

## 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.

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

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## 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:**

1. 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
2. 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

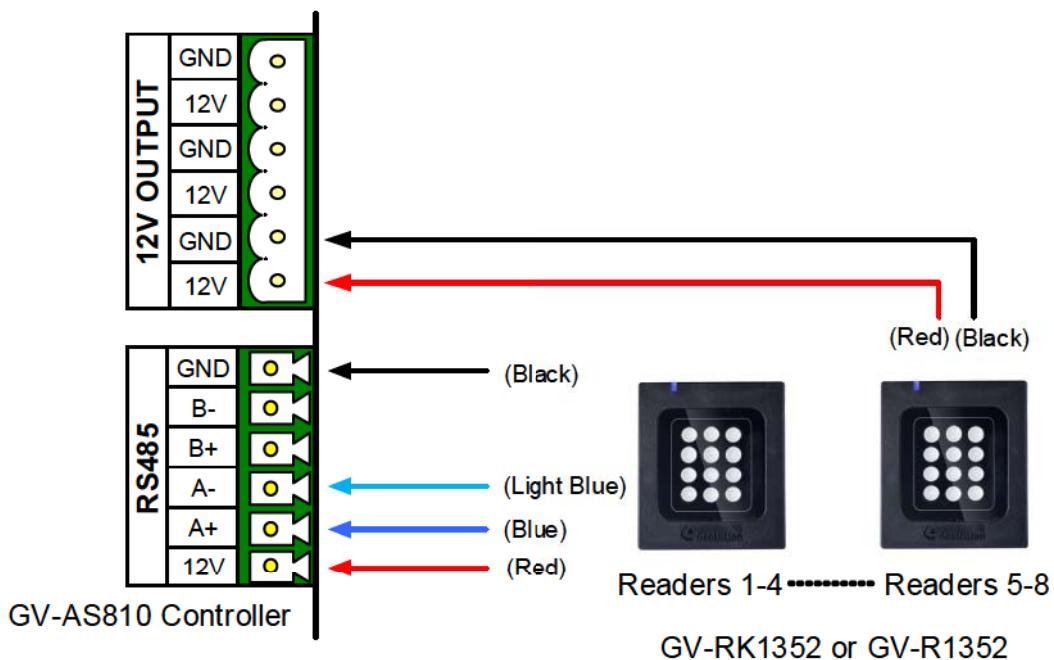
The following diagrams use **GV-RK1352** and **GV-AS810 Controller** as an example. Up to eight readers can be connected together to the RS-485 interface on GV-AS810 Controller.

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



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

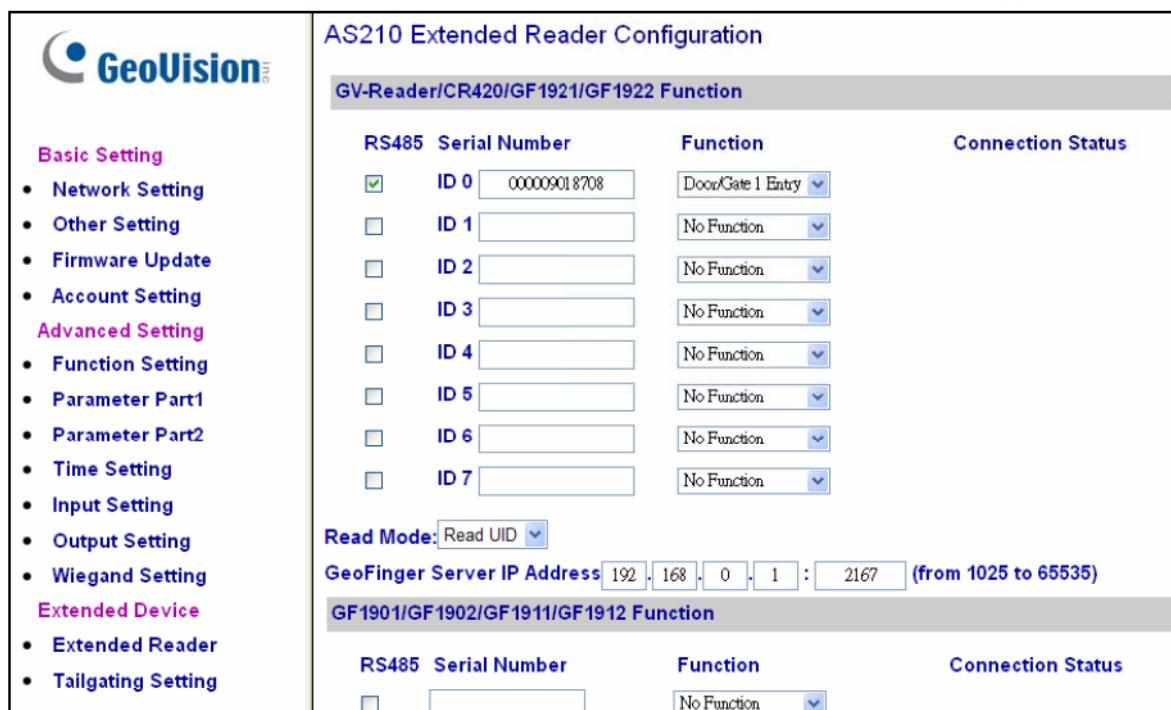
For readers five to eight, connect the RS-485 cable to the RS-485 interface on GV-AS810 Controller and then connect the 12V power output and GND of the reader to a 12V DC power output on the controller.



### 2.3.3 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.



RS485 Serial Number	Function	Connection Status
<input checked="" type="checkbox"/> ID 0 000009018708	Door/Gate 1 Entry	
<input type="checkbox"/> ID 1	No Function	
<input type="checkbox"/> ID 2	No Function	
<input type="checkbox"/> ID 3	No Function	
<input type="checkbox"/> ID 4	No Function	
<input type="checkbox"/> ID 5	No Function	
<input type="checkbox"/> ID 6	No Function	
<input type="checkbox"/> ID 7	No Function	

**Read Mode:** Read UID

**GeoFinger Server IP Address:** 192.168.0.1 : 2167 (from 1025 to 65535)

RS485 Serial Number	Function	Connection Status
<input type="checkbox"/>	No Function	

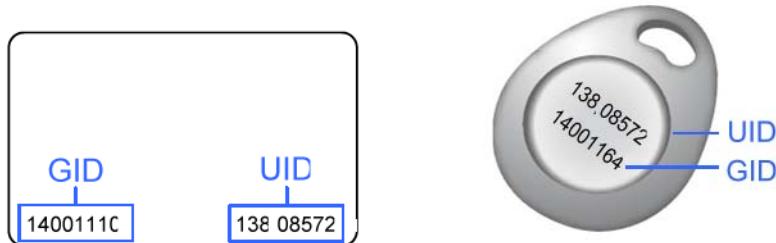
2. In the GV-Reader/CR420/GF1921/GF1922 section, select the **RS485** checkbox in front of the ID number and type the **Serial Number** on the rear panel of the reader. The ID number will be assigned to the reader.



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

4. 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).



5. Click **Submit**.

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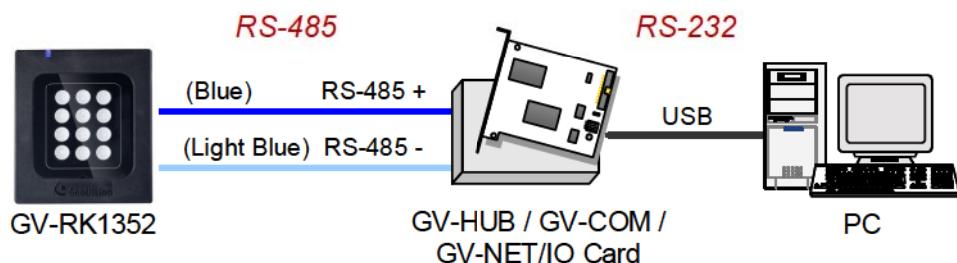
**Note:**

1. 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.
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.

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## 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.



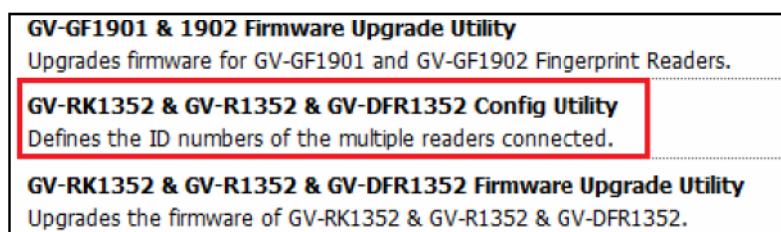
You can install the Config AP from the Software DVD or GeoVision Website. To use a GV-COM, GV-Hub or GV-NET/IO Card V3.1, you also need to install GeoVision USB Device Driver.

### 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

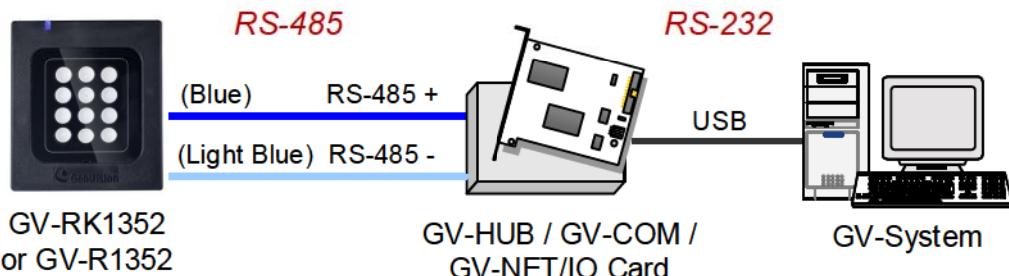
1. Go to the Software Download and Upgrading page of GeoVision Website:  
[http://www.geovision.com.tw/english/5\\_8\\_AS.asp](http://www.geovision.com.tw/english/5_8_AS.asp)
2. Select **GV-Reader** from the drop-down list, and click the **Download** icon  of **GV-RK1352 & GV-R1352 & GV-DFR1352 Config 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-DVR/NVR Live View

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




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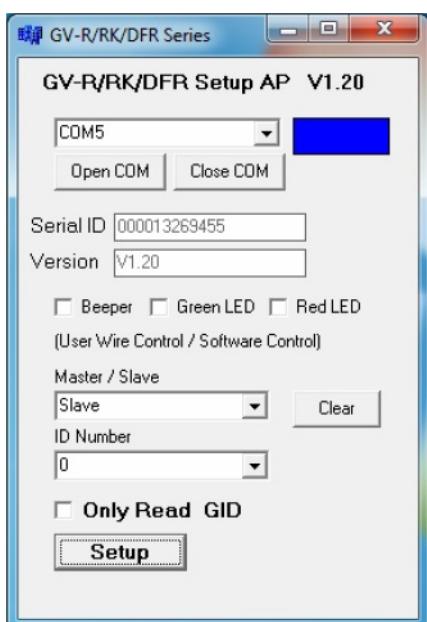
**Note:** GV-RK1352 / R1352 / DFR1352 is not compatible with GV-NET Card and GV-NET/IO Card of versions earlier than V3.

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### 2.5.1 Defining the ID Number and Setting the Reader to Slave

After the reader is connected to the computer of the GV-DVR/NVR, 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.



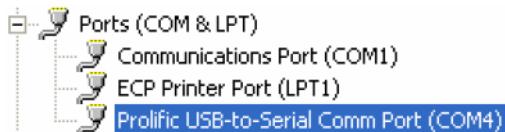
2. Select the COM port that is connected to the reader and click **Open COM**. The red square next to the COM port box should change to blue to indicate the COM port is correct.
3. Under **Master / Slave**, set the reader to **Slave**.
4. Select an **ID number** for the reader. The ID number ranges from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

If you want to connect multiple readers to the GV-DVR/NVR, 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.

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**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.

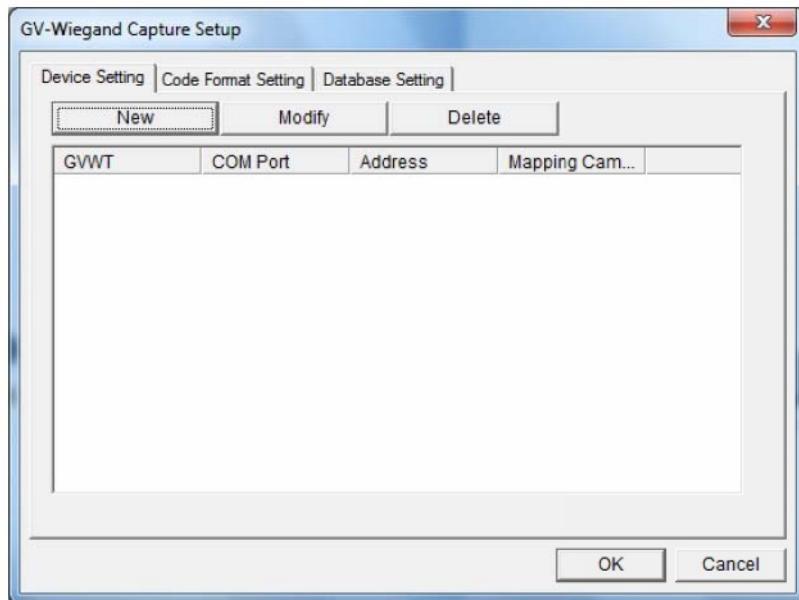


2. If you are using an older version of the Config AP, you will have to manually type the serial number of the reader. The serial number is on the rear panel of the reader.

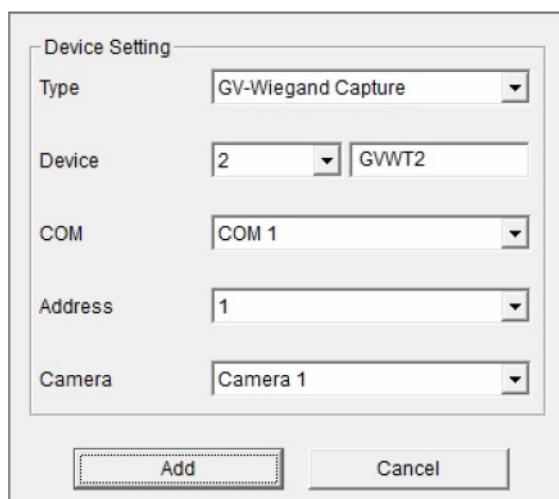
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### 2.5.2 Adding the Reader to GV-DVR/NVR

1. In GV-DVR/NVR, 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.

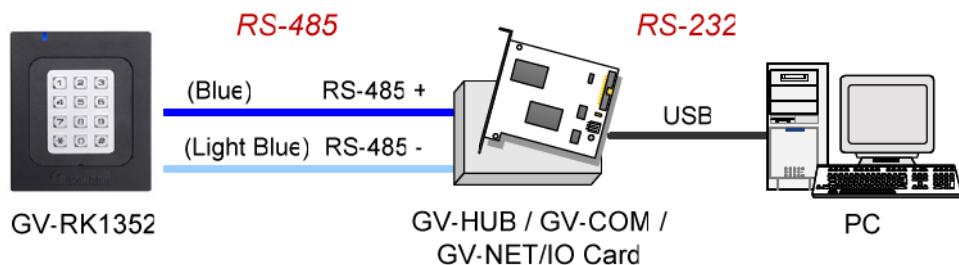
## 2.6 Changing the Default Settings of Beeper and LED

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 of the controller, you can set the controller to trigger the red LED, green LED or beeper when the specified alarm events occur.

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.



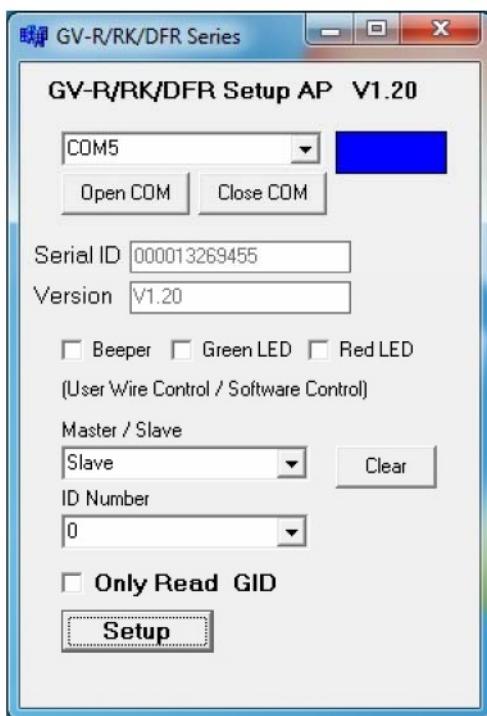
1. Start the **GV-R/RK/DFR Config AP** and select the COM port that is connected to the reader.

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**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

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2. Click **Open COM**.



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. The serial number and the firmware version of the reader will be automatically detected.

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.

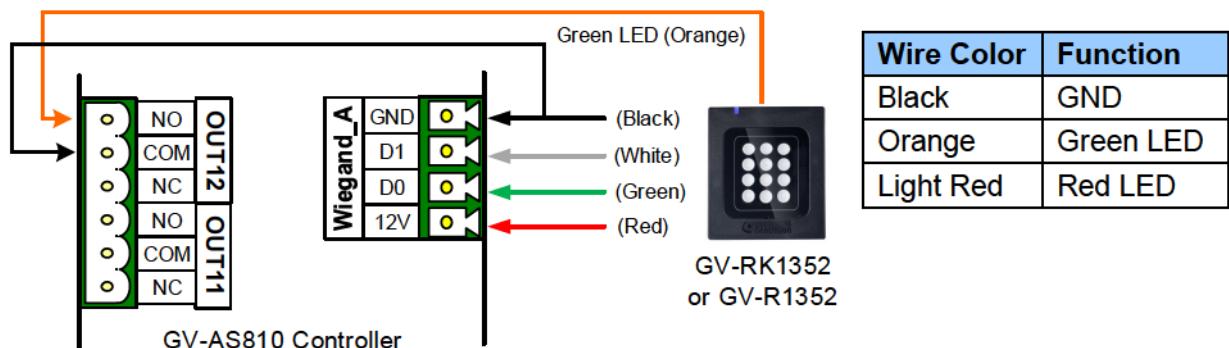
After the above settings, you need to connect the Beeper, Red LED and Green LED wires from the reader to the outputs of GV-AS Controller.

## 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.

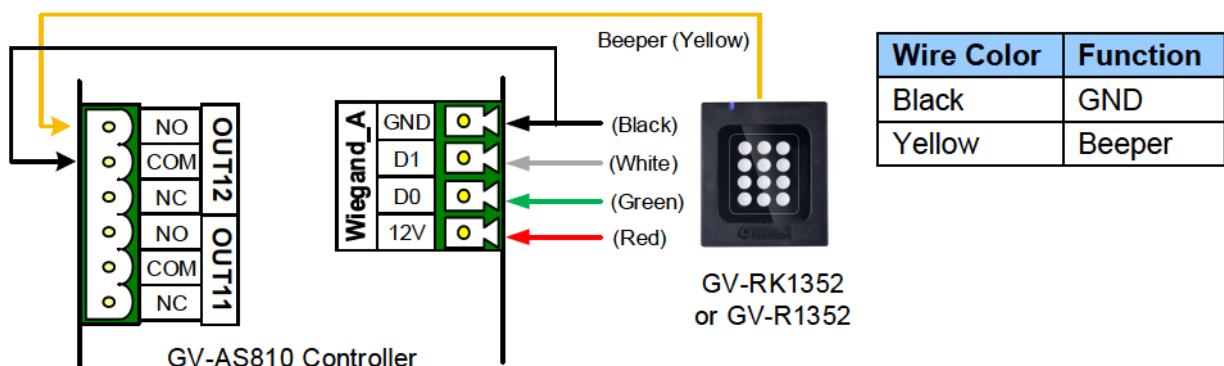
### Wiring LED to GV-AS Controller

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.

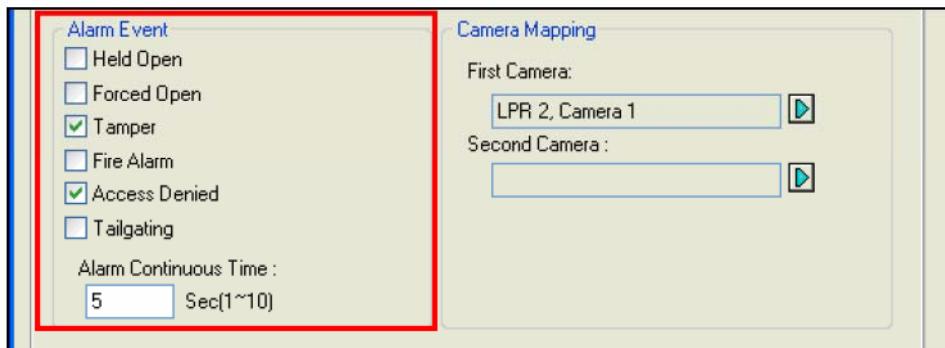


### Wiring Beeper to GV-AS Controller

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.
  - Output Type:** Select **Normal**, **Toggle** or **Pulse**. If you select Pulse, you can specify the number of seconds to trigger the beeper or LED.
  - 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.

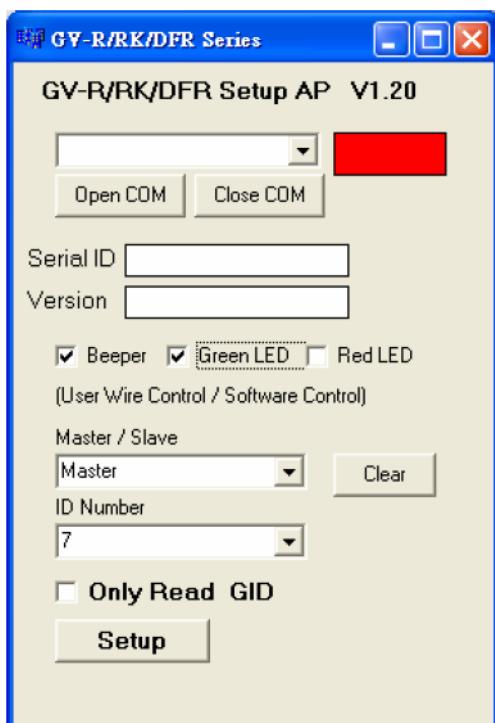
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**Note:**

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.

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



2. Select the COM port that is connected to the reader and click **Open COM**. 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. The serial number and firmware version of the reader will be automatically detected.

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).

