

# **GV-GF Fingerprint Reader**

# **User's Manual**



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

GF1911.1912.1921.1922-B

# 

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January 2014

# Preface

Welcome to the GV-GF Fingerprint Reader User's Manual.

This Manual applies to the following GV-GF Fingerprint Readers:

Product	Version
GV-GF1911 / 1912	V1.0
GV-GF1921 / 1922	V1.1



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# **Regulatory Notices**



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

## Class A

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

# 

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

# RoHS RoHS Compliance

The Restriction of Hazardous Substances (RoHS) Directive is to forbid the use of hazardous materials of production. To meet the RoHS Directive requirements, this product is made to be RoHS compliant.

### WEEE Compliance

This product is subject to the Waste Electrical and Electronic Equipment (WEEE) Directive and made compliant with the WEEE requirements.

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## Caution

- The fingerprint reader is designed only for indoor usage. Avoid exposing to sunshine or rains.
- To keep the fingerprint reader in good working condition, it is recommended to have regular maintenance and physical cleaning of the reader.

## **Installation Considerations**

Note the distance limitations for Wiegand and RS-485 communications:

- Wiegand interface: 30 meters (98.43 feet)
- RS-485 interface: 600 meters (1968.50 feet)

Recommended RS-485 cable: standard 485 cable (a twisted pair of 24 AWG wires)

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## Firmware and Software Compatibility

The GV-AS Controller, GV-EV48 Controller and GV-ASManager compatible with GV-GF1911 / 1912 / 1921 / 1922 are listed below.

	GV-GF1911 / 1912	GV-GF1921 / 1922
GV-ASManager	V4.0 or later	
GV-AS100 / 110 / 120	V1.06 or later	N/A
GV-AS400	V1.04 or later	N/A
GV-AS210 / 810	V1.0 or later V1.1 or later	
GV-AS410	V1.1 or later	
GV-EV48 Elevator Controller	V1.0 or later	



## **Chapter 1 Introduction**

The fingerprint reader can work with GV-AS / GV-EV Controller and GV-ASManager to create a complete access control system. Three types of operation modes are supported: Card + Fingerprint, Fingerprint Only and Card Only.

#### Card + Fingerprint Mode

With the fingerprint reader only, you can enroll and manage users through the supplied Manager Enroll Card and Delete Card, along with optional MIFARE cards.

The fingerprint templates are stored in the user card. The user gains access by scanning both his/her finger and the card. The reader compares the presented finger with digital template stored in the card. If the finger is successfully authenticated, a signal is sent to momentarily activate the door relay of the controller.

#### **Fingerprint Only Mode**

The fingerprints are enrolled through a GV-GF1911 reader installed on the computer running the GV-ASManager software using RS485 connection or through a GV-GF1921 / 1922 reader using TCP/IP connection. The fingerprint data are distributed through GV-ASManager to the assigned fingerprint readers installed on GV-AS / GV-EV Controllers for access control.

#### **Card Only Mode**

This mode requires the users to present their cards only to be granted access.

**Note:** GV-GF1921 / 1922 can also work as a standalone device. For details, see 7. *A Standalone Fingerprint Reader*.

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## 1.1 Packing List

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

#### GV-GF1911 / 1912

- Fingerprint reader x 1 (with a cable of 100 cm / 3.28 feet)
- Manager Enroll Card x 1
- Manager Delete Card x 1
- Self-Tapping Screw (M3 x 6L) x 2
- Self-Tapping Screw (M4 x 15L) x 3
- Plastic Screw Anchor x 4
- Buzzer Hole Plate
- Security Torx
- Software CD

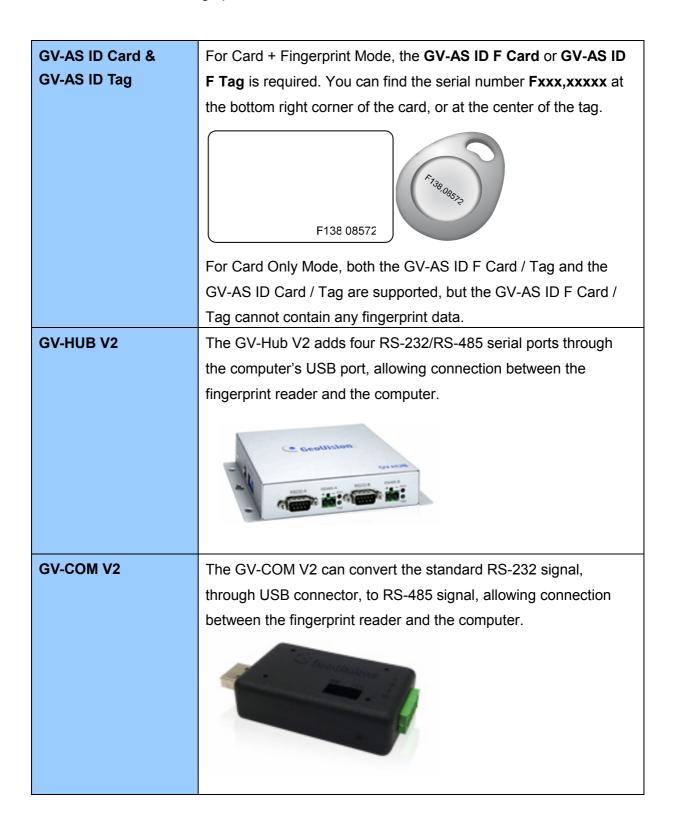
#### GV-GF1921 / 1922

- Fingerprint reader x 1
- Manager Enroll Card x 1
- Manager Delete Card x 1
- Mounting Plate x 1
- Standard Screw x 2
- Plastic Screw Anchor x 2
- Security Screw x 1
- Torx Wrench x 1
- Connector Wire x 1
- Software CD



## **1.2 Options**

You can order the following optional accessories:





-	NET/IO Card V3.1 NET/IO Card V3.2						
PC	Service Package	The package includes a USB cable for connecting the fingerprint					
FC	Service Fackage	reader to a computer and a reader mount to hold the reader for					
		fingerprint enrollment. See 7. Upgrading Firmware later.					
Not	e:						
1.	For <b>Card + Finger</b> GeoVision's user ca	<b>ngerprint Mode</b> , GV-GF Fingerprint Readers can only work with ser cards and tags.					
2.		<b>print Mode</b> , be sure that your user card has the serial number ter F; otherwise, you cannot record the fingerprints to the user card.					
3.	GV-HUB V2, GV-C	OM V2, GV-NET/IO Card and PC Service Package are only					

3. GV-HUB V2, GV-COM V2, GV-NET/IO Card and PC Service Package are only compatible with GV-GF1911 / 1912.



## **1.3 Serial Number / MAC Address**

To find the serial number of GV-GF1911 / 1912, see the **XID** number on the back of fingerprint reader.



Figure 1-1

For GV-GF1921 and GV-GF1922, you can find the MAC address on the back of the device.



Figure 1-2

You can also find the serial number (for GV-GF1911 / 1912) or the MAC address (for GV-GF1921 / 1922) using the **GV-Net Module Utility** supplied on the software CD. For details to use the utility, see *GV-Net Module Utility*, Chapter 10.

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## 1.4 Installation

Follow the steps below to install the GV-GF1921 / 1922 on wall.

1. Place the mounting plate on the wall as illustrated below.

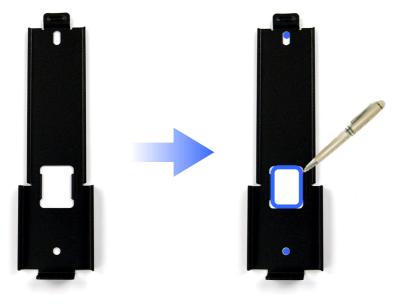


Figure 1-3

- 2. Mark the location of the 2 holes and the rectangle as labeled above.
- 3. Drill the rectangle to create a space for running the cables and wires.
- 4. At the 2 dots, drill a hole slightly smaller than the plastic screw anchors provided.
- 5. Insert the 2 plastic screw anchors in the drilled holes.
- 6. Place the mounting plate on the wall and secure with the 2 standard screws provided.



Figure 1-4



7. Place fingerprint reader on the mounting plate and thread the cables through the rectangular hole.





8. Secure the security screw on the bottom.





Figure 1-6

# **Chapter 2 Connecting GV-AS Controller**

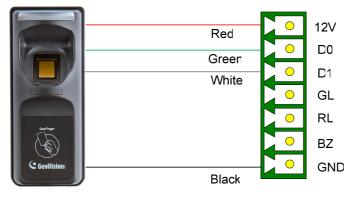
Depending on the model of the fingerprint reader, three types of communication links are provided: **Wiegand**, **RS-485** and **TCP/IP (LAN)**.

## 2.1 Connecting through Wiegand Interface

Supported models: GV-GF1911 / 1912.

## 2.1.1 Physical Connection

The fingerprint reader is connected with an unshielded 9-wire cable of 100 cm / 3.28 feet. Connect these 4 unshielded wires to the assigned pins on the Wiegand interface of the GV-AS Controller: Red, Black, White and Green wires.



GV-AS Controller Wiegand Interface



The table below shows the wire assignments of the fingerprint reader used for Wiegand connection.

Wire	Red	Black	White	Green	Yellow	Blue	Orange	Brown	Silver
Function	12V	GND	Data-1	Data-0	N/C	N/C	N/C	N/C	N/C

For the wiring of extending distance it is recommended to use the standard RS-485 cable (a twisted pair of 24 AWG wires). The maximum distance of the Wiegand output cable should be restricted to a length of 30 meters (98.43 feet).



## 2.1.2 Software Configuration

To define the fingerprint reader connected to the GV-AS Controller. On the Web interface of GV-AS Controller, click **Wiegand Setting** in the left menu. The Wiegand Configuration page appears. Select the function, e.g. Door/Gate 1 Entry, that the fingerprint reader is used for, and click **Submit**.

	AS810 Wiegand Configuration				
	Wiegand Function				
Basic Setting	Wiegand A	Door/Gate 1 Entry			
Network Setting     Other Setting	Wiegand B	Door/Gate 2 Entry			
Firmware Update	Wiegand C	Door/Gate 3 Entry 💌			
Account Setting Advanced Setting	Wiegand D	Door/Gate 4 Entry 💌			
Function Setting     Parameter Part1	Wiegand E	Door/Gate 5 Entry 💌			
Parameter Part2     Parameter Part3	Wiegand F	Door/Gate 6 Entry 💌			
Parameter Parts     Parameter Part4	Wiegand G	Door/Gate 7 Entry 💌			
<ul><li>Time Setting</li><li>Input Setting</li></ul>	Wiegand H	Door/Gate 8 Entry			
• Output 1 - 16					
Output 17 - 24     Wiegand Setting     Extended Device	Submit Cancel				

Figure 2-2

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## 2.2 Connecting through RS-485 Interface

Supported models: GV-GF1911 / 1912.

## 2.2.1 Physical Connection

Use the terminal block on the above four reader models for RS-485 connection to the GV-AS Controller.

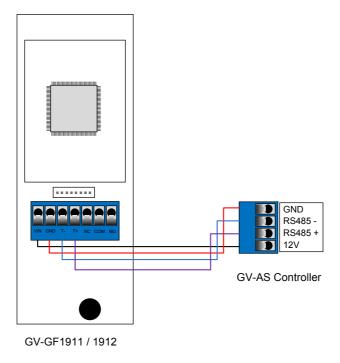


Figure 2-3

The table below shows the pin assignments of the fingerprint reader used for RS-485 connection.

Pin	VIN	GND	T-	T+
Function	12V	GND	RS-485 -	RS-485 +



## 2.2.2 Software Configuration

To define the fingerprint reader connected to the GV-AS Controller, on the Web interface of GV-AS Controller, click **Extended Reader** in the left menu. The Extended Reader Configuration page appears.

Output Setting     Wiegand Setting	GF1901/GF	GF1901/GF1902/GF1911/GF1912 Function				
Wiegand Setting     Extended Device		Serial Number	Function	Connection Status		
<ul> <li>Extended Reader</li> </ul>		360340010	Doon/Gate 1 Entry 💌			
Tailgating Setting			No Function 💌			
			No Function 🔽			
			No Function 💌			
			No Function 💌			
			No Function 💌			
			No Function 💌			
			No Function 💌			
	Submit	Cancel				

Figure 2-4

Type **Serial Number** of your fingerprint reader (See *1.3 Serial Number / MAC Address*), and select **Function** that the fingerprint reader is used for, and click **Submit**. If the fingerprint reader is detected, the **Connection Status** field will be green.

**IMPORTANT:** For RS-485 connection, make sure to check the **RS485** box before the serial number to establish connection.

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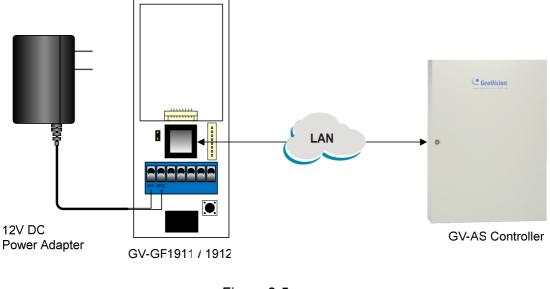
## 2.3 Connecting through TCP/IP Interface

Supported models: GV-GF1911 / 1912 / 1921 / 1922

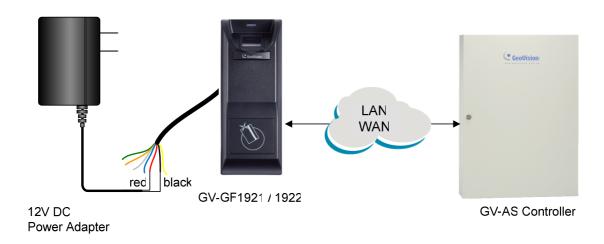
**Note:** The GV-GF1921 / 1922 can also work as a standalone device without connecting to a GV-AS Controller. For details, see *7. A Standalone Fingerprint Reader*.

## 2.3.1 Physical Connection

The fingerprint reader and GV-AS Controller can be physically connected through LAN. Prepare a 12V DC power adapter to connect the fingerprint reader to a power source.











The table below shows the pin assignments of the fingerprint reader used for power connection.

Pin	GV-GF1911 / 1912	VIN	GND
	GV-GF1921 / 1922	Red wire	Black wire
Function		12V	GND

Note:

- 1. Make sure your GV-AS Controller and GV-ASManager support the network connection with the fingerprint reader. See *Firmware and Software Compatibility*.
- 2. Instead of using a 12V DC power adapter, you also connect the fingerprint reader to GV-AS Controller for power supply.

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## 2.3.2 Accessing the Web Interface

By default, the fingerprint reader is assigned with an unused IP address by the DHCP server when the fingerprint reader is connected to the network. This IP address remains unchanged unless you unplug or disconnect your fingerprint reader from the network.

**Note:** If your router does not support DHCP, the default IP address will be **192.168.0.10**. The default login ID and password are **admin**.

Follow the steps below to look up the IP address of your fingerprint reader / GV-AS Controller and access the Web interface:

- 1. Look up the IP address using GV-Net Module Utility.
  - A. Install GV-Net Module Utility from the Software CD.
  - B. Run the utility. The **GV-Net Module Utility** window appears and automatically searches for the GV-AS Controller and GV-GF1911 / 1912 / 1921 / 1922 on the same LAN.

Search Log in	Setting Adv	anced Reboot	Default Firmware	)Update to t	Cancel qu		
Module Name	Version	Device Name	MAC Address	IP Address	Subnet Mask	Default Gate	Network A.
🗍 GV-DATA CAPTURE	V1.0.1-20090727	pos	00:13:E2:01:06:DF	192.168.3.124	255.255.248.0	192.168.0.1	Intel(R) PR.
🗍 GV-AS210	V1.0.0-20120723	Controller 1	00:13:E2:02:41:02	192.168.2.89	255.255.248.0	192.168.0.1	Intel(R) PR.
🗍 GV-AS210	V1.0.0-20120920	A5210	00:13:E2:01:D7:EA	192.168.3.29	255.255.248.0	192.168.0.1	Intel(R) PR.
🗍 GV-AS810	V1.0.0-20120920	A5810	00:13:E2:01:06:A1	192.168.3.18	255.255.248.0	192.168.0.1	Intel(R) PR.
🗍 GV-GF1911	V1.1R0	GV-3603400010	00:13:E2:FD:00:0A	192.168.3.74	255.255.248.0	192.168.0.1	Intel(R) PR.
🗍 GV-AS100(ASBox)	V1.0.6-20120204	Controller 4	00:13:E2:01:07:57	192.168.4.252	255.255.248.0	192.168.0.1	Intel(R) PR.
🗍 GV-EV16	V1.0.0-20110824		00:13:E2:01:E3:33	192.168.0.100	255.255.255.0	192.168.0.1	Broadcast
3	V1.0.3-20110701	Controller 7	00:13:E2:04:D0:EE	192.168.0.107	255.255.255.0	192.168.0.1	Broadcast
<							>



- C. Click Module Name or MAC Address to sort.
- D. Find the IP address of your device.
- 2. You can access the Web interface using any of the following method:
  - Right-click the device on GV-Net Module Utility and select Advanced Setting.
  - Type the IP address into the Web browser.
- 3. Type ID and password. The default ID and password are **admin**.

## 2.3.3 Software Configuration

To connect the fingerprint reader and GV-AS Controller through the network, you need to provide information such as a serial number, MAC address and IP address for your fingerprint reader and GV-AS Controller to locate and connect to each other.

#### A. Define fingerprint reader on GV-AS Controller.

- 1. Log in the Web interface of GV-AS Controller. For details, see 2.3.2 Accessing the Web Interface.
- 2. On the Web interface of GV-AS Controller, click **Extended Reader** in the left menu. The Extended Reader Configuration page appears.
- 3. For GV-GF1921 / 1922:

Type the **MAC address** of your fingerprint reader in the Serial Number column under the **GV-Reader/CR420/GF1921/GF1922 Function** section. Do not select the RS-485 box.

	GeoUision AS210 Extended Reader Configuration					
Ceovision:	GV-Reader/CR420/GF1921/GF1922 Function					
Basic Setting	RS485	Serial Number	Function	Connection Status		
Network Setting		ID 0 0013E2FF0A7C	Door/Gate 1 Entry 🔽			
Other Setting		ID 1 0013E2FF0A7D	Door/Gate 1 Exit 🛛 👻			
<ul> <li>Firmware Update</li> </ul>		ID 2 000012212612	Door/Gate 1 Entry 💌			
Account Setting		ID 3	No Function 🗸			
Advanced Setting		ID 4	No Function 🗸			
Function Setting     Parameter Part1		ID 5	No Function			
Parameter Part2		ID 6	No Function			
Time Setting						
Input Setting		ID 7	No Function 🛛 👻			
Output Setting	GeoFinger	Server IP Address 0.	0.0.0:	0 (from 1025 to 65535)		
Wiegand Setting	GF1901/G	F1902/GF1911/GF1912 Fur	iction			
Extended Device	RS485	Serial Number	Function	Connection Status		
<ul> <li>Extended Reader</li> </ul>			No Function 💌			

Figure 2-8

In the **GeoFinger Server IP Address** field, you can type the IP address and port of the GV-ASManager's GeoFinger Server in order for GV-ASManager to receive data from the GV-GF1921 / 1922 listed on this page during remote fingerprint enrollment. In addition, the GV-AS Controller will be connected to the GV-GF1921 / 1922 listed. You can therefore skip the steps in *B. Specify the GV-AS Controller on your fingerprint reader* if you fill in the GeoFinger Server IP Address.



#### For GV-GF1911 / 1912:

Type the **Serial Number** of your fingerprint reader in the Serial Number column under the **GF1901/GF1902/GF1911/GF1912 Function** section.

Output Setting	GF1901/GF1902/GF1911/GF1912	GF1901/GF1902/GF1911/GF1912 Function				
<ul> <li>Wiegand Setting Extended Device</li> </ul>	RS485 Serial Number	Function	Connection Status			
<ul> <li>Extended Reader</li> </ul>	360340010	Doon/Gate 1 Entry 💌				
<ul> <li>Tailgating Setting</li> </ul>		No Function 💙				
		No Function 💌				
		No Function 💌				
		No Function 💌				
		No Function 💌				
		No Function 🛛 👻				
		No Function 🛛 👻				
	Submit Cancel					

Figure 2-9

**Note:** Select the **RS-485** checkbox only if the GV-GF1911 / 1912 is connected to the controller through RS-485 connection. For TCP/IP connection, do not check the **RS485** box.

For details on how to look up the serial number or the MAC address, see *1.3 Serial Number / MAC Address*.

- 4. Use the **Function** drop-down list to specify which door the fingerprint reader is connected to.
- 5. Click **Submit**. If the fingerprint reader is detected, a green bar appears in the **Connection Status** field.



#### B. Specify the GV-AS Controller on your fingerprint reader.

- 6. Log in the Web interface of the fingerprint reader. For details, see 2.3.2 Accessing the Web Interface.
- 7. For **GV-GF1911 / 1912**, click **SETTINGS** and select **GV-AS Controller**. This page appears. Type the IP address of GV-AS Controller and click **Save**.

(	GeoUision The Vision of Security					
STATUS	SETTINGS	LOGOUT				
	(	GV-AS Controller				
	IP Address	192.168.3.18				
	Port Number 4005					
	Enable card only mode					



8. For **GV-GF1921 / 1922**, select **Other Settings**. This page appears. Type the IP address or domain name of GV-AS Controller and click **Submit**.

	Other Configuration
	GeoFinger Server configuration
Network Setting     Other Setting	IP         192         168         0         1           Port         2167         ( from 1025 to 65535 )
Firmware Update	Controller address configuration Controller is connected
Account Setting	IP address     192     168     57       Dynamic Domain Name     user.dipmap.com

Figure 2-11

If the connection is established, the message "Controller is connected" appears (Figure 2-11) and a green bar appears on in the Connection Status field of the GV-AS Controller (Figure 2-8 and Figure 2-9).

**Note:** If the fingerprint reader fails to connect to the GV-AS Controller, the reader beeps (for GV-GF1911 / 1912) or the light turns purple (for GV-GF1921 / 1922) until the connection is established.

# **Chapter 3 Fingerprint Only Mode**

The Fingerprint Only mode must work with the **GV-ASManager** software and the **GV-GF1911 / GV-GF1921 / GV-GF1922** reader to enroll fingerprints. You must first enroll fingerprint data using GV-ASManager and then upload the fingerprints to the fingerprint readers. To gain access, the user's fingerprint must match the enrolled fingerprint.

## **3.1 Enrolling Fingerprints**

There are two ways to enroll fingerprints: locally and remotely.

For **local fingerprint enrollment**, a GV-GF1911 / 1921 / 1922 needs to be connected to GV-ASManager, and the user needs to register his or her fingerprints at the site of the GV-ASManager.

For **remote fingerprint enrollment**, first enroll empty fingerprints for a user on the GV-ASManager. The user can then go to a connected GV-GF1921 / 1922 at a later time, and register his or her fingerprints using an assigned card. This function is useful when the user is not around GV-ASManager.

**Note:** The enrolled fingerprints will be saved on the fingerprint reader instead of on the GV-ASManager.

## 3.1.1 Enrolling Fingerprints Locally

There are two ways to enroll fingerprint data locally:

### • GV-GF1911: RS-485 Connection with GV-ASManager

You need to physically connect **GV-GF1911** to the computer running GV-ASManager through RS-485 connection. To establish RS-485 connection to the computer, a RS-485 to RS-232 converter, such as GV-COM, GV-Hub, GV-NET/IO Card or the USB cable in PC Service Package (optional accessory), is required.

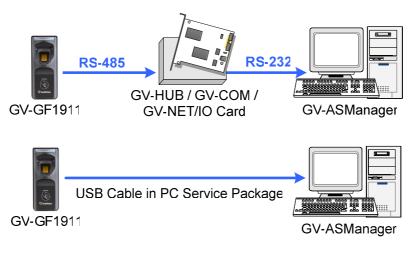
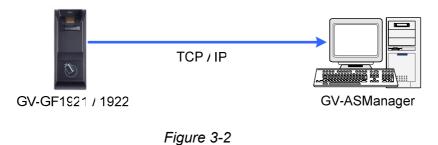


Figure 3-1

• GV-GF1921 / 1922: TCP/IP Connection with GV-ASManager GV-ASManager and GV-GF1921 / 1922 can be connected through TCP/IP connection.



#### Note:

- 1. Fingerprint enrollment does not support Wiegand connection.
- 2. After connecting GV-HUB, GV-COM, GV-NET/IO Card or USB Cable to the computer, you must install the driver from the supplied software CD.



### **Enrolling Fingerprints Locally on GV-ASManager**

Before you start enrolling fingerprints, make sure you have added cards, created user accounts and assigned cards to the users. See *4.3 Setting Cards* and *4.6 Setting User* in *GV-ASManager User's Manual.* Follow the steps below to enroll the fingerprints on the GV-ASManager.

**Note:** Each user's fingerprints need to go along with a card number. If you do not have cards or card readers, you can create virtual card numbers to represent the enrolled fingerprints.

- 1. On the menu bar of GV-ASManager, click **Personnel** and select **Users**. The User List window appears.
- 2. Double-click one user listed in the window. The User Setup dialog box appears.
- 3. Click the **Fingerprint** tab. This dialog box appears.

User Setup					×
		Description		1	
General Home Business		Fingerprint	Scan		
Connection Type	TCP/IP	•			
IP Address:	Port:			21 <u>22 1997</u>	
192.168.0.19	2167			Search	
Anti-duress:					
	-				
Left hand:	_	-			
			light hand		
Thumb:		, I	6	Thumb:	
[026] 245-1550	2 💌			[026] 245-15502	-
Forefinger:				Forefinger:	
		ī I			-
	_	·   U			
Middle finger:				Middle finger:	
[026] 245-1550	2 💌				-
Directioner				Ding financi	
Ring finger:		ı I		Ring finger:	
		1			
Little finger:				Little finger:	
	+	]			-
				34 J	
				ОК	Cancel

Figure 3-3

- 4. Establish connection between GV-ASManager and GV-GF1911 / 1921 / 1922.
  - GV-GF1911: Select COM for Connection Type and click Search to detect the GV-GF1911 connected.
  - GV-GF1921 / 1922: Select TCP/IP for Connection Type. Type the IP Address and Port of the GV-GF1921 / 1922 or you can also click Search to detect available fingerprint readers on the LAN.
- In the Left Hand and Right Hand sections, click any finger square and select Enroll Fingerprints.

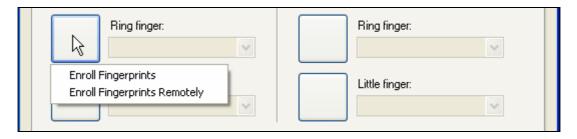


Figure 3-4

- 6. Place the specific finger on the fingerprint reader. It is required to register the same fingerprint twice to complete the enrollment. All ten fingerprints of a user can be enrolled.
- 7. Use the drop-down list to assign a card to the fingerprints.
- 8. To delete the enrolled fingerprint, place the mouse pointer on the desired fingerprint image. The 🛿 button appears. Click the button to delete the fingerprint.
- 9. For the **Anti-duress** function, select a fingerprint from the Anti-duress drop-down list. When the user is forced to open the door under threat, he can present the designated finger to activate an alarm and send a warning signal to the GV-ASManager.
- 10. Click **OK** to apply the settings.

# **GeoVision**:

## 3.1.2 Enrolling Fingerprints Remotely (GV-GF1921 / 1922 Only)

Before you start enrolling the fingerprint, make sure you have added cards, created user accounts, and assigned cards to the users. See *4.3 Setting Cards* and *4.6 Setting User* in *GV-ASManager User's Manual.* Follow the steps below to remotely enroll fingerprints on a GV-GF1921 / 1922.

- 1. On the menu bar of GV-ASManager, click **Personnel** and select **Users**. The User List window appears.
- 2. Double-click one user listed in the window. The User Setup dialog box appears.
- 3. Click the **Fingerprint** tab.
- 4. In the Left Hand and Right Hand sections, click a finger square and select **Enroll Fingerprints Remotely**.

User Setup	X
General Home Business User Define Fingerprint S	can
Connection Type	
COM Port: Device ID:	
	Search
Anti-duress:	
[L] Middle finger	
Left hand: Righ	t hand:
Thumb:	Thumb:
[026] 255-45785 💌	222 [026] 255-45785 V
Forefinger:	Forefinger:
	×
Middle finger:	Middle finger:
[026] 255-45785 V	~
Bing finger:	Bing finger:
	v l
	Linte General
Enroll Fingerprints Remotely	Little finger:
	OK Cancel

Figure 3-5

**Note:** For remote fingerprint enrollment, you do not need to select Connection Type or type the IP address of the fingerprint reader at the top of the page.

- 5. Use the drop-down list to assign a card to the empty fingerprint.
- 6. Repeat steps 4 and 5 for other fingers if needed.
- 7. To delete the empty fingerprints, place the mouse pointer on the desired finger square. The ⊠ button appears. Click the button to delete the fingerprint.
- 8. For the **Anti-duress** function, select a finger from the Anti-duress drop-down list. When the user is forced to open the door under threat, he can present the designated finger to activate an alarm and send a warning signal to the GV-ASManager.
- 9. Click **OK** to apply the settings.

Next, refer to the section below to upload the empty fingerprints to GV-GF1921 / 1922. The user can then register fingerprints anytime by swiping the assigned card and registering the same finger twice at the GV-GF1921 / 1922 specified in *Figure 3-11*.

If multiple empty fingerprints have been enrolled for the user, have the user register left hand before right hand and in the order of thumb, forefinger, middle finger, ring finger and little finger. Using Figure 3-5 as an example, register in the order of left hand thumb, left hand middle finger, right hand thumb.

#### Allowing GV-GF1921 / 1922 to Transmit Data Back to GV-ASManager

To allow GV-GF1921 / 1922 to transmit data back to GV-ASManager for remote fingerprint enrollment, you must go to the Web interface of the GV-AS Controller or the GV-GF1921 / 1922 to complete the settings below. See *2.3.2 Accessing the Web Interface* for details on how to access the Web interface.



Complete setting A OR B:

A. Go to the Web interface of the GV-GF1921 / 1922, click **Other Setting** in the left menu, and type the **IP** address and **Port** number of the GV-ASManager's GeoFinger Server.

GeoUision:	Other Configuratio		
Network Setting     Other Setting	IP Port	192 . 168 . 0 . 1 2167	( from 1025 to 65535 )



B. Go to the Web interface of the GV-AS Controller, click **Extended Reader** in the left menu, type the **IP** address and **Port** number of the GV-ASManager's GeoFinger Server.

	AS210 Extended Reader Configuration				
	GV-Reader/CR420/GF1921/GF1922 Function				
Basic Setting	RS485	Serial Number	Function	Connection Status	
Network Setting		ID 0 0013E2FF0A7C	Doon/Gate 1 Entry 💌		
Other Setting		ID 1 0013E2FF0A7D	Doon/Gate 1 Exit 🛛 🗸		
Firmware Update		ID 2 000012212612	Door/Gate 1 Entry ⊻		
Account Setting		ID 3 0013E2098347	Door/Gate 1 Entry 🗸		
Advanced Setting <ul> <li>Function Setting</li> </ul>		ID 4	No Function		
Parameter Part1		ID 5	No Function		
Parameter Part2		ID 6	No Function 💌		
Time Setting		ID 7	No Function 🗸		
<ul> <li>Input Setting</li> </ul>	Continue	Comucer ID Addresse 100		(from 400E to (FE2E)	
Output Setting			168 5 211 2167	(from 1025 to 65535)	
<ul> <li>Wiegand Setting</li> </ul>	GF1901/G	F1902/GF1911/GF1912 Fur	nction		
Extended Device	RS485	Serial Number	Function	Connection Status	
Extended Reader			No Function		

Figure 3-7

**Note:** The GeoFinger Server IP Address is the IP Address of the computer running GV-ASManager. The GeoFinger Server port can be located in GV-ASManager by selecting **Tools > Servers > GeoFinger Server**.

GeoFinge	×	
Port:	2167	
	ОК	Cancel

Figure 3-8

## **3.2 Uploading Fingerprints to Fingerprint Readers**

There are two ways to upload enrolled fingerprints from GV-ASManager to fingerprint readers.

For **GV-GF1911 / 1912**, data can be sent to the GV-AS Controller through network connection and then sent to GV-GF1911 / 1912 through RS-485.

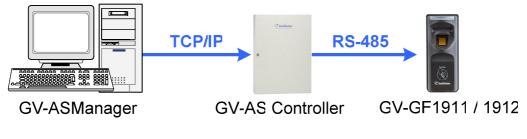
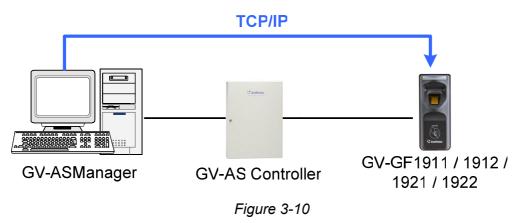


Figure 3-9

For **GV-GF1911 / 1912 / 1921 / 1922**, data can be sent directly from GV-ASManager through TCP / IP.



# **GeoVision**

To upload data from GV-ASManager to the fingerprint reader, follow the instruction below.

#### A. Connect GV-ASManager and Fingerprint Reader

- 1. On the menu bar of GV-ASManager, click **Setup** and select **Devices**.
- 2. Double-click a controller and select a **Gate** tab. This dialog box appears.

Controller Setup	
General Setup Gate 1 Gate 2 Gate 3 Gate 4 Gate 5 Gate 6 Gate 7 Gate 8	
General ✓ Set Door Info Name: Password : Lock Reset Time : Held Open Time :	Door 1         ••••       4~8 digits(0~9)         5       Sec(1~255)         5       (Handicap Card)         10       Sec(5~9999)         10       (Handicap Card)
Lock Card Time: Entrance: Exit:	0 Sec(0~65535) 0 Sec(0~65535)
Fire Action : Reader's Keypad ✓ Entrance ✓ Exit Auto Check Out Entrance Exit GeoFinger ✓ Entrance 192.168.0.19 : 2167 ♪ ✓ Exit 192.168.0.9 : 2167 ♪	Unchange       ✓         Anti-Passback       □         □ Local Anti-Passback       □         □ Globe Anti-Passback       □         □ Bobe Anti-Passback       □         □ Two-Person Rule       □         □ Entrance       □         □ Exit       □         Interlock       ✓         □ Time Clock       ▲uthentication Schedule
Alarm Event ☐ Held Open ☐ Forced Open ☑ Tamper ☐ Fire Alarm ☑ Access Denied ☐ Tailgating Alarm Continuous Time : 5 Sec(1~10)	Camera Mapping First Camera: LPR 2, Camera 1 Second Camera :
	OK Cancel

Figure 3-11

3. If your fingerprint reader is connected to GV-AS Controller through RS485 (Figure 3-4), select **Entrance** or **Exit** under GeoFinger section without typing an IP address/MAC address or serial number.

If your fingerprint reader is connected to GV-AS Controller through TCP/IP, define the fingerprint reader. Under GeoFinger section, select **Entrance** or **Exit** and type the fingerprint reader's **IP address** and **port** or the following information:

- For GV-GF1911 / 1912, type **gv-** and the 10-digit serial number. For example: GV-0123456789
- For GV-GF1921 / 1922, type the machine name (Fig 8-1). For example: GV-0013e2ff0a76

For details on looking up the IP address, serial number or machine name, see 2.3.2 *Accessing the Web Interface*.

#### B. Select and Upload Fingerprints Data from GV-ASManager to Fingerprint Readers

4. On the menu bar of GV-ASManager, click **Setup** and select **Fingerprint Access**. This dialog box appears.

Controller 9	Cardholder	Fingerprint	Card Number		Cardh	Fingerprint	Card Number	Ca
9 D15-01 Trading F 😑					🖆 Dilys	[L] Thumb	2222222222	32
					💼 үт	[L] Forefinger	3093696133	32
9 D15-03 Staircase					🖆 And	[L] Forefinger	1960448955	32
9 D15-10 Meeting Controller 10						[R] Forefinger	2970242693	32
						[L] Forefinger	3103362693	32
10 D16-46 Door Le						[R] Forefinger	3082653317	32
10 D16-45 Door Le					🖹 Eric	[L] Thumb	3150286469	32
Controller 12				<- Add	🗐 🖆 Jesli	[L] Forefinger	3171700357	32
4					💼 Jo Jo	[R] Thumb	2980974213	32
						[R] Forefinger	3179826821	32
Irvine				Remove ->		[L] Forefinger	2953203333	32
					Adel	[L] Forefinger	3138621061	32
					🖆 Shiel	[L] Thumb	3141242501	32
					🖻 Kelly	[L] Forefinger	3071512197	32
					🖆 Dot	[L] Thumb	2006062011	32
					💼 Dot	[L] Forefinger	2050429883	32
					💼 Ah	[L] Forefinger	2145203131	32
					🖆 Ang	[L] Forefinger	2044138427	32
	1		•			[R] Forefinger	2061882299	32

Figure 3-12

- 5. To upload the fingerprints to a door or a controller, select the desired Door/Gate or controller in the top-left panel. If you have assigned multiple controllers to a door group, select the desired door group in the bottom-left panel. See *Uploading Fingerprints to Controllers Using Door Groups* later in this chapter to see how to set up door groups.
- 6. Select the desired fingerprint data on the right side. The **Add** button becomes available.
- Click the Add button to upload the selected fingerprint data to the selected Door/Gate or door group. When the uploading is complete, check marks will appear in the In (Enter) or Out (Exit) columns. The resulting window after uploading may look like this:

Controller 9	Cardh	Fingerpr	Card N	C	In	Out		Cardh	Fingerprint	Card	Ca
Gate A	🖆 Dot	[L] Thu	200606	32	$\bigcirc$	$\odot$		🖆 Dilys	[L] Thumb	31033	32
Gate B	🖻 Dily	[L] Thu	222222	32	$\bigcirc$	$\bigcirc$		🖆 үт	[L] Forefinger	30826	32
Gate C	🖆 Dot	[L] Foref	205042	32	$\bigcirc$	$\bigcirc$			[L] Forefinger		32
Gate D Controller 10	🖹 Kell	[L] Foref	307151	32	$\bigcirc$	$\odot$		🖆 John	[R] Forefinger	31717	32
10 D16-57 VIP Con	🖆 An	[L] Foref	196044	32	$\bigcirc$	$\odot$		🖆 Iren	[L] Forefinger	29809	32
10 D16 /6 Deer Le	🖄 ҮТ	[L] Foref	309369	32	$\bigcirc$	$\bigcirc$	<- Add	🖆 Lydi	[R] Forefinger	31798	32
4 III	🖆 Joh	[R] Fore	297024	32	$\bigcirc$	$\bigcirc$		🖆 Eric	[L] Thumb	29532	32
📲 Taipei								🖆 Jesli	[L] Forefinger	31386	32
Irvine							Remove ->	💼 Jo Jo	[R] Thumb	31412	32
								🖆 Zhe	[R] Forefinger	21452	32
								💼 Shirl	[L] Forefinger	20441	32
								🖆 Adel	[L] Forefinger	20618	32
								🖆 Shiel	[L] Thumb	19336	32
								🖆 Kelly	[L] Forefinger	20831	32
	•					•		1			

Figure 3-13

#### Tip:

- 1. If some green checkmarks are missing in the **In** or **Out** columns, right-click the door / gate in the Device View on the main screen, and select **Sync GeoFinger** to re-upload the data.
- 2. Each fingerprint reader can store up to 1,900 fingerprints.

## **3.3 Uploading Fingerprints Using Door Groups**

When a large number of GV-AS Controllers are connected to the GV-ASManager, you can organize the GV-AS Controllers into different door groups. Using door groups, you can quickly upload fingerprints to all the GV-AS Controllers in a door group instead of uploading to each controller one by one.

1. On the menu bar of GV-ASManager, click **Setup** and select **Door groups**. This window appears and the connected controllers are listed on the right.

Door Group Settings	-	
<b>○ ○</b>   <b>=</b> <u>i</u>		
	Controller 9 Gate A Gate B Gate C Gate D Controller 10	× III
	Remove -> Gate 57 Gate 46 Gate 45 Controller 12 Area 1 Area 2 D16-20 III	-

Figure 3-14

- 2. Click the **Add Group** button <sup>(C)</sup>. A new group is created.
- 3. Click the new group and click the **Rename Group** button <sup>III</sup> to rename the group.
- 4. Select the door group and then select the controllers to add to the group.
- 5. Click the Add button. The selected GV-AS Controllers are now assigned to the group.

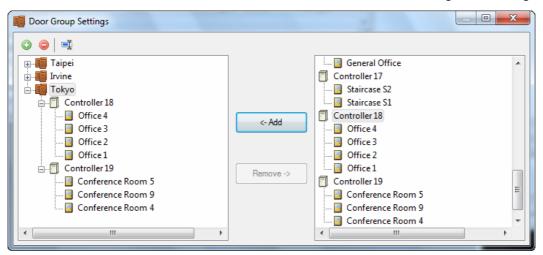


Figure 3-15

## **3.4 Using the Fingerprint Reader**

After you connect the fingerprint reader to the controller and enroll the fingerprints, scan your finger to gain access.

- 1. If the presented fingerprint matches any record in the fingerprint reader, the light will turn from blue to green. Access signal will be passed to the controller and the access will be granted.
- 2. If the presented fingerprint does NOT match the record in the fingerprint reader, the light will turn from steady blue to yellow and the reader will beep for three times. Then the light will come back to a steady blue. The reader will not pass access signal to the controller and the access will be denied.

**Note:** The light on fingerprint reader turns red if the access is not within the established schedule on GV-AS Manager.

## **Chapter 4 Card + Fingerprint Mode**

### 4.1 Enrollment

The user's fingerprints are stored in the user card and each user card can store up to 2 fingerprints. The user must gain access by scanning both the user card and the finger.

#### **Cards Required for Enrollment**

- Manager Enroll Card (supplied in the package)
- User Card

**Note:** For **Card + Fingerprint Mode**, GV-GF Fingerprint Readers can only work with GV-AS ID F cards and tags. Every GV-AS ID F card or tag can only store 2 fingerprints.

MANAGER	Step 1:
PARALL CARD	In the standby mode, the light is blue on.
ENTROLL CARD	Present the Manager Enroll Card. The light
Cocultain	starts blinking green.
USER CARD USER CARD Constant	Step 2: Present the User Card till the light blinks blue. Or present the Manager Enroll Card to exit the enroll mode.

#### **Enrollment Procedure**







#### Step 3:

### GV-GF1911/1912

With the light blinking blue, scan your fingerprint and withdraw when the reader beeps. The light turns green and then back to blue again.







Scan the same fingerprint again till beep, and withdraw your finger. The light again turns green and then blinks green.

**Note:** It is required to scan the same fingerprint twice to complete the enrollment.



#### GV-GF1921 / 1922

With the light blinking blue, scan your fingerprint and withdraw only when your hear a long beep. The light blinks blue, signifying that one fingerprint has been enrolled.

**Step 4: GV-GF1911 / 1912** To enroll the second fingerprint, repeat step 3.

### GV-GF1921 / 1922

To enroll the second fingerprint, press another finger on the reader while the light blinks blue. Withdraw your finger when the reader beeps. The light shall blink green.





#### Step 5:

Present the User Card to record fingerprints till beep. The light turns green and then steady blue.

The enrollment is complete and you can use the Card Plus Fingerprint on the fingerprint reader.

#### Note:

- 1. You will need the corresponding user card when deleting an individual user. Once you lose the user card, you cannot delete its related user from the reader.
- 2. The new fingerprints enrolled will replace the existing enrolled fingerprints.

### 4.2 Deletion

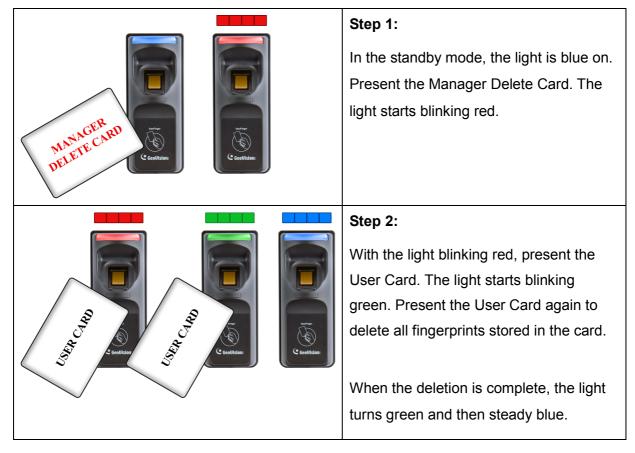
Card data will be deleted from the reader and fingerprint templates will be erased from the user card.

#### **Cards Required for Deletion**

- Manager Delete Card (supplied in the package)
- User Card

**Note:** For **Card + Fingerprint Mode**, GV-GF Fingerprint Readers can only work with GV-AS ID F cards and tags.

#### **Deletion Procedure**



### 4.3 Using the Fingerprint Reader

After you connect the fingerprint reader to the controller, present the user card. The light on the reader will start blinking blue. Then scan your finger to gain access.

- 1. If the presented fingerprint matches any record in the card, the light will turn from blue to green. Access signal will be passed to the controller. The access will be granted.
- 2. If the presented fingerprint does NOT match the record in the card, the light will turn from steady blue to blinking red and beep for three times. Then the light will come back to a steady blue. The reader will not pass access signal to the controller. The access will be denied.

**Note:** The light on fingerprint reader turns red if the access is not within the established schedule on GV-AS Manager.

## **Chapter 5 Card Only Mode**

This Card Only mode allows the users to gain access with a card. This mode is only supported by the fingerprint reader using MIFARE cards or GV-AS ID Cards / Tags.

For **GV-GF1911 / 1912**, if you are not using the GeoVision user card and tag, you need to access the Web interface and select **Enable card only mode** to enable the function. To access the Web interface, see 2.3.2 Accessing the Web Interface to find the fingerprint reader's IP address for login.

GeoU		
STATUS SETTIN	GS LOGOUT	
	GV-AS Controller	
IP Address		
Port Number		
	Enable card only mode	
	Save Reset	

Figure 5-1



### **5.1 Enrollment**

Before enrollment, establish a user account and assign a card to the user on the connected GV-AS Manager. For details, see *4.3 Setting Cards* and *4.6 Setting User* in *GV-ASManager User's Manual*.

To enroll, use a MIFARE card and follow the procedure below.

	Step 1:
MANAGER PAROLL CARD EAROLL CARD Coulision	In the standby mode, the light is blue on. Present the Manager Enroll Card. The light starts blinking green.
	Step 2:
	Present the User Card till the light blinks blue.
	Or present the Manager Enroll Card to exit the
USER CARD Coulision	enroll mode.
	Step 3:
	With the light blinking blue, present the User
	Card again to confirm. The light turns steady
USER CARD Creatition	blue and the enrollment is complete.

### **5.2 Deletion**

To delete the access right of a card, inactivate or delete the user account established on the GV-AS Manager. For details, see *4.3 Setting Cards* and *4.6 Setting User* in *GV-ASManager User's Manual.* 

## **5.3 Using the Fingerprint Reader**

After you connect the fingerprint reader to the controller, present the card you enrolled.

- 1. If the card is detected as an enrolled card, the light will turn from blue to green. The access signal will be passed to the controller and the access will be granted.
- 2. If the card does not match any of the enrolled cards, the light will turn from blue to red. The access will be denied.

**Note:** The light on fingerprint reader turns red if the access is not within the established schedule on GV-AS Manager.

## **Chapter 6 Connecting an Alarm Device**

You can connect one output device like a siren to the reader for warning when the access is granted.

### 6.1 GV-GF1911 / 1912

The example below illustrates the connection of an output device to the fingerprint reader. Connect (+) point of the output device to **COM** of the fingerprint reader, connect the (-) points of the output device and the external power supply together, and connect the (+) point of the external power supply to **NO** or **NC** of the fingerprint reader based on the state of the output device.

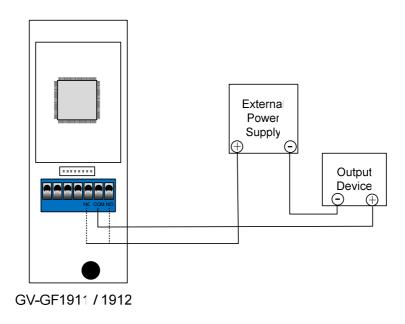


Figure 6-1



### 6.2 GV-GF1921 / 1922

Connect (+) point of the output device to the yellow wire (**COM**) of the fingerprint reader, connect the (-) points of the output device and the external power supply together, and connect the (+) point of the external power supply to the pink wire (**NO**) or the orange wire (**NC**) of the fingerprint reader based on the state of the output device. For a door sensor, connect the blue wire to the sensor.

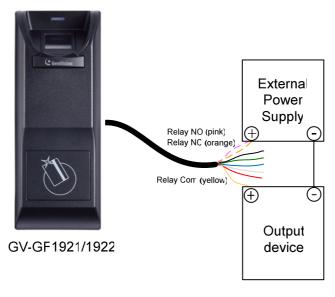


Figure 6-2

#### **Wire Definition**

Wire Color	Definition
Orange	Relay NC
Pink	Relay NO
Yellow	Relay Com

## **Chapter 7 A Standalone Fingerprint Reader**

The **GV-GF1921 / 1922** can also work on its own without connecting to GV-AS Controller and GV-AS Manager.

## 7.1 Physical Connection

Connect the input and output devices with the data cable. Each **GV-GF1921 / 1922** can connect to 2 inputs (1 door sensor and 1 button) and 1 output (door relay).

#### **Data Cable**

Wire Color	Definition
Red	+12V
Black	GND
Green	IN1 (only for button input)
Blue	IN2 (only for door sensor)
White	IN Com
Orange	Relay NC
Pink	Relay NO
Yellow	Relay Com

### 7.2 Enabling the Local Mode

Make sure you activate local mode function of the GV-GF1921 / 1922 and configure related settings from its Web interface. To restrict enrollment and deletion to one enroll card and one delete card, type the identification number of your card. For more details, see *Local mode configuration*, *8.2 Other Settings*.

Other Configuration		
GeoFinger Server configuration		
IP 192 168	. 0 . 1	
<b>Port</b> 2167		( from 1025 to 65535 )
Master Enroll/Delete Card Numb	er Configuration	
Enroll Card Number	06343404	
Delete Card Number	06747900	
Door Button (IN1) setting	Normal Open	○ Normal Close
Door Sensor (IN2) setting	Normal Open	○ Normal Close
Lock Reset Time	1	( from 1 to 255 )
Held Open Time	5	( from 5 to 9999 )
Local mode configuration		
Local mode	ble	

Figure 7-1

### 7.3 Fingerprints and Card Enrollment

After you have connected your GV-GF1921 / 1922 to power and I/O devices, you are ready to enroll fingerprints or cards with fingerprints. The standalone GV-GF1921 / 1922 supports the **Fingerprint Only Mode**.

### 7.3.1 Fingerprint Only Mode

Use any MIFARE card during enrollment for this mode.

- To enroll fingerprints, follow the steps in *4.1 Enrollment*.
- To delete enrolled fingerprints, see 4.2 Deletion.
- To obtain access, see 3.4 Using the Fingerprint Reader.

**Note:** For this mode, it is still required to use the user cards to enroll fingerprints because each uesr's fingerprints need to go along with a card number. However, the enrolled fingerprints are stored on the reader instead of the cards.

## Chapter 8 Web Interface for GV-GF1921 / 1922

The GV-GF1921 / 1922 can be configured through the Web interface. For details on accessing the Web interface, see *2.3.2 Accessing the Web Interface*.

### 8.1 Network Settings

Network Configuration	
Machine Name	
Machine Name	GV-0013e2098347
Data Transmission Port	
Port Number	2167 (from 1025 to 65535, require a reboot)
DHCP Client	
⊙ Enable	
O Disable	
IP Address	192 168 5 167
Subnet Mask	255 . 255 . 248 . 0
Default Gateway	192 . 168 . 0 . 1
Domain Name Server	8.8.8.8
Domain Name Service	
⊙ Disable	
○ Enable DDNS	GeoVision DDNS GeoVision DDNS
Host Name	user.dipmap.com
User Name	
Password	
Status:	
Submit Cancel	

Figure 8-1

#### [Machine Name]

The device name is displayed. Click the space to change the device name.

#### [Data Transmission Port]

Make sure this port matches the port you defined for the reader on the Controller Setup page of the GV-ASManager.

GeoFinger		
Entrance		
192.168.4.28	2167	
Exit		Time Clock
IP Address	2167	Authentication Schedule

Figure 8-2

#### [DHCP Client]

By default, the DHCP service is enabled and when the fingerprint reader is connected to the network, it is automatically assigned an unused IP address by the DHCP server. This IP address remains unchanged unless the fingerprint reader is disconnected and reconnected to the network. If the router does not support DHCP, the default IP address will be **192.168.0.10**.

To designate a fixed IP address, select **Disable** and specify the **IP Address**, **Subnet Mask**, **Default Gateway** and **Domain Name Server**.

**Tip:** You can also configure the Machine Name and IP address settings using the GV-Net Module Utility. From the GV-Net Module Utility window, double-click the device name/IP address to configure.

Search	Log in Setti		Reboot Defau	3333333	) Update to	Cancel qu				
Module Name	Version	Device Name	MAC Address	IP Address	Subnet Mask	Default Ga	Network	Action	Status	Progress
GV-AS410	V1.1.0-20130326	GV-A5410	00:13:E2:02:55:BD	192.168.4.23	255.255.248.0	192.168.0.1	Marvell Yu		Log in first	
🗍 GV-EV48	V1.0.0-20130607	GV-EV48-Rick	00:13:E2:02:36:95	192.168.5.192	255.255.248.0	192.168.0.1	Marvell Yu		Log in first	
🗍 GV-AS210	V1.1.0-20121220	Controller 1	00:13:E2:FF:1B:8F	192.168.4.195	255.255.248.0	192.168.0.1	Marvell Yu		Log in first	
GV-AS210	V1.1.0-20130528	GV-A5210	00:13:E2:01:C6:54	192.168.5.195	255.255.248.0	192.168.0.1	Marvell Yu		Log in first	
🗍 GV-AS400	V1.0.4-20120815	Controller 2	00:13:E2:01:00:B4	192.168.3.15	255.255.248.0	192.168.0.1	Marvell Yu		Log in first	
GV-GF-1922	V1.0.0-20130523	GV-0013e2ff0a76	00:13:E2:FF:0A:76	192.168.5.64	255.255.248.0	192.168.0.1	Marvell Yu		Login su	
🗍 GV-GF-1921	V1.0.0-20130523	GF1921	00:13:E2:FF:0A:84	192.168.4.192	255.255.248.0	192.168.0.1	Marvell Yu		Log in first	
🗍 GV-GF-1921	V1.0.0-20130523	GF-1921	00:13:E2:FF:0A:7C	192.168.4.142	255.255.248.0	192.168.0.1	Marvell Yu		Log in first	
										T

Figure 8-3

#### [Domain Name Service]

The Dynamic Domain Name System (DDNS) provides a convenient way of accessing the fingerprint reader when using a dynamic IP. The DDNS assigns a domain name to the fingerprint reader so that the user can log in the Web interface using the domain name, without checking the IP address every time.

To activate this function:

- 1. Select Enable DDNS.
- 2. Click **GeoVision DDNS** to register for a host name or select the service provider (**GeoVision DDNS** or **DynDNS.org**) you have registered, using the drop-down list.
- 3. Type the Host Name, User Name and Password to enable the DDNS service.
- 4. Click Submit.

### 8.2 Other Settings

Other Configuration		
GeoFinger Server configuration		
IP 0 0	0 0	
Port 2167		( from 1025 to 65535 )
Master Free WD date Coul Number Co	- <b>C</b> 41	
Master Enroll/Delete Card Number Co	niiguration	
Enroll Card Number	06343404	
Delete Card Number	06747900	
Door Button (IN1) setting	Normal Open	○ Normal Close
Door Sensor (IN2) setting	Normal Open	O Normal Close
Lock Reset Time	1	( from 1 to 255 )
Held Open Time	5	( from 5 to 9999 )
Local mode configuration		
Local mode ③ Enable 〇 Disable	e	
Mac Address / Firmware Version		
Mac Address	00:13:e2:09:83:47	
Firmware Version	V1.1.0-20131220	
Finger module information		
number of enrolled fingerprint templates	2	
Reboot System / Set Default		
Reboot System	Reboot	
Default Value	Default	
Submit Cancel		

Figure 8-4

#### [GeoFinger Server Configuration]

Type the IP address and Port of the GV-ASManager in order for GV-GF1921 / 1922 to transmit registered fingerprints to GV-ASManager for remote fingerprint enrollment. The default port is **2167**.



**Note:** Make sure this port matches the GeoFinger Server port on the GV-AS Manager. (**GV-ASManager** > **Tools** > **Servers** > **GeoFinger Server**)

GeoFinge	r Server	×			
Port:	2167				
	OK Cancel	]			
Figure 8-5					

#### [Controller address configuration]

Type the IP address or the domain name of the GV-AS Controller to connect. This option is only available when **Local Mode** is disabled.

Other Configuration					
GeoFinger Serv	GeoFinger Server configuration				
IP	192 . 168 . 0 .	1			
Port	2167	( from 1025 to 65535 )			
Controller addr	ess configuration Con	troller is connected			
<ul> <li>⊙ IP address</li> <li>○ Dynamic D</li> </ul>	omain Name user.dipr	168 . 5 . 57 nap.com			
Local mode configuration					
Local mode O Enable ③ Disable					

Figure 8-6

[Master Enroll / Delete Card Number configuration] This section is only available when Local Mode is enabled.

- Enroll / Delete Card Number: To restrict enrollment and deletion to one enroll card and one delete card, type the identification number of your card
- **Door Button Setting:** Specify the input states (**Normal Open** or **Normal Close**).
- Lock Reset Time: Sets the duration (in seconds) that a door/gate remains open until it is locked again. The default is 1 second. For example, if the Lock Reset Time is 5 seconds, and access is granted, the door/gate will be automatically locked after 5 seconds.

Held Open Time: Sets the duration (in seconds) that the door/gate can be held opened before an alarm is generated. The default is 5 seconds. For example, if the Held Open Time is 3 seconds, the fingerprint reader will beep when the door is held open for more than 3 seconds.

#### [Local mode configuration]

The GV-GF1921 / 1922 can function as a standalone device without connecting to GV-AS Controller and GV-AS Manager. This function is disabled by default. To enable this function, select **Enable**.

#### [MAC Address / Firmware Version]

Shows the device's MAC address and firmware version.

#### [Finger module information]

Indicates the number of fingerprints enrolled.

#### [Reboot System / Set Default]

Click the **Reboot** button to reboot the device. The fingerprint reader beeps when the reboot is complete.

Click the **Default** button to restore the default settings. A confirmation dialog box appears to request for closing the Web interface. Click **Yes** to start loading the default settings. The fingerprint reader beeps when the restoration is complete.

### 8.3 Firmware Update

You can upgrade your device firmware through the Web interface. For details, see 9. *Upgrading Firmware*.

## 8.4 Account Settings

Security Configuration	
Account:	
Account Name	admin
Password:	
Password Change Password Confirm	
Submit Cancel	

Figure 8-7

#### [Account]

Click to change the account name (login ID). The default login ID is **admin**.

#### [Password]

The default password is **admin**. To change the password, type the new password in **Password Change**, type the new password again in **Password Confirm** and click **Submit**. The password must be within 4 to 12 characters



## **Chapter 9 Upgrading Firmware**

Upgrade your fingerprint reader firmware to the new version.

### 9.1 GV-GF1911 / 1912

For the user of **GV-GF1911 / 1912**, firmware upgrade is done through the **AutoISP** software, which is available on the software CD. The AutoISP software will detect the current version of your fingerprint reader and then automatically upgrade it to the new version.

### 9.1.1 Connecting to a Computer

You need to connect the fingerprint reader to a computer for firmware upgrade. For this connection, one of these optional accessories is required: a **USB cable** (see *PC Service Package, 1.2 Options*), **GV-HUB** or **GV-COM**.

#### Using the USB Cable

Using the USB cable from the optional PC Service Package, connect the fingerprint reader to a computer as illustrated below.

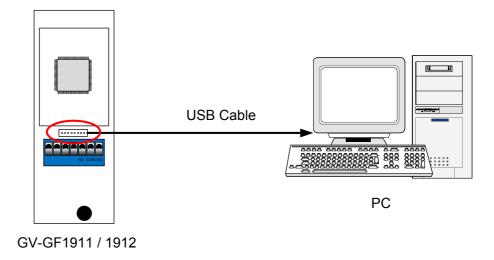


Figure 9-1

#### Using the GV-HUB or GV-COM

- 1. Connect the fingerprint reader to a computer through a GV-COM or GV-HUB, which provides the RS-485 to RS-232 function.
- Power on the fingerprint reader. You can connect the **12V** and **GND** wires from the GV-AS Controller to the fingerprint reader. The diagram below illustrates the connection among fingerprint reader, GV-COM / GV-HUB and a computer. You can also prepare a **12V DC Power Adapter** to connect the fingerprint reader to a power source.

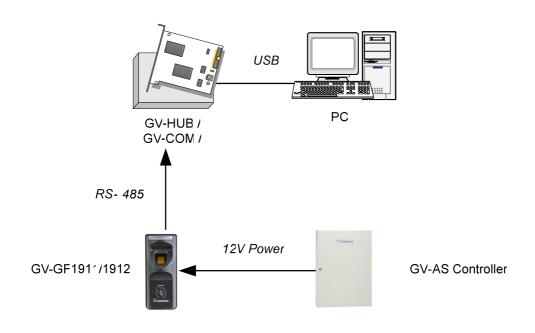


Figure 9-2



### 9.1.2 Installing Software

To upgrade the firmware for the fingerprint readers, you need to install the **AutoISP** software from the software CD to the dedicated computer. To install firmware upgrade software, follow the steps below:

1. Insert the software CD to the computer. It runs automatically and the following window pops up.



Figure 9-3

- 2. Select Install GV-GF Fingerprint Reader Utility to install the AutoISP.
- 3. Run **AutoISP**. This dialog box appears.

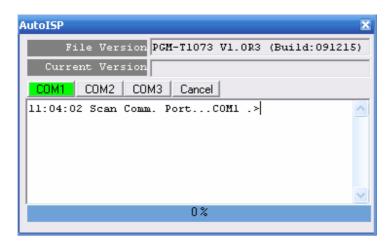


Figure 9-4

- 4. Wait for the **AutoISP** detecting the COM port that the fingerprint reader is connected to and automatically upgrading the firmware.
- 5. When the **AutoISP** automatically finishes firmware upgrading, the current version number shown in the dialog box will match the file version number. Click is to close the dialog box.

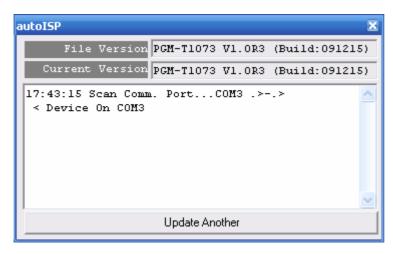


Figure 9-5

### 9.1 GV-GF1921 / 1922

The GV-GF1921 / 1922 can be upgraded through the Web interface or GV-Net Module Utility.

### **9.2.1 Upgrading Firmware through the Web Interface**

- 1. Install the **GV-Net Module Utility** from the Software CD.
- 2. Run the **GV-Net Module Utility** and the GV-Net Module Utility window appears. It automatically searches for GV-AS Controller and GV fingerprint readers under the same LAN.
- 3. Right-click your fingerprint reader and select **Log in**. This dialog box appears.

Log in		X
Login ID:	admin	
Password:	•••••	
	ОК	Cancel

Figure 9-6

4. Type the username and password to log in. The buttons on the GV-Net Module Utility become accessible.

GvNetModul	le Utility		Reboot Defau	2333333	Update to	Cancel qu		
Module Name	Version	Device Name	MAC Address	IP Ad 🔺	Subnet Mask	Default Gateway	Network A	Act
🗍 GV-AS400	V1.0.4-20120815	Controller 2	00:13:E2:01:00:B4	192.168.3.15	255.255.248.0	192.168.0.1	Marvell Yuk	
GV-AS210	V1.1.0-20130515	Controller 1	00:13:E2:01:D7:EA	192.168.3.106	255.255.248.0	192.168.0.1	Marvell Yuk	
GV-EV48	V1.0.0-20130521	elevator 1	00:13:E2:04:D0:B8	192.168.3.114	255.255.248.0	192.168.0.1	Marvell Yuk	
GV-EV48	V1.0.0-20130515	48	00:13:E2:02:36:90	192.168.3.184	255.255.248.0	192.168.0.1	Marvell Yuk	
GV-A5210	V1.1.0-20130326	GV-AS210	00:13:E2:01:C6:54	192.168.3.246	255.255.248.0	192.168.0.1	Marvell Yuk	
GV-AS410	V1.1.0-20130326	GV-AS410	00:13:E2:02:55:BD	192.168.4.23	255.255.248.0	192.168.0.1	Marvell Yuk	
GV-GF-1922	V1.0.0-20130506	GV-0013e2ff0	00:13:E2:FF:0A:76	192.168.4.28	255.255.248.0	192.168.0.1	Marvell Yuk	
GV-GF-1921	V1.0.0-20130506	GV-RICK-1921	00:13:E2:FF:0A:80	192.168.4.88	255.255.248.0	57.57.57.57	Marvell Yuk	
GV-GF-1922	V1.0.0-20130522	GV-0013e2ff0	00:13:E2:FF:0A:7A	192.168.4.203	255.255.248.0	192.168.0.1	Marvell Yuk	
(								>
eady								I.

Figure 9-7



5. On GV-Net Module Utility window, click the **Firmware Upgrade** button. This dialog box appears.

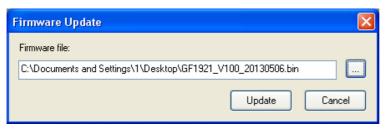


Figure 9-8

6. Select a firmware file and click **Update** to start upgrading. You can see the upgrade progress on the GV-Net Module Utility window. The fingerprint reader beeps when the upgrade and reboot are complete.

Search	Log in Sett		Reboot Defau		Update to t	Cancel qu				
Aodule Name	Version	Device Name	MAC Address	IP Ad 🔺	Subnet Mask	Default Gat	Network A	Action	Status	Progress
GV-AS400	V1.0.4-20120815	Controller 2	00:13:E2:01:00:B4	192.168.3.15	255.255.248.0	192.168.0.1	Marvell Yuk		Log in first	
GV-AS210	V1.1.0-20130515	Controller 1	00:13:E2:01:D7:EA	192.168.3.106	255.255.248.0	192.168.0.1	Marvell Yuk		Log in first	
GV-EV48	V1.0.0-20130521	elevator 1	00:13:E2:04:D0:B8	192.168.3.114	255.255.248.0	192.168.0.1	Marvell Yuk		Log in first	
GV-EV48	V1.0.0-20130515	48	00:13:E2:02:36:90	192.168.3.184	255.255.248.0	192.168.0.1	Marvell Yuk		Log in first	
GV-A5210	V1.1.0-20130326	GV-A5210	00:13:E2:01:C6:54	192.168.3.246	255.255.248.0	192.168.0.1	Marvell Yuk		Log in first	
GV-A5410	V1.1.0-20130326	GV-A5410	00:13:E2:02:55:BD	192.168.4.23	255.255.248.0	192.168.0.1	Marvell Yuk		Log in first	
GV-GF-1922	V1.0.0-20130506	GV-0013e2ff0	00:13:E2:FF:0A:76	192.168.4.28	255.255.248.0	192.168.0.1	Marvell Yuk	Firmware Update	Firmware Updatin	
GV-GF-1921	V1.0.0-20130506	GV-RICK-1921	00:13:E2:FF:0A:80	192.168.4.88	255.255.248.0	57.57.57.57	Marvell Yuk		Log in first	
GV-GF-1922	V1.0.0-20130522	GV-0013e2ff0	00:13:E2:FF:0A:7A	192.168.4.203	255.255.248.0	192.168.0.1	Marvell Yuk		Log in first	

Figure 9-9

## **Chapter 10 GV-Net Module Utility**

With the GV-Net Module Utility included in Software DVD, you can change settings and update the firmware of GV-AS Controller, fingerprint readers and GV-AS Manager.

- Insert Software DVD, select Install GeoVision Access Control System, click GV-Net Module Utility and follow the onscreen instructions to install the program.
- 2. Run **GV-Net Module Utility**. This window appears.

Search	Log in Setting	Advanced	Reboot		ware Update	e to Cancel qu	) J			
lodule Name	Version	Device Name	MAC Address	IP Address	Subnet Mask	Default Gate	Network A	Action	Status	Progress
GV-A5410	V1.1.0-20130326	GV-A5410	00:13:E2:02	192.168.4.23	255.255.2	192.168.0.1	Marvell Yuk		Log in first	
GV-AS810	V1.1.0-20130326	Controller 1	00:13:E2:FF	192.168.5.184	255.255.2	192.168.0.1	Marvell Yuk		Log in first	
GV-AS210	V1.1.0-20130528	Controller 1	00:13:E2:01	192.168.5.195	255.255.2	192.168.0.1	Marvell Yuk		Log in first	
GV-EV48	V1.0.0-20130607	GV-EV48-Rick	00:13:E2:02	192.168.5.192	255.255.2	192.168.0.1	Marvell Yuk		Log in first	
GV-EV48	V1.0.0-20130702	elevator_ev48	00:13:E2:04	192.168.5.154	255.255.2	192.168.0.1	Marvell Yuk		Log in first	
GV-AS400	V1.0.4-20120815	Controller 2	00:13:E2:01	192.168.3.15	255.255.2	192.168.0.1	Marvell Yuk		Log in first	
GV-AS210	V1.1.0-20130528	Controller 1	00:13:E2:FF	192.168.4.195	255.255.2	192.168.0.1	Marvell Yuk		Log in first	
GV-GF-1922	V1.0.0-20130703	GV-0013e2f	00:13:E2:FF	192.168.5.42	255.255.2	192.168.0.1	Marvell Yuk		Log in first	
GV-GF-1921	V1.0.0-20130523	GF1921	00:13:E2:FF	192.168.4.192	255.255.2	192.168.0.1	Marvell Yuk		Log in first	
GV-GF-1922	V1.0.0-20130523	GV-0013e2f	00:13:E2:FF	192.168.5.64	255.255.2	192.168.0.1	Marvell Yuk		Login succeeded	
GV-GF-1921	V1.0.0-20130523	GV-0013e2f	00:13:E2:FF	192.168.5.182	255.255.2	192.168.0.1	Marvell Yuk		Log in first	
GV-GF-1921	V1.0.0-20130523	GF-1921	00:13:E2:FF	192.168.0.95	255.255.2	192.168.0.1	Marvell Yuk		Log in first	
GV-AS10E	V1.0.0-20130701	AS10E-2	00:13:E2:FF	192.168.5.207	255.255.2	192.168.0.1	Marvell Yuk		Log in first	

Figure 10-1

The buttons on the window:

- Search: Click this button to locate any GV-AS Controller, GV-I/O device, fingerprint readers or GV-AS Manager on the same LAN.
- Set Login: You can select the desired modules from the list, and click this button to log on to these modules with the same ID and password together.
- Setting: Click this button to change the Machine Name, network connection settings, 3DES Code, Device Port, login ID and password.
- Advanced Setting: Click this button to directly link to the Web interface of the selected module.
- Reboot: Click this button to perform a warm boot of the selected module. This operation will keep the current configuration.
- Default: Click this button to reset all configuration parameters to their factory settings. This may take 5 seconds to complete.
- **Firmware Update:** Click this button and assign the firmware file for update.

- Update to the latest firmware version: The GV-ASManager software comes with the latest GV-AS Controller firmware. Clicking this button can upgrade your GV-AS Controller firmware.
- **Cancel queue:** Click this button to cancel the scanning using the **Search** button.

# **Specifications**

Model		GV-GF1911	GV-GF1912			
Application		Indoor u	use only			
Communicat	tion Interface	Wiegand 26, RS-4	185, TCP/IP (LAN)			
Sensor		Capacitive	Optical			
Sensing Are	a (H x W)	18 x 13 mm (0.71 x 0.51 in)	20 x 17 mm (0.79 x 0.67 in)			
Operation M	ode	Fingerprint Only (N/A for Wiegand) Card + Fingerprint Card Only				
Fingerprint	(Fingerprint Only Mode)	RS-485	Not supported			
Enrollment	(Fingerprint + Card Mode)	RS-485, TCP/IP	RS-485, TCP/IP			
Firmware Up	ograde	RS-485, TCP/IP				
Number of F Stored	ingerprints	1,900 (for Fingerprint Only mode)				
Supported C	ard	ISO14443A (MIFARE DESFire, MIFARE Plus and MIFARE Classic ), 13.56 MHz				
Output		DC 24	√, 2.5A			
Power		DC 7.5V ~ 12\	/, Max 250mA			
Operating Te	emperature	0 ~ 50° C (3	32 ~ 122° F)			
Humidity		10% ~	~ 90%			
Dimensions	(H x W x D)	130 x 54 x 43 mm (5.12 x 2.13 x 1.69 in)	130 x 54 x 38 mm (5.12 x 2.13 x 1.50 in)			
Weight		130 g (0.29 lb)	160 g (0.35 lb)			
Certification		CE,	FCC			

#### Note:

- 1. All specifications are subject to change without prior notice.
- 2. Data synchronization with GV-AS Controller and GV-ASManager through LAN is only supported with the following firmware and software versions:
  - GV-ASManager: V4.0 or later
  - GV-AS100 / 110 / 120: V1.06 or later
  - GV-AS400: V1.04 or later
  - GV-AS210 / 810 and GV-EV48: V1.0 or later
  - GV-AS410: V1.1 or later

#### Specifications

Model	GV-GF1921	GV-GF1922				
Application	Indoor use only					
Communication Interface	TCP/IP (10/100	Mbps Ethernet)				
Sensor	Capacitive	Optical				
Sensing Area (H x W)	18 x 13 mm (0.71 x 0.51 in)	20 x 17 mm (0.79 x 0.67 in)				
Operation Mode	Fingerprint Only, Card + Fingerprint, Card Only					
Fingerprint Enrollment	TCP/IP					
Firmware Upgrade	TCP/IP					
Number of Fingerprints Stored	1,900 (for Fingerprint Only mode)					
Supported Card	ISO14443A (MIFARE I and MIFARE Cla	DESFire, MIFARE Plus ssic ), 13.56 MHz				
Output	DC 30 <sup>v</sup>	·				
Input	2 Ports, d	ry-contact				
Power	DC 12V, N	lax 250mA				
Operating Temperature	0 ~ 50° C (3	32 ~ 122° F)				
Humidity	10% -	~ 90%				
Dimensions (H x W x D)	138 x 59 x 48 mm (5	5.43 x 2.32 x 1.89 in)				
Weight	130 g (0.29 lb)	160 g (0.35 lb)				
Certification	CE,	FCC				

Note:

1. All specifications are subject to change without prior notice.

2. GV-GF1921 / 1922 is only compatible with the following firmware and software versions.

- GV-ASManager: V4.0 or later
- GV-AS210 / 410 / 810: V1.1 or later
- GV-EV48: V1.0 or later

3. GV-GF1921 / 1922 do not support third-party controllers.

# **LED Indicator**

### GV-GF1911 / 1912 / 1921 / 1922 (connected with GV-AS Manager)

LED Sta	tus	Description
	Steady	The reader is ready for use.
Blue	Flash continuously	The reader is waiting to detect a fingerprint during enrollment.
	Thash continuously	The reader is waiting to detect a fingerprint to grant access under Card + Finger mode.
		The detected fingerprint or card matches an enrolled account and the access is granted.
	Flash once	An enrollment is successfully deleted.
Green		*for GV-GF1911 / 1912 only
	Flash continuously	The reader is waiting to detect a card during enrollment.
		The reader is waiting to detect a card for deletion.
		*for GV-GF1911 / 1912 only
	Flash once	The detected fingerprint or card does not match any enrolled account or when the access is not within the established schedule. The access is denied.
Red	Flash continuously	The reader is waiting to detect a fingerprint or card for deletion.
	Elash rapidly	The fingerprint or card is being deleted.
	Flash rapidly	*for GV-GF1921 / 1922 only
Purple	Steady	The reader is not connected to GV-AS Controller.
i uipie	Oleady	*for GV-GF1921 / 1922 only
Yellow	Flash once	The fingerprint is not found.
TEIIOW		*for GV-GF1921 / 1922 only

### GV-GF1921 / 1922 (Standalone)

LED Sta	tus	Description
	Steady	The reader is ready for use.
Blue	Flash once	The reader is downloading, deleting or checking the fingerprint.
	Flash continuously	The reader is waiting to detect a fingerprint during enrollment.
Green	Flash once	The detected fingerprint or card matches an enrolled account and the access is granted.
	Flash once	The detected fingerprint or card does not match any enrolled account or when the access is not within the established schedule. The access is denied.
Red	Flash continuously	The reader is waiting to detect a fingerprint or card for deletion.
	Flash rapidly	The fingerprint or card is being deleted.