be sounded twice and the LED indicator will change to green.

Note: You can also download the firmware upgrade utility from the GeoVision website: http://www.geovision.com.tw/english/5_8_AS.asp. Select **GV-Reader** from the drop-down list, click the **Download** icon  of **GV-RK1352 & GV-R1352 & GV-DFR1352 Firmware Upgrade Utility**.

2.9 Specifications

	GV-RK1352	GV-R1352	GV-DFR1352 (Rev. B)
CPU	8-bit microprocessor		
Frequency	13.56 MHz for ISO14443A (Mifare DESFire, Mifare Plus and Mifare Class)		
Wiegand Interface	Wiegand 26 / 34 bit, distance 100 m (328.1ft), 24 AWG, 13V DC min., 85 °C min		
RS-485	9,600 bps, connect up to 8 GV-RK1352 / R1352 / DFR1352 units Distance 600 m (1968.50 ft), 24 AWG, 13V DC min., 85 °C min		
Input Rating	7.5V DC~12V DC, 200mA		
LED	Red, Green and Blue LED		
Beeper	Buzzer		
Reader Color	Black		
Supported ID Formats	Reads GID and UID		
Operating Temperature	-35 °C ~ 66°C / -31 °F ~ 150.8 °F		
Operating Humidity	10% ~ 90% (no condensation)		
Dimensions (W x H x D)	95 x 108 x 23 mm / 3.74 x 4.25 x 0.91 in	65.8 x 115.6 x 20.5 mm / 4.6 x 2.6 x 0.8 in	20.9 x 105.6 x 20.5 mm / 0.8 x 4.2 x 0.8 in
Weight	260 g / 0.57 lb	120 g / 0.26 lb	80 g / 0.17 lb
Ingress Protection	IP66		
Certification	CE, FCC, RoHS, UL, CUL		

Note: GID ID format is only supported in GV-RK1352 / GV-R1352 / GV-DFR1352 (Rev. B) V1.2 or later.

2.9.1 The Number of Readers Supported by GV-AS Controllers

GV-AS Controller Model	Number of RK1352 / R1352 / DFR1352 Supported	
	Wiegand	RS-485
GV-AS100	1	1
GV-AS1010	Not supported	2
GV-AS110 / 120	1	Not supported
GV-AS100 / 110 / 120 with GV-ASBox	2	4
GV-AS100 / 110 / 120 with GV-ASNet	Not supported	2
GV-AS210 / 2110 / 2120	4	8
GV-AS410 / 4110	8	8
GV-AS810 / 8110	8	16
GV-EV48	Not supported	2

2.10 Accessory (GV-RK1352 and GV-R1352 Only)

Optional accessories can expand the capabilities and versatilities of your GV-RK1352 and GV-R1352 Card Reader. Consult your sales representative for more information.

GV-MountA900	GV-MountA900 is a mounting plate that allows you to attach GV-RK1352 and GV-R1352 to a US single gang power box. <ul style="list-style-type: none">• Dimensions: 100 x 68 mm / 3.9 x 2.7 in• Weight: 55 g / 0.12 lb
---------------------	--

Connecting GV-MountA900

1. Screw GV-MountA900 to the US single gang power box through holes C.
2. Thread the cable through GV-MountA900 and then attach the reader.
 - GV-R1352: Secure through holes A
 - GV-RK1352: Secure through holes B

