GV- DFR1352 Card Reader

The GV-DFR1352 is a card reader designed to recognize identification cards. Featured with the Wiegand and RS-485 outputs, the unit can be connected to any standard access control panel. GV-DFR1352 comes with a weather sealed and IP66 compliant housing for outdoor use.

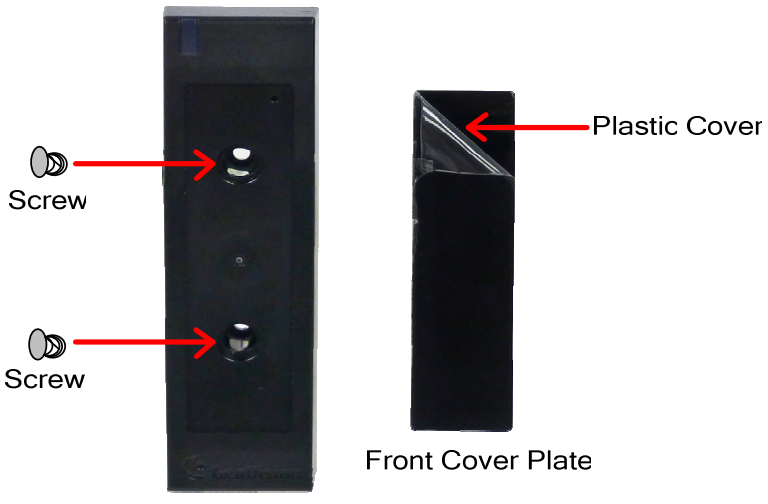
1. Packing List

1. GV-DFR1352 Card Reader
2. Screw x 2
3. Screw Anchor x 2
4. Front Cover Plate x 2
5. GV-DFR1352 Software CD

Front View

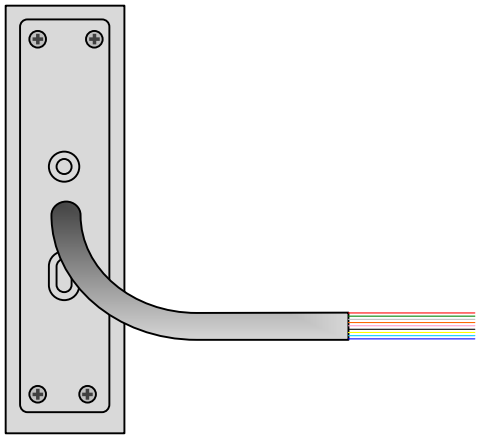
2. Installation

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.



3. Electric Wire

Wire Color	Function
Red	DC 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

4. 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.

GV-DFR1352 comes with external control wires for Green LED, Red LED and Beeper. You can connect these control wires to a GV-AS400 / 410 / 810 to allow the status of LED and Beeper to be defined by the GV-AS400 / 410 / 810. For details on how to configure the settings, refer to *7. Enabling External Control of the Beeper and LED* later in this installation guide.

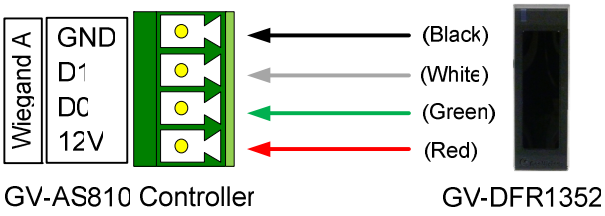
5. Connecting GV-DFR1352 to GV-AS Controller

GV-DFR1352 can be connected to GV-AS100 / 110 / 120 / 210 / 400 / 410 / 810. To see how many readers can be connected to a GV-AS Controller, refer to *The number of GV-DFR1352 supported by GV-AS Controllers* table at the end of this installation guide.

The connection between GV-DFR1352 and the controller varies with different controller models. The following diagrams illustrate **how to connect GV-DFR1352 to GV-AS810 Controller** through Wiegand or RS-485 interface.

5.1 Connecting through Wiegand Interface

Up to eight GV-DFR1352 readers can be connected to GV-AS810 Controller through the controller's Wiegand interface.

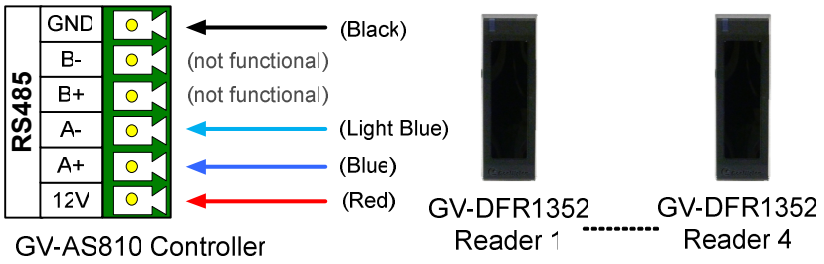


Wire Color	Function
Black	GND
White	Wiegand Data 1
Green	Wiegand Data 0
Red	DC 12V

5.2 Connecting through RS-485 Interface

Up to eight GV-DFR1352 readers can be connected together to the RS-485 interface on GV-AS810 Controller.

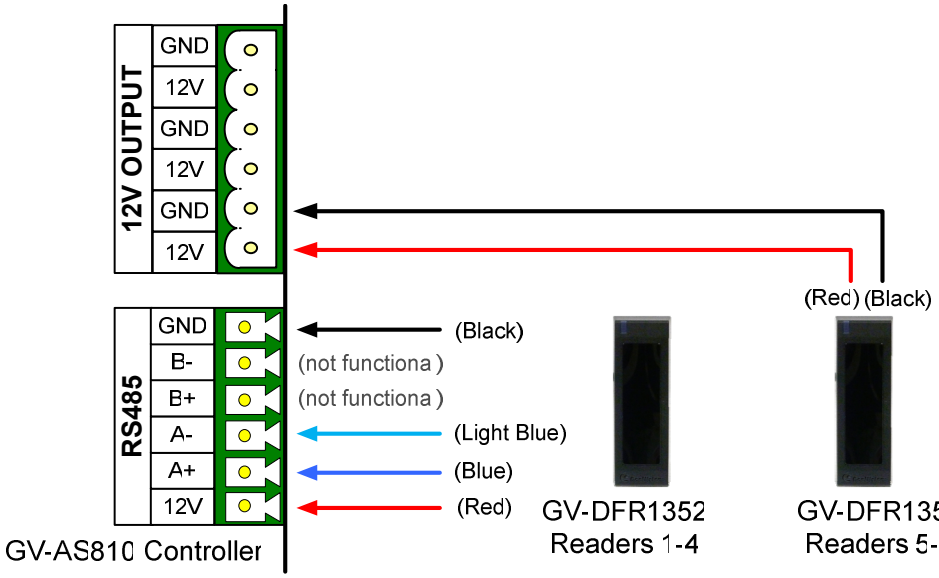
- Connecting four or less readers to GV-AS810 Controller:



Wire Color	Function
Black	GND
Light Blue	RS-485 -
Blue	RS-485 +
Red	DC 12V

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

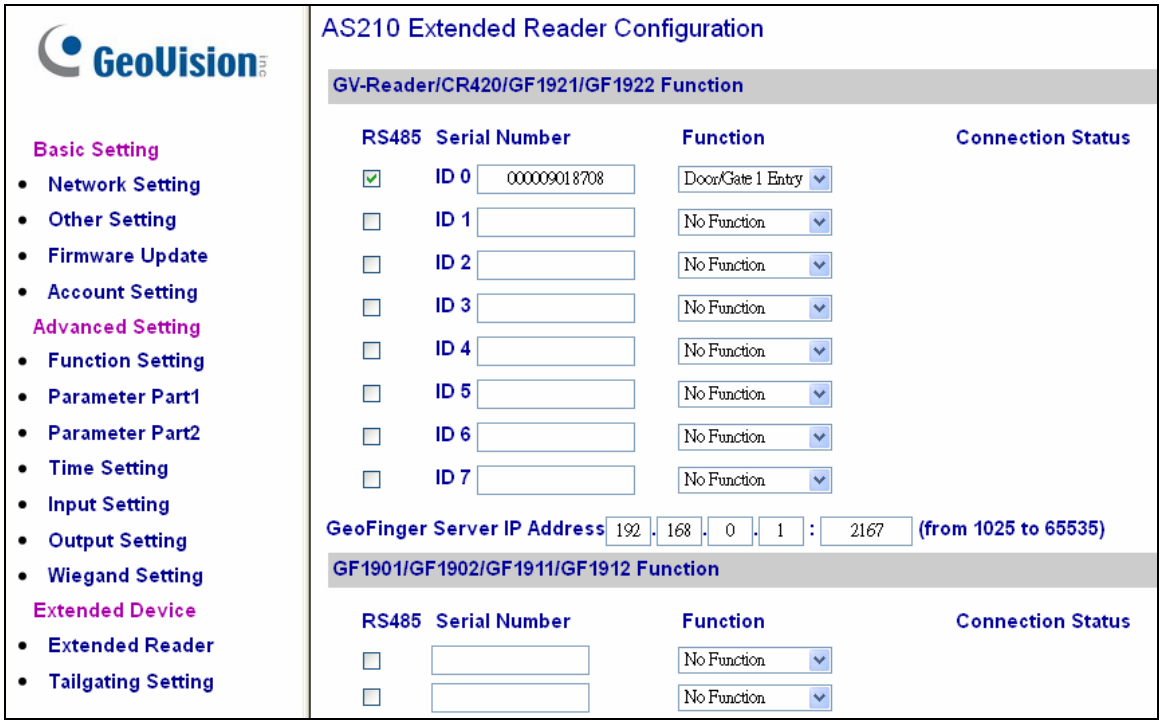
  For readers five to eight, connect the RS-485 cable to the RS-485 interface on GV-AS810 and then connect the 12V power output and GND of the reader to a 12V power output on the controller.



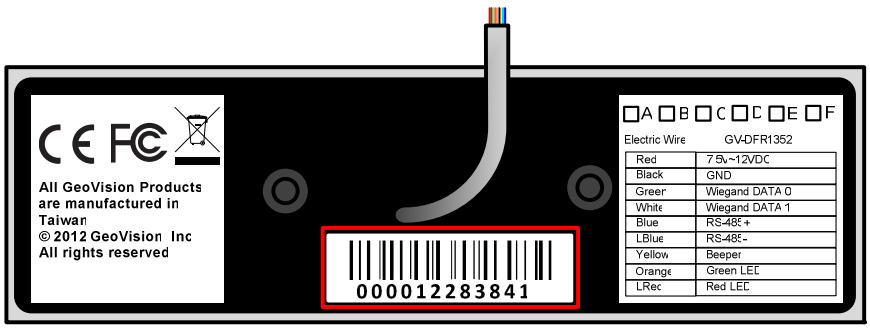
5.2.1 Defining Readers on GV-AS Controller Web Interface

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 using **GV-AS210 Controller** as an example.

1. On the GV-AS210 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.

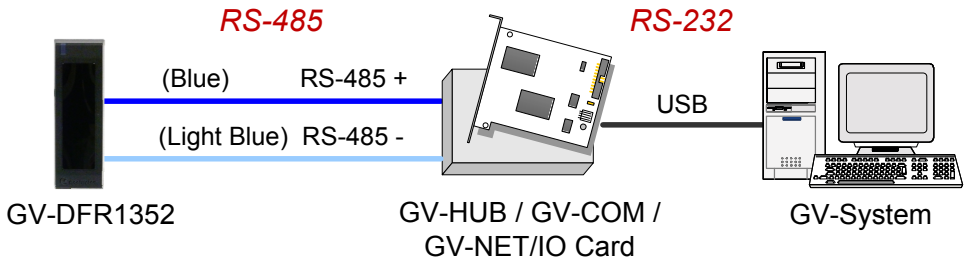


3. Select a door/gate for the reader from the **Function** drop-down list. Click **Submit**.

Note: When you click **Submit** on the Extended Reader page of a GV-AS210 / 410 / 810, all GV-RK1352 / R1352 / DFR1352 connected through RS-485 interface will reboot.

6. Overlaying Card Numbers on GV-System Live View

You can overlay card numbers recognized at the GV-DFR1352 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.

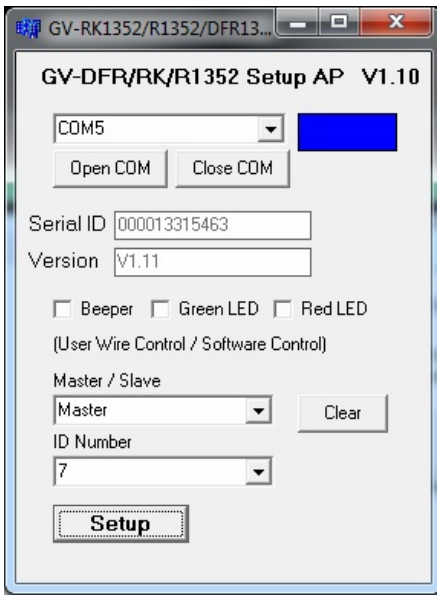


Note: GV-DFR1352 is not compatible with GV-NET Card and GV-NET/IO Card of versions earlier than V3.

6.1 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-Reader Config AP** in the software CD to define the ID number of the reader and set the reader to Slave.

1. Insert the software CD. The Install Program window will pop up automatically.
2. Select **Install GeoVision USB Devices 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**.

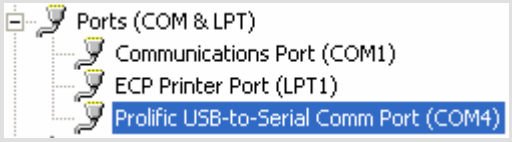


5. Select the COM port that is connected to GV-DFR1352 and click **Open COM**. The serial number and firmware version of the reader will be automatically detected. The red square next to the COM port box should change to blue to indicate the COM port is correct.
6. Under **Master / Slave**, set the reader to **Slave**.
7. Select an **ID Number** for the reader. The ID number ranges from 0 to 7.
8. Click **Setup**. The settings are sent to GV-DFR1352.

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:

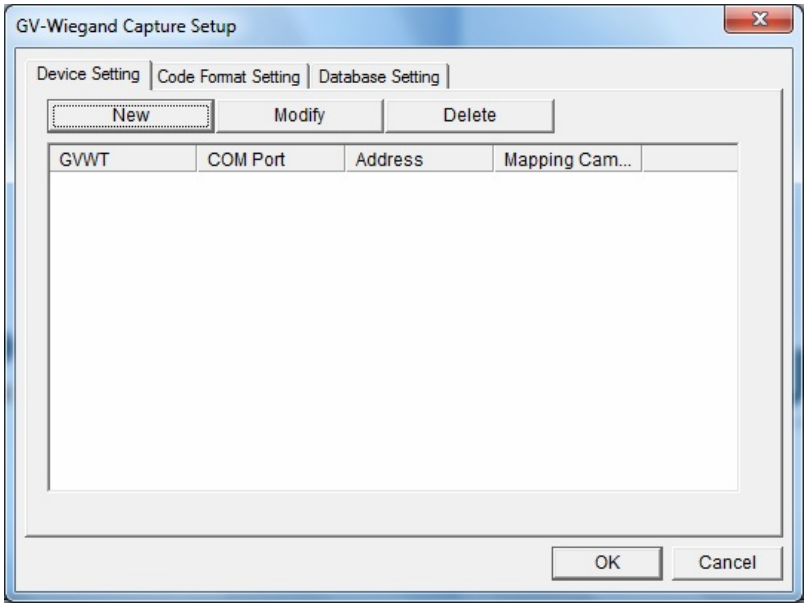
1. If the COM port is incorrect, an "***Error opening serial port***" message will appear. To verify the COM port that is connected to GV-DFR1352, go to Windows Device Manager. In the Ports (COM & LPT) field, you should see the entry for **Prolific USB-to-Serial Comm Port** and the COM number currently in use.



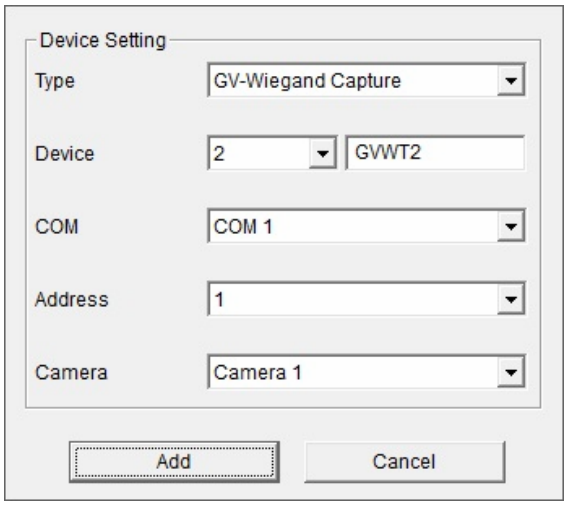
2. If you are using an older version of the GV-Reader Config AP, you will have to manually type the serial number of GV-DFR1352. The serial number is on the rear panel of GV-DFR1352.

6.2 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-Reader Config AP.
   - **Camera:** Assign the reader to a channel to overlay card numbers on the live view.

3. Click the **Add** button.

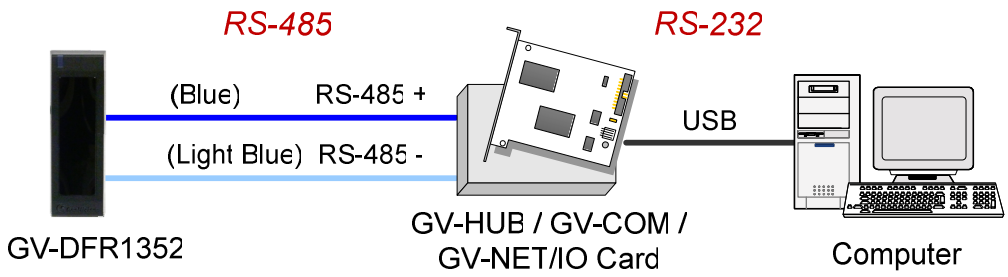
7. Enabling External Control the Beeper and LED

You can change the default settings of the LED and the beeper by enabling a GV-AS400 / 410 / 810 to externally control the LED and Beeper. The GV-AS Controller and the reader need to be connected through Wiegand interface. You will have to:

1. Enable external control of the GV-DFR1352's Beeper and LED by using the **GV-Reader Config AP**. Refer to *7.1 Setting up Beeper and LED on GV-Reader Config AP*.
2. Wire the Beeper, Red LED and Green LED from GV-DFR1352 to GV-AS400 / 410 / 810.
3. Specify the Beeper and LED settings for each door through the Web interface of GV-AS400 / 410 / 810.

7.1 Setting up Beeper and LED on GV-Reader Config AP

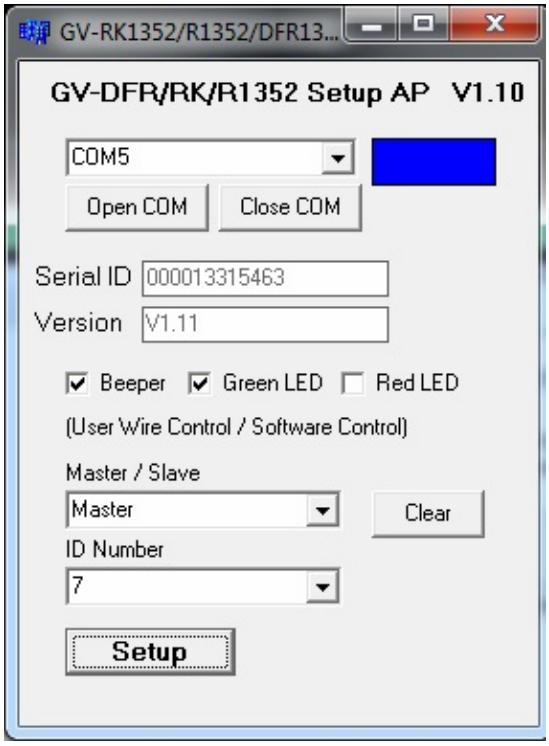
To enable the external controls of the Beeper and LED on GV-Reader Config AP, the reader needs to be connected to a computer through GV-COM, GV-Hub or GV-NET/IO Card V3.1.



1. Install **GV-Reader Config AP** from the Software CD.
2. Start the **GV-Reader Config AP** and select the COM port that is connected to GV-DFR1352.

Note: To see how to install the GV-Reader Config AP and how to identify the COM port of the reader, refer to *6.1 Defining the ID Number and Setting the Reader to Slave* earlier in this installation guide

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



4. To enable external control of Beeper or LED, select **Beeper**, **Green LED** or **Red LED**.
   - **Beeper:** Enables the external control of Beeper.
   - **Green LED:** Changes the standby color from blue to green.
   - **Red LED:** Changes the standby color from blue to red.
5. Select **Master** from the Master / Slave drop-down list.
6. Select an ID number for the reader. Make sure the ID number on the GV-Reader Config AP matches the ID number set on the Extended Reader page of the GV-AS400 / 410 / 810 Web interface.
7. Click **Setup**. The settings are sent to GV-DFR1352.

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.

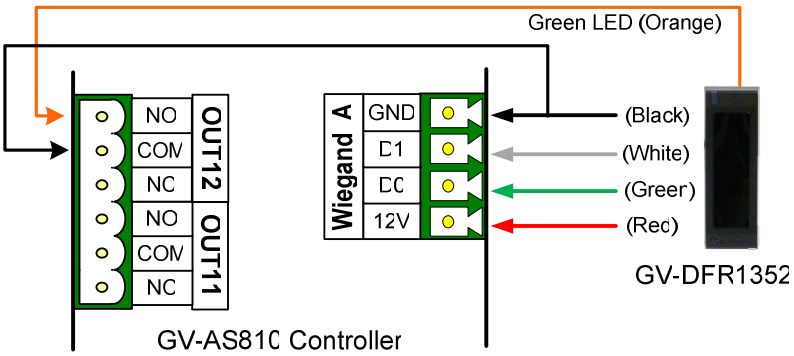
After the above settings, connect the Beeper, Red LED and Green LED wires from GV-DFR1352 to GV-AS400 / 410 / 810.

7.2 Wiring the Beeper and LED to GV-AS400 / 410 / 810

To wire the beeper and LED to GV-AS400 / 410 / 810, connect the control wires of GV-DFR1352's Beeper, Red LED or Green LED to any of outputs 9 ~ 16 on GV-AS Controller.

Wiring LED to GV-AS Controller

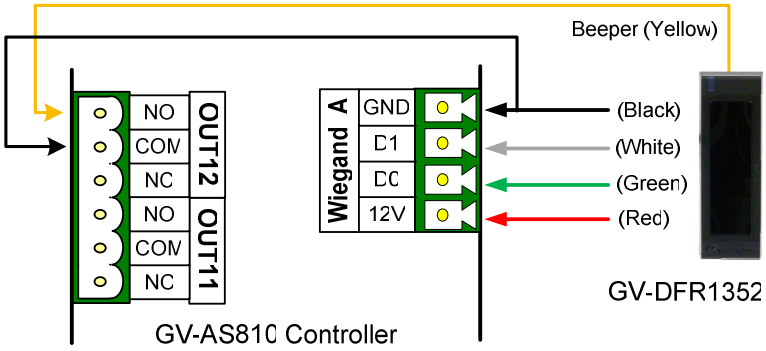
The diagram below shows the connection for wiring Green LED on GV-AS810. For Red LED, use the light red wire instead.



Wire Color	Function
Black	GND
Orange	Green LED
Light Red	Red LED

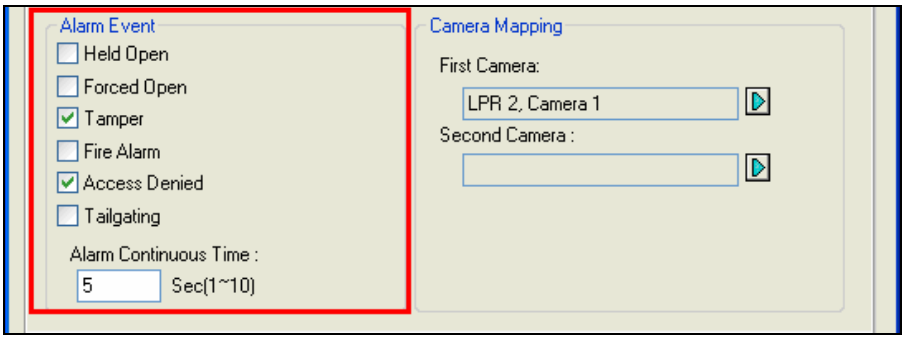
Wiring Beeper to GV-AS Controller

The diagram below shows the connection for wiring the beeper on GV-AS810.



Wire Color	Function
Black	GND
Yellow	Beeper

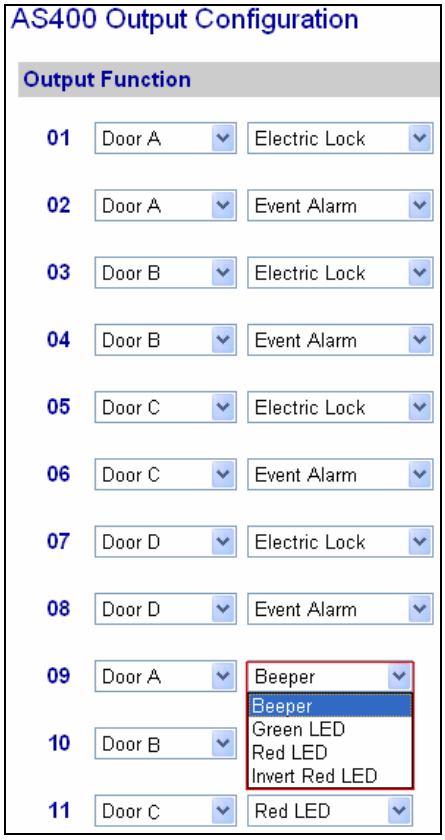
After wiring, you also need to go to GV-ASManager to select the alarm conditions that will set off the reader's beeper. In GV-ASManager, right-click the GV-AS Controller in the device list, click **Settings**, and click the **Door / Gate** tab to select the alarm conditions.



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

After connecting the wires for Beeper or LED, specify the Beeper or LED settings for each door/gate on the GV-AS400 / 410 / 810 Web interface.

1. On the controller Web interface, click **Output Setting**. The page below appears.
2. From outputs 9~12, select a door and select **Beeper**, **Green LED**, **Red LED** or **Invert Red LED**. Click **Submit**.



- **Beeper:** Enables the external control of Beeper.
- **Green LED:** Changes the standby color to blue. When a card is read, the LED flashes green.
- **RED LED:** Changes the standby color to red. When a card is read, the LED flashes blue.
- **Invert Red LED:** Changes the standby color to blue. When a card is read, the LED flashes red.

8. Firmware Upgrade

GeoVision will periodically release the updated firmware on the website. You can also find the latest firmware from the Firmware folder in the Software CD. The new firmware can be simply loaded into GV-DFR1352 by using **Update Utility** included in the Software CD.

Important Notes before You Start

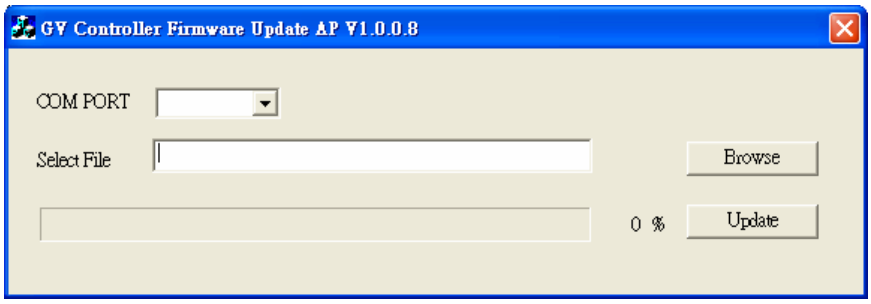
Before you start updating the firmware, please read these important notes:

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 GV-DFR1352.
3. Click the **Browse** button to locate the firmware file (.img) 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, GV-DFR1352 will be sounded twice and the LED indicator will change to green.

9. Specifications

CPU	8-bit microprocessor
Frequency	13.56 MHz for ISO14443A (Mifare DESFire, Mifare Plus and Mifare Class)
Wiegand Interface	Wiegand 26 / 34 bits, distance 30 m / 98.43 ft
RS-485	9,600 bps, connect up to 8 GV-DFR1352 units
Power	DC 7.5V – 12V
LED	Red, Green and Blue LED
Beeper	Buzzer
Reader Color	Black
Operating Temperature	-30 °C ~ 65 °C / -22 °F ~ 149 °F
Operating Humidity	10% ~ 90% (no condensation)
Dimensions (W x H x D)	20.9 x 105.6 x 20.5 mm / 0.8 x 4.2 x 0.8 in
Weight	80 g / 0.17 lb
Ingress Protection	IP66
Certification	CE, FCC, RoHS

10. The number of GV-DFR1352 supported by GV-AS Controllers

GV-AS Controller Model	**GV-DFR1352 Interface**	
	Wiegand	**RS-485**
GV-AS100	1	1
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	4	8
GV-AS400	8	8
GV-AS410 / 810	8	8