

# **Introduction To GeoVision Digital Surveillance System**

## **Technical Handbook Part II**



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## System Barcode

(Located on the back of the GeoVision DVR unit)

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Online Chat Support		<a href="http://www.usavisionsys.com">www.usavisionsys.com</a>	Click on “Live Help” button on the webpage to initiate session
Online FAQ		<a href="http://www.usavisionsys.com/support">www.usavisionsys.com/support</a>	
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## Service Contact Information

Distributor/ Vendor	Phone	Email	Note

Service Technician	Phone	Email	Note

## Quick Links

Downloads	
<a href="#">V8.54 CMS User Manual</a>	<a href="#">Data Capture Box Installation Guide</a>
<a href="#">V8.54 CMS Quick Guide</a>	<a href="#">POS Text Sender Installation Guide</a>
<a href="#">Control Center V3 User Manual</a>	<a href="#">ASController User Manual</a>
<a href="#">Control Center V3 Quick Guide</a>	<a href="#">ASManager User Manual</a>
<a href="#">V3.0 GIS User Manual</a>	

## Version History

Release No.	Date	Author	Revision Description
Rev. 2.0	8/25/09	Frank Chang	Training Document
Rev. 2.1	1/20/10	Frank Chang	Access Control added
Rev. 3.0	4/20/11	Frank Chang	ASManager v2.3 and v8.54 CMS release
Rev. 4.0	11/13/12	Frank Chang	Control Center V3.0 and ASManager v4.0 release

## Table of Contents

Contact Information .....	2
Service Contact Information .....	2
Quick Links.....	2
Version History .....	2
1. General Information.....	7
1.1 Purpose.....	7
1.2 Scope.....	7
1.3 Naming and Definitions.....	7
1.4 Acronyms and Abbreviations.....	7
2. Center V2.....	8
2.1 Introduction.....	8
2.2 Specifications .....	8
2.3 System Requirements.....	9
2.4 Software Installation .....	9
2.4.1 Install from Main System Disk .....	9
2.4.2 Install from CMS Disk.....	10
2.5 Setup .....	11
2.5.1 Setup Subscriber Account.....	14
2.5.2 Open Connection Port.....	15
2.5.3 Connect to Center V2.....	16
2.5.4 Open DVR Connection Port .....	17
2.6 Additional Features .....	18
2.6.1 Two-way Audio .....	18
2.6.2 E-mail Setup.....	19
2.6.3 Notification Setup .....	20
2.6.4 Assign Minimum Motion Duration.....	21
2.6.5 Dual Monitor.....	21
3. Control Center.....	22
3.1 Introduction.....	22
3.2 Specifications .....	22
3.3 System Requirements.....	23
3.4 Software Installation .....	24
3.4.1 Install from CMS Disk.....	24
3.5 Setup .....	25
3.5.1 Enable Control Center Server .....	26

3.5.2 Open Connection Port.....	28
3.5.3 Add Host DVR or IP Device.....	28
3.5.4 Remote DVR.....	30
3.5.5 Remote Desktop.....	31
3.5.6 Remote Viewlog .....	32
3.5.7 Event Data Query.....	33
3.5.8 Matrix.....	34
3.6 Additional Features.....	38
3.6.1 Two-way Audio .....	38
4. Point of Sale.....	39
4.1 Introduction.....	39
4.2 Main Features.....	39
4.3 System Requirements.....	39
4.3.1 Data Capture Box V3E .....	39
4.3.2 POS Text Sender.....	39
4.4 HyperTerminal Test.....	40
4.4.1 Connection .....	40
4.4.2 Setup .....	40
4.5 Data Capture Box V3/V3E .....	43
4.5.1 DB9 Connection.....	43
4.5.2 DB25 Serial Connection .....	44
4.5.3 DB25 Parallel Connection .....	45
4.5.4 DIP Switch and Baud Rate.....	46
4.5.5 Ethernet Connection.....	48
4.5.6 Network Configuration .....	49
4.6 POS Text Sender.....	51
4.6.1 DB9 Connection.....	51
4.6.2 Ethernet Connection.....	51
4.6.3 Installation.....	51
4.6.4 Setup .....	53
4.7 Multicam Setup.....	56
4.7.1 DB9 Setup.....	56
4.7.2 Ethernet Setup.....	58
4.7.3 Text Overlay Setting .....	60
4.7.4 Keywords Highlight.....	61
4.7.5 Abnormal Transaction Alert .....	62

4.8 POS Data Search.....	64
4.8.1 Local Search.....	64
4.8.2 Local Query .....	65
4.8.3 Remote Query .....	66
5. Access Control.....	68
5.1 Introduction.....	68
5.2 Specs & Requirements.....	68
5.2.1 Distance & Wiring .....	68
5.2.2 Connection Limit .....	68
5.2.3 Compatible Firmware Versions .....	68
5.2.4 GV-AS100 Specifications.....	69
5.2.5 GV-AS110 Specifications.....	69
5.2.6 GV-AS120 Specifications.....	70
5.2.7 GV-AS400 Specifications.....	70
5.3 Optional Devices.....	71
5.4 AS100/AS110/AS120 .....	73
5.4.1 Connection Diagram .....	73
5.4.2 AS100 Connection .....	74
5.4.3 AS110 Connection .....	75
5.4.4 AS120 Connection .....	76
5.4.5 ASBox Connection .....	77
5.4.6 Create Master Card .....	78
5.4.7 Web Configuration.....	79
5.4.8 Firmware Upgrade .....	81
5.4.9 Restore Default Settings.....	81
5.5 AS400 .....	82
5.5.1 Layout .....	82
5.5.2 Wiegand Reader Connection .....	83
5.5.3 RS485 Reader Connection .....	84
5.5.4 Input Connection.....	85
5.5.5 Output Connection .....	85
5.5.6 Power Connection.....	86
5.5.7 Web Configuration.....	87
5.5.8 Firmware Upgrade .....	90
5.5.9 Restore Default Settings.....	91
5.6 GV-Reader .....	92

5.6.1 Dipswitch Settings .....	92
5.6.2 Wiegand Connection.....	93
5.6.3 RS485 Connection .....	93
5.7 GV-Fingerprint Reader .....	94
5.7.1 Wiegand Connection.....	94
5.7.2 RS485 Connection .....	94
5.8 ASManager .....	96
5.8.1 Introduction.....	96
5.8.2 System Requirements.....	96
5.8.3 Main Features.....	97
5.8.4 Software Installation .....	98
5.8.5 Initialize Database.....	99
5.8.6 Controller & Door Setup.....	101
5.8.7 Time Zone Setup.....	105
5.8.8 Weekly Schedule Setup .....	106
5.8.9 Access Group Setup.....	107
5.8.10 Cards Setup .....	108
5.8.11 Cardholders Setup.....	110
5.8.12 Fingerprint Enrollment.....	112

# 1. General Information

## 1.1 Purpose

The purpose of the training document is to provide introductory technical training for GeoVision V8.54 surveillance software as well as its integration with GeoVision add-on solutions.

## 1.2 Scope

The scope of the training document covers the integration and basic operations of Center V2, Control Center, Point of Sale, and Access Control.

## 1.3 Naming and Definitions

<b>CMS</b>	Central Monitoring Solution for GV-DVR and IP Devices
<b>CV2</b>	Center V2
<b>VSM</b>	Vital Sign Monitor
<b>CCS</b>	Control Center Service
<b>Matrix</b>	Multi-channel display of up to 96 channels each monitor
<b>POS</b>	Point of Sale
<b>POS Text Sender</b>	Application for Windows-based POS systems
<b>ASController</b>	Access Control door controller (AS100, AS110, or AS400)
<b>ASManager</b>	Access Control main database software
<b>ASLog</b>	Access Control event history log
<b>ASRemote</b>	Access Control remote monitoring application
<b>ASWeb</b>	Access Control remote log application
<b>TA Web</b>	Time and Attendance application
<b>VM Web</b>	Visitor Management application
<b>LPR</b>	License Plate Recognition
<b>LPR Center</b>	Central Monitoring Solution for LPR

## 1.4 Acronyms and Abbreviations

<b>DDNS</b>	Dynamic Domain Name Service
<b>DHCP</b>	Dynamic Host Configuration Protocol
<b>DVR</b>	Digital Video Recorder
<b>GV</b>	GeoVision
<b>IP</b>	Internet Protocol
<b>ISP</b>	Internet Service Provider
<b>LAN</b>	Local Area Network
<b>NVR</b>	Network Video Recorder
<b>WAN</b>	Wide Area Network
<b>NO</b>	Normally Open
<b>NC</b>	Normally Close

## 2. Center V2

### 2.1 Introduction

Center V2 is part of the GeoVision Central Monitoring Solution that allows operators to monitor multiple GV-DVRs or IP devices from a central PC. It is an event-driven application that will receive live video from each DVR/NVR or IP devices as camera popup with the option to record the video clip at the Center V2 site as well. The events can be triggered by either camera motion or an input (panic button).

Basic Center V2 allows connections for up to 5 subscribers with no additional license required. In order to connect to more than 5 subscribers, an additional Center V2 license USB key will be required in order to use Center V2 Professional. Center V2 software can be installed from either **v8.54 GeoVision Main System Installation Disk** or **v8.54 GeoVision Central Monitoring Solution Installation Disk**.

### 2.2 Specifications

Feature	Note
Maximum of Subscribers (standard)	5
Maximum of Subscribers (professional)	500
Maximum of Channels (standard)	160
Maximum of Channels (professional)	800
Control of GV-Joystick	Yes
Backup to CD/DVD	Yes
Alarm Reports of Events	Yes
Notification of SMS Alerts	Yes
Notification of E-mail Alerts	Yes
Notification of E-Map Alerts	Yes
Automatic Connection Recovery	Yes
Support for Mega Pixel Resolution	Yes
Real-Time Monitoring	Yes
Remote PTZ Control	Yes
Remote I/O Control	Yes

## 2.3 System Requirements

### Standard Version

<b>OS</b>	<b>32-bit</b>	Windows XP / Vista / 7 / Server 2008
	<b>64-bit</b>	Windows 7 / Server 2008
<b>CPU</b>	Pentium 4, 3.0 GHz with Hyper-Threading	
<b>Memory</b>	2 x 512 MB Dual Channels	
<b>Hard Disk</b>	The hard disk space required to install Center V2 (Standard Version) must be at least 1 GB.	
<b>Graphic Card</b>	AGP or PCI-Express, 1024 x 768, 32-bit color	
<b>DirectX</b>	9.0c	

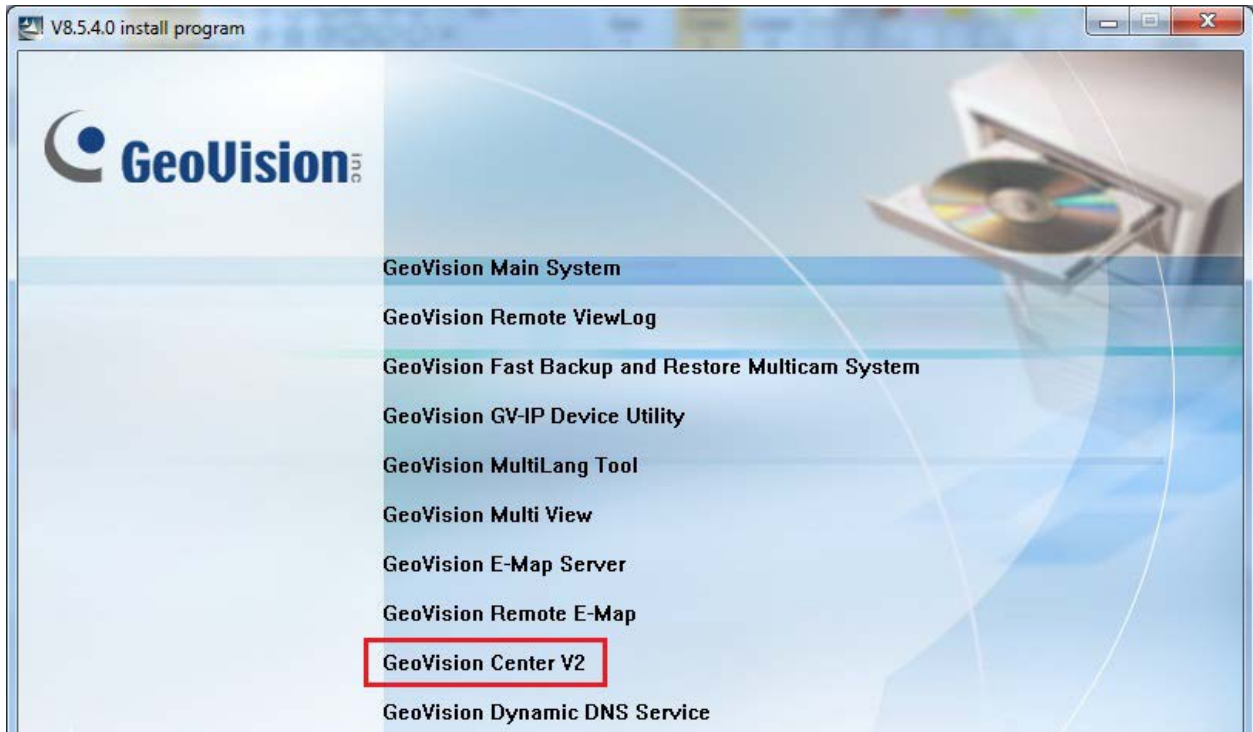
### Professional Version

<b>OS</b>	<b>32-bit</b>	Windows XP / Vista / 7 / Server 2008
	<b>64-bit</b>	Windows 7 / Server 2008
<b>CPU</b>	Core 2 Duo, 2.4 GHz	
<b>Memory</b>	2 x 1 GB Dual Channels	
<b>Hard Disk</b>	The hard disk space required to install Center V2 (Professional Version) must be at least 1 GB.	
<b>Graphic Card</b>	AGP or PCI-Express, 1024 x 768, 32-bit color	
<b>DirectX</b>	9.0c	
<b>Hardware</b>	Internal or External GV-USB Dongle	

## 2.4 Software Installation

### 2.4.1 Install from Main System Disk

1. Insert “**v8.5.4 GeoVision Main System Installation Disk**” into DVD-ROM.
2. In the menu, select “**3. Install GeoVision v8.5.4.0 System**”.
3. Select “**GeoVision Center V2**”.



4. Follow on-screen instructions to complete setup.

#### 2.4.2 Install from CMS Disk

1. Insert “v8.54 GeoVision Central Monitoring Solution Installation Disk” into DVD-ROM.
2. In the menu, select “3. Install GeoVision v8.5.4.0 Central Monitoring System”.
3. Select “GeoVision Center V2 System”.



4. Follow on-screen instructions to complete setup.

## 2.5 Setup



The controls on the Center V2 window:

No.	Name	Description
1	Monitoring Window	Displays live video.
2	Status Panel	Indicates the date, time, remaining disk space, and the total number of online channels versus available channels.
3	Find A Subscriber	Type the desired ID in the Current Subscriber field and click this button to search.

4	Subscriber List	<p>Displays subscribers' ID names and online status.</p> <p><b>Blue Icon:</b> Indicates the subscriber is online.</p> <p><b>Gray Icon:</b> Indicates the subscriber is off-line.</p> <p><b>Alarm Icon:</b> Indicates either motion has been detected or the I/O has been triggered at the subscriber's site.</p>
5	Tools	Accesses Event Log, Event List, Event Chart, QView, audio and microphone control, SMS Server configuration, and short message notification.
6	Host Information	Displays the connection status of subscribers.
7	Accounts	Adds, deletes or modifies subscriber accounts.
8	Preference Settings	Brings up these options: System Configure, Event Log Settings, Notification, Password Setup, E-mail Setup, Customize Alarm Report, SMS Setup, I/O Device, Automatic Failover Support and Version Information.
9	Previous Page	Displays the previous page of camera views.
10	Next Page	Displays the next page of camera views.
11	Refresh Channel	Refreshes the connection status.
12	Split Mode	<p>In the 1024 x 768 resolution, select 6, 15, or 24 screen divisions for a single monitor; 9, 25, or 36 screen divisions for dual monitors.</p> <p>In the 1280 x 1024 resolution, select 6, 12, or 24 screen divisions for a single monitor; 9, 20, or 42 screen divisions for dual monitors.</p> <p>In the 1600 x 1200 resolution, select 6, 12, or 24 screen divisions for a single monitor; 9, 16, or 36 screen divisions for dual monitors.</p> <p>In the 1680 x 1050, 1920 x 1200 and 1440 x 900 resolutions, select 6, 15, or 28 screen divisions for a single monitor; 9, 20, or 42 screen divisions for dual monitors.</p> <p>In the 1920 x 1200 resolution, select 6, 15, or 28</p>

screen divisions for a single monitor; 9, 20, or 42 screen divisions for dual monitors.

In the 1920 x 1080 resolution, select 6, 15, or 28 screen divisions for a single monitor; 6, 20, or 35 screen divisions for dual monitors.

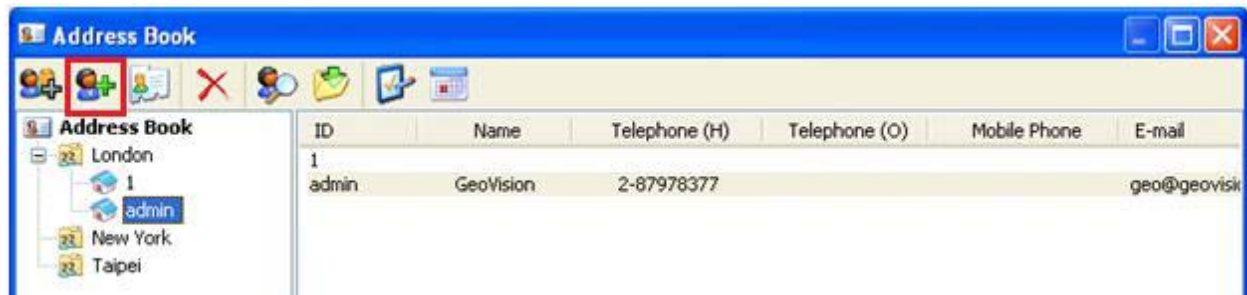
In the 1280 x 800 resolution, select 6, 12, 24 screen divisions for a single monitor; 9, 16, 30 screen divisions for dual monitors.

For resolution, see *Layout Settings* later in this chapter.

13	Exit	Closes or minimizes the Center V2 window.
14	Flag	Flags an event for later reference.
15	Clipboard	Displays the Alarm Report dialog box.
16	Clip	Indicates an event coming with an attachment. Double-click the event to open the attached video file.
17	ID	Indicates a subscriber's ID.
18	Event Type	Indicates the event type: Alarm, Attachment, Connection, Login/Logout, Motion, System, Trigger and Wiegand Data.
19	Message	Indicates associated information for each event type.
20	Message Time	Indicates when Center V2 receives an event.
21	Start Time	Indicates when an event happens at the subscriber's site.
22	Event Categories	Sorts events by types including All, System, Motion, Trigger, Connection, Alarm, Login/Logout, Attachment, Wiegand Data, Device Lost, Offline Event, and Customized Event. For details, see <i>1.14 Using the Event Tabs</i> .

### 2.5.1 Setup Subscriber Account

1. In Center V2, click on “**Accounts**” button (item 7 from section 2.5).
2. Under Address Book window, click on “**Add a Subscriber**” button.



- ✓ A subscriber can be a DVR/NVR, GV-Video Server, GV-Compact DVR, or a GV-IP Camera

Items	Content
Name	GeoVision
Address	9235 Research Dr.
E-mail	support@usavisionssystem.com
E-mail 2	
Country Calling Code	1
Fax	
Telephone (H)	
Telephone (O)	
Mobile Phone	
Mobile Phone 2	
Pager	

3. Create a set of “**Login ID**” and “**Password**” for the subscriber.
  - ✓ The ID and password here will be used by the DVR when connecting to Center V2. It is not related to the DVR’s own ID and password
4. Enter detail information for this subscriber if necessary.
  - ✓ In order to receive E-mail notification from Center V2, it is required to enter at least one set of e-mail address for each subscriber
5. Click “**OK**”.
6. Select desired “**Image Size**” to be received from the subscriber.
  - ✓ Higher resolution will also consume more bandwidth

7. Check on “**Auto Record Video**” to save a copy of video clip on Center V2 PC when video stream is received from the subscriber.
8. Select “**Live Mode**”, “**Attachment Mode**”, or “**Both**”.
  - a. **Live Mode** transmits live video continuously to Center V2 for recording, but it also consumes the most bandwidth.
  - b. **Attachment Mode** initiates video recordings only when monitored events are triggered.
  - c. **Color of Channel Caption** allows Center V2 operators to easily distinguish live video feeds by assigning a specific color to each subscriber.
  - d. **Storage Group** assigns video recording from this subscriber to a specific drive location.

**Subscriber Settings - 1**

**Monitor Option**

Image Size: Normal

☒ Auto Record Video

**Record Mode**

☒ Live Mode Settings

☐ Attachment Mode Settings

☐ Both (Live & Attachment)

**Note**

Any changes of this property will be applied in next trigger.

**Color of Channel Caption**

**Storage Group**

Storage 1

OK Cancel

9. Click “**OK**” to finish and save Subscriber Settings on Center V2.

- ✓ *At this stage, Center V2 is ready to be connected by DVR/NVR*
- ✓ For detail instruction, refer to p.8 of v8.54 CMS User Manual

## 2.5.2 Open Connection Port




1. By default, Center V2 uses port **5547** in order to allow GV-DVR connection from another network (not within LAN). Port **5551** is required for GV-IP Device connection.
- ✓ Refer to p.44 “Network Port Configuration” in GeoVision Technical Handbook Part I for port forwarding instructions

### 2.5.3 Connect to Center V2

- ✓ In order to connect GV-DVR/NVR to Center V2, the connection must be initiated from the DVR. Thus, the following procedure is performed on GV-DVR system.

1. In GeoVision Multicam, click on the “**Network**” icon.
2. Select “**Connect to Center V2**”.

CenterV2 IP	Status
127.0.0.1	-
192.168.0.115	-

3. Enter Center V2 IP address in “**Center IP**”.
4. Enter **User ID** and **Password** as created in Step 3 from Section 2.5.1.
5. Click “**OK**”.
6. Under “Connect to Center V2” window, to add a Center V2 connection, click on 
  - a. To edit an existing Center V2 connection, click on 
  - b. To remove an existing Center V2 connection, click on 
7. Click on “**Configure**”, select “**General Settings**”.


Connection Broken

Maximum Retries: 3

Retry Interval: 5 Sec.

☒ Retry until connected

☐ Retry in the background

Connective Port 

Command Port: 5548 Default

Data Port: 5549 Default

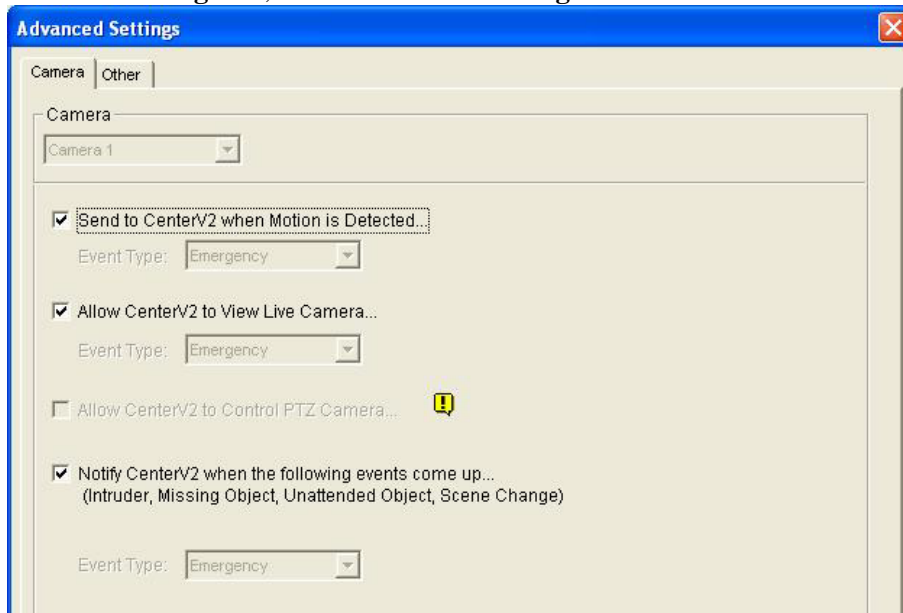
Connection Port: 5545 Default

Temp Folder

Path: C:\GV-NVR\~CCTemp

OK Cancel

8. Select video compression codec for video streaming to Center V2.
9. Note the connection ports. By default, Command Port is **5548**, Data Port is **5549**, and Connection Port is **5545**.
10. Click “OK”.
11. Click on “Configure”, select “Advance Settings”.



12. For each camera, define the condition when video will be sent to Center V2.
    - a. To send video to Center V2 by motion detection, select **Emergency**.
    - b. To send video to Center V2 only when an input device is triggered, select **Normal**.
- ✓ If no I/O device is present, the option will be grayed out and default to Emergency

13. Click “OK”.
14. Click “Connect...” to initiate connection to Center V2.

✓ For detail instruction, refer to p.15 of v8.54 CMS User Manual

#### 2.5.4 Open DVR Connection Port

1. By default, GV-DVR uses ports **5545**, **5548**, and **5549** when connecting to Center V2 (as shown in Step 11). Therefore, in order to allow GV-DVR to connect to Center V2 in another network (not within LAN), it is necessary to open ports **5545**, **5548**, and **5549**.
- ✓ Refer to p.44 “Network Port Configuration” in GeoVision Technical Handbook Part I for port forwarding instructions

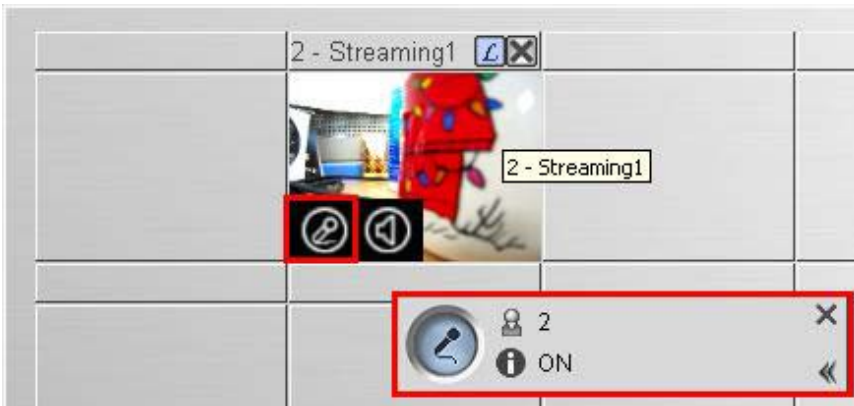
## 2.6 Additional Features

### 2.6.1 Two-way Audio

1. To initiate two-way audio between subscriber and Center V2, float mouse cursor over the desired channel to bring up two-way audio menu.



2. Click on “Mic” button to broadcast audio to the desired subscriber.



3. Click on “Speaker” button to listen to audio from the subscriber.



- ✓ *Center V2 may communicate with IP Devices that support two-way audio feature directly. Otherwise, if the subscriber is a DVR/NVR, the talk back function will be forwarded to DVR/NVR server only*
- ✓ For detail instruction, refer to p.37 of v8.54 CMS User Manual

## 2.6.2 E-mail Setup

1. To setup an E-mail account for Center V2 alerts, click “**Preference Settings**”, then “**E-mail Setup**”.
2. Enter e-mail address that will be sending out alerts under “**E-Mail From:**”
3. Enter SMTP server address under “**SMTP Server**”.
4. Verify SMTP server is using default port **25**.

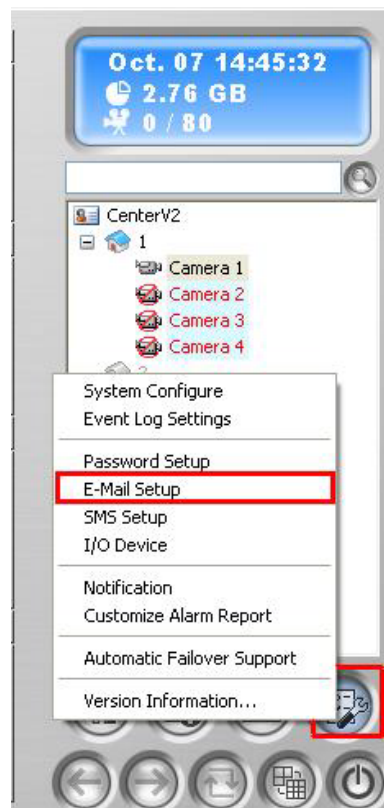
✓ *Webmail such as Yahoo and Hotmail generally uses non-default ports. Check with mail provider for exact port number*

5. Set E-Mail Alert Interval to prevent redundant e-mail.

✓ *Default interval is set to 0 min, in which e-mail will be sent continuously until the event has been cleared*

6. To test mail settings, enter a recipient address under “**E-Mail To**” and a “**Subject**”. Then, click on “**Test Mail**” to see if a sample e-mail can be sent and received properly. If not, check for errors from steps 1 to 5.
7. Click “**OK**”.

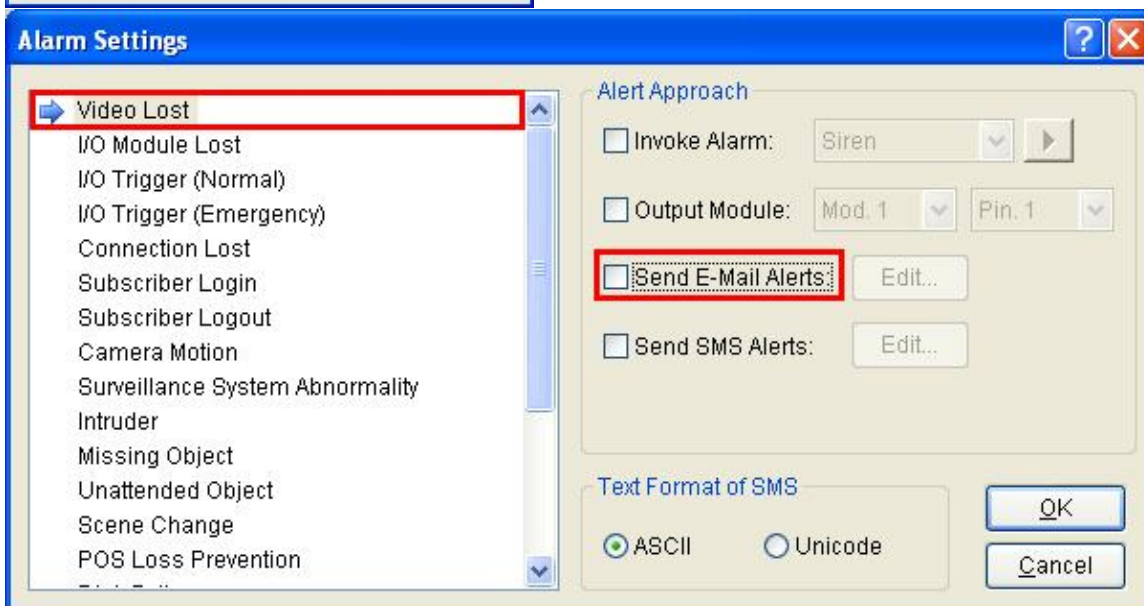
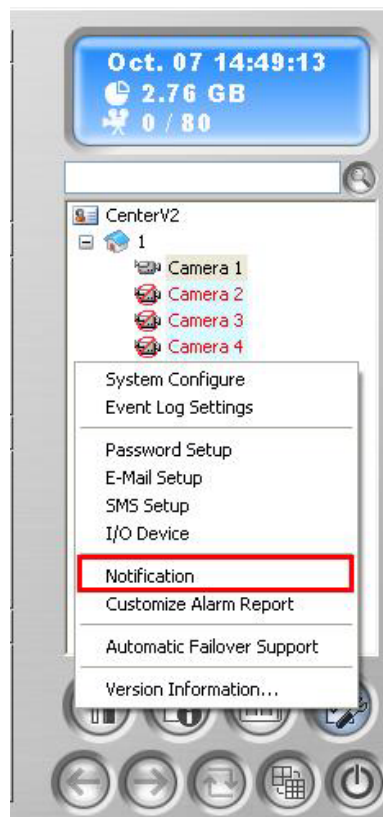
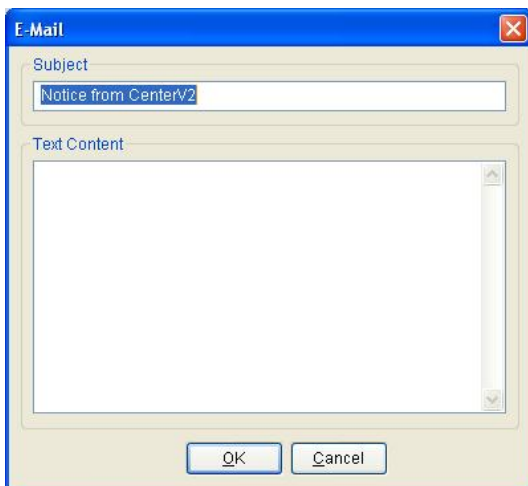
✓ *E-mail alerts will be sent to each individual subscriber when its respective alerts are received by the Center V2. Refer to step 4 in section 2.5.1 for subscriber e-mail setup*

A screenshot of the 'Mail Setup' dialog box. The dialog has a blue title bar and is divided into two main sections: 'Setup' and 'Test'. The 'Setup' section contains fields for 'Charset' (set to 'Western European (Windows)'), 'E-Mail From:', 'SMTP Server:', 'SMTP Port:' (set to '25' with a 'Default' button), a checkbox for 'SMTP Server requires authentication' (unchecked), 'Account ID:', and 'Password:'. The 'Test' section contains fields for 'E-Mail To:', 'Subject:', and 'Mail Content:'. A 'Test Mail' button is located next to the 'Mail Content' field. At the bottom left, there is an 'Alert Setup' section with 'E-Mail Alert Interval:' set to '0' minutes. 'OK' and 'Cancel' buttons are at the bottom right.

- ✓ For detail instruction, refer to p.86 of v8.54 CMS User Manual

### 2.6.3 Notification Setup

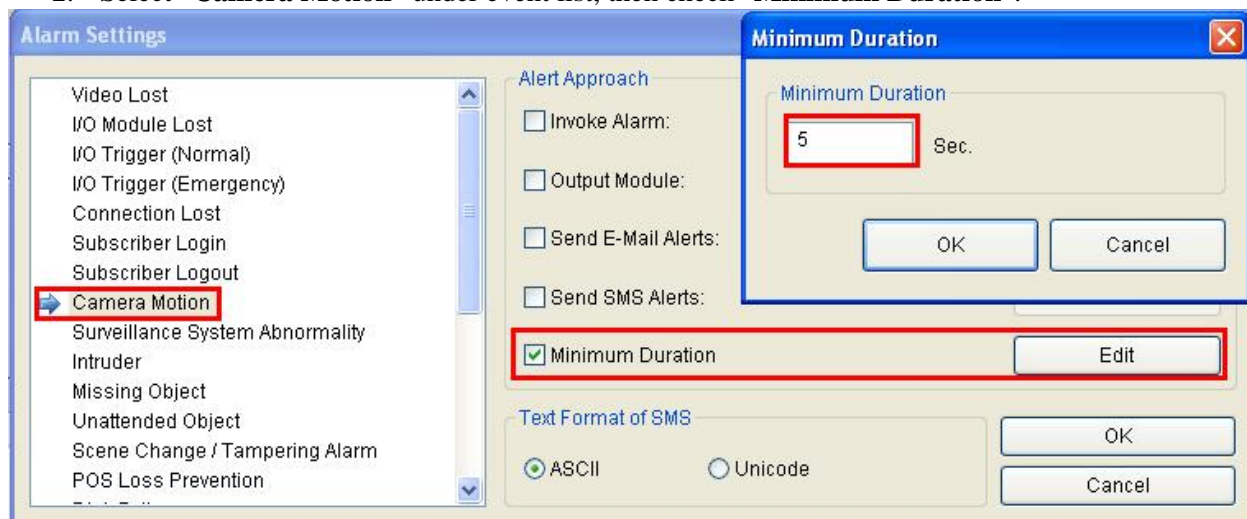
1. To setup notification for specific Center V2 events, click **“Preference Settings”**, then **“Notification”**.
2. Select desired Center V2 event to trigger notification.
  - a. **“Invoke Alarm”** will play an audio clip on the Center V2 system when the event is received.
  - b. **“Output Module”** will trigger a physical output via an I/O device connected to Center V2 system.
  - c. **“Send E-Mail Alerts”** will send e-mail to individual subscriber when the event is received.
  - d. **“Send SMS Alerts”** will send a signal to the external SMS modem when the event is received.
3. For E-mail alerts, edit e-mail subject and content as necessary for this event.
4. Click **“OK”** then **“OK”** again to save the settings.



- ✓ For detail instruction, refer to p.75 of v8.54 CMS User Manual

## 2.6.4 Assign Minimum Motion Duration

- ✓ When Center V2 is configured to receive live video popup by motion detection, the amount of video popups can be reduced by assigning minimum motion duration
- 1. To assign minimum duration for motion events in Center V2, click “**Preference Settings**”, then “**Notification**”.
- 2. Select “**Camera Motion**” under event list, then check “**Minimum Duration**”.



3. Click “**Edit**” to bring up Minimum Duration window.
4. Enter the minimum threshold for motion detection events, click “**OK**”.

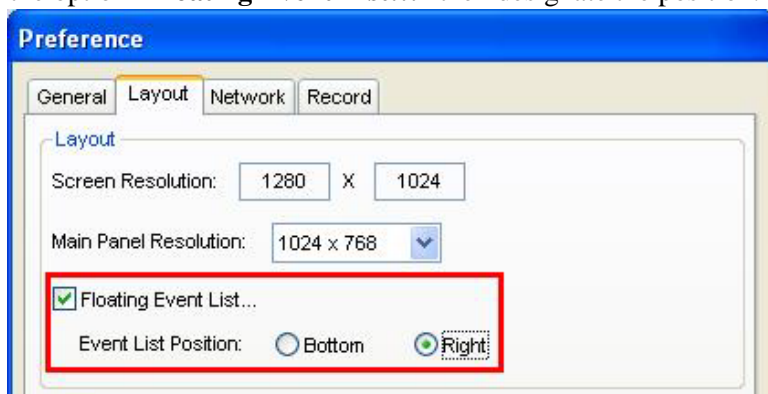
✓ While longer duration may effectively eliminate false motion alarms, it may also increase the risk of missing actual motion events

5. Click “**OK**” to apply setting.

## 2.6.5 Dual Monitor

✓ In order to display up to 42 channels on one monitor, Center V2 requires dual-display setup. Event list will be displayed on 2<sup>nd</sup> monitor in this mode.

1. In Center V2, click “**Preference Settings**”, then “**System Configure**”.
2. Select **Layout** tab, and check on the option “**Floating Event List...**” then designate the position.
3. Click “**OK**” to apply setting.
4. Restart Center V2 software to apply the layout change.



## 3. Control Center

### 3.1 Introduction

Control Center is part of GeoVision Central Monitoring Solution that allows system administrators to fully control multiple GV-DVRs from a central PC. Via Control Center, system administrators may use the following features:

1. **Remote DVR** to remotely configure GeoVision Multicam software.
2. **Remote Desktop** to configure Windows settings or perform remote training.
3. **Remote Viewlog** to review video recordings from multiple GV-DVRs.
4. **Matrix** to assemble a live view station consisting up to 96 channels per monitor. Up to 8 independent matrices can be opened in one Control Center to allow maximum of 768 video channels to be viewed live at once.
5. **Central I/O Panel** to monitor or chain inputs and outputs from multiple GV-DVRs.
6. **Central E-Map** to monitor E-Maps from multiple GV-DVRs.

Control Center license USB key is required in order to use Control Center software. Control Center software can be installed from **v8.54 GeoVision Central Monitoring Solution Installation Disk**.

### 3.2 Specifications

Feature	Amount	Note
DVR Host	1000 hosts	
Video Server Host	500 hosts	The total number of Video Server, IP Camera, Compact DVR hosts is 500.
IP Camera Host		
Compact DVR Host		
Remote DVR	Unlimited	
Remote Desktop	Unlimited	
Remote ViewLog	5	
I/O Host	DVR: 1000 hosts GV-Video Server + GV-IP Camera + GV-Compact DVR: 500 hosts	One host supports up to 9 sets of 16-in and 16-out I/O modules.  Only for GV IP products.
Remote E-Map Host/Map	500 hosts / unlimited	
Live View	Single view Window: 1 window Multiple view Window: 20 divisions	
Matrix View/Group/Channel	8 views / unlimited / 768 CH in total	For 1920 x 1200, 1920 x 1080 resolution.

VMD Group/Channel	1 group / 1200 CH	DVR: 1000 CH GV-Video Server + GV-Compact DVR + GV-IP Camera: 200 CH
		Only for GV IP products
Panorama View/Channel	4 views / 32 CH per view	
Matrix	1024 x 768: 64 CH	Total: 512 CH on 8 Matrixes
	1280 x 1024: 64 CH	Total: 512 CH on 8 Matrixes
	1680 x 1050: 80 CH	Total: 640 CH on 8 Matrixes
	1600 x 1200: 64 CH	Total: 512 CH on 8 Matrixes
	1920 x 1200: 96 CH	Total: 768 CH on 8 Matrixes
	1920 x 1080: 96 CH	Total: 768 CH on 8 Matrixes
	1280 x 800: 48 CH	Total: 384 CH on 8 Matrixes
	1440 x 900: 48 CH	Total: 384 CH on 8 Matrixes
Video Wall (Optional)	<ul style="list-style-type: none"> <li>• 200 servers</li> <li>• Matrix View (unlimited channel)</li> <li>• 16 Scan Windows (32 CH per window)</li> <li>• 16 Zoom Windows</li> <li>• Remote Desktop (Number depends on Dongle)</li> </ul>	

### 3.3 System Requirements

#### Standard Version (for GV-Control Center and Video Wall Server)

OS	32-bit	Windows 7 / Server 2008
	64-bit	Windows 7 / Server 2008 R2
CPU	Core 2 Duo E6400, 2.13 GHz	
RAM	2 x 2 GB	
Hard Disk	The hard disk space required to install Control Center (Standard Version) must be at least 1 GB.	
Graphic Card	AGP or PCI-Express, 1024 x 768, 32-bit color	
DirectX	9.0c	
LAN Card	Gigabit Ethernet x 1	
Hardware	Internal or External GV-USB Dongle	

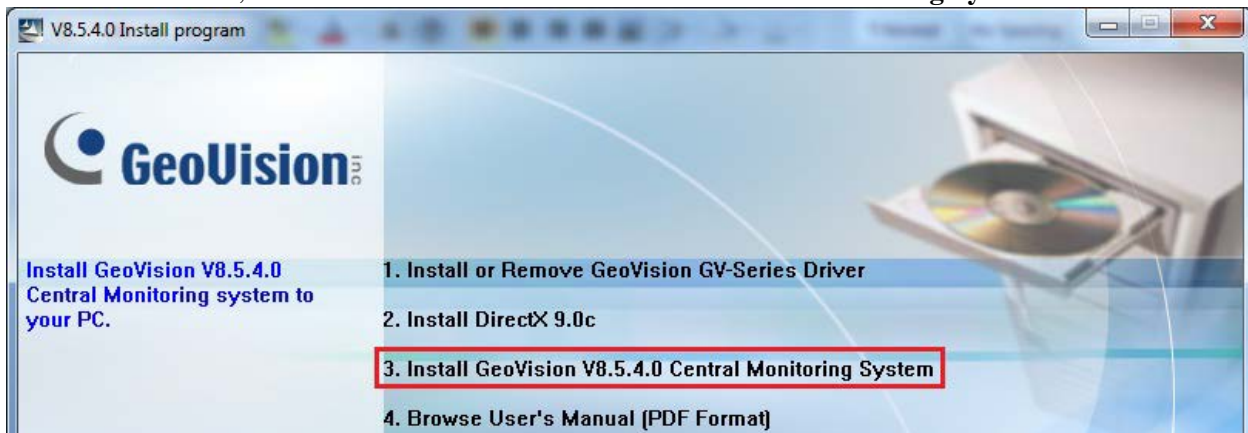
### Advanced Version (for GV-Control Center and Video Wall Server)

OS	64-bit	Windows 7 / Server 2008 R2
CPU		Core i7 2600K, 3.4 GHz
RAM		3 x 2 GB
Hard Disk		The hard disk space required to install Control Center (Advanced Version) must be at least 1 GB.
Graphic Card		AGP or PCI-Express, 1024 x 768, 32-bit color
DirectX		9.0c
LAN Card		Gigabit Ethernet x 2
Hardware		Internal or External GV-USB Dongle

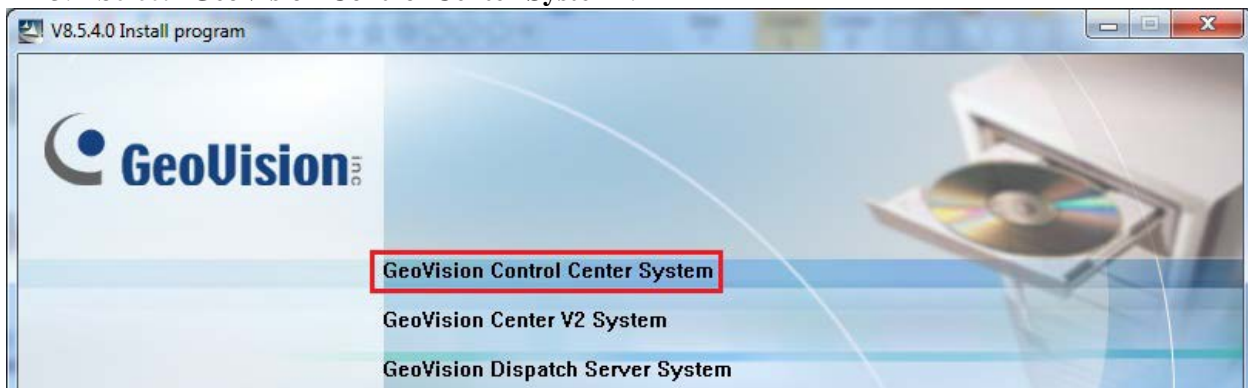
## 3.4 Software Installation

### 3.4.1 Install from CMS Disk

1. Insert “v8.5.4 GeoVision Central Monitoring Solution Installation Disk” into DVD-ROM.
2. In the menu, select “3. Install GeoVision v8.5.4.0 Central Monitoring System”.



3. Select “GeoVision Control Center System”.



4. Follow on-screen instructions to complete setup.

## 3.5 Setup



No.	Name	Description
1	Configure	Displays system settings including general settings, network settings, VMD settings, Remote Desktop and Video Wall.
2	Application Position	Configures position and resolutions of application windows, including GV-System, Remote ViewLog, Remote E-Map, I/O Central Panel, and up to 8 matrices. See <i>8.1 Application Position</i> .
3	Search Host	Opens the Search Host window, with which you can detect any devices on the same LAN and add them to the Host List.
4	Connect to server	Adds a server to Layout List of a Video Wall.
5	Search Server	Searches the available server. See <i>8.3 Video Wall</i> .
6	Activated Layout	Opens the activated Layout. See <i>8.3 Video Wall</i> .
7	Layout List	Displays the video wall layout list on the main window. See <i>8.3.2 The Layout List</i> .
8	Host List	Displays Host List on the main window.
9	Group List	Displays the Group List on the main window.
10	Live View Window	Displays the Live View window on the main window. Drag and drop cameras for live view display.
11	Remote DVR	Allows the Control Center to access a remote client GV-System.
12	Remote Desktop	Allows the Control Center to access a remote client GV-System and its desktop.
13	Remote ViewLog	Allows the Control Center to access the event files of different hosts and play them back. See <i>5.2 Remote ViewLog</i> .
14	Remote E-Map	Allows you to monitor client DVR and GV IP devices on E-Maps. See <i>9.1 Remote E-Map</i> .
15	VMD System	Displays pop-up live views when a motion, input or temperature alert is detected. See <i>3.4 VMD Monitoring</i> .

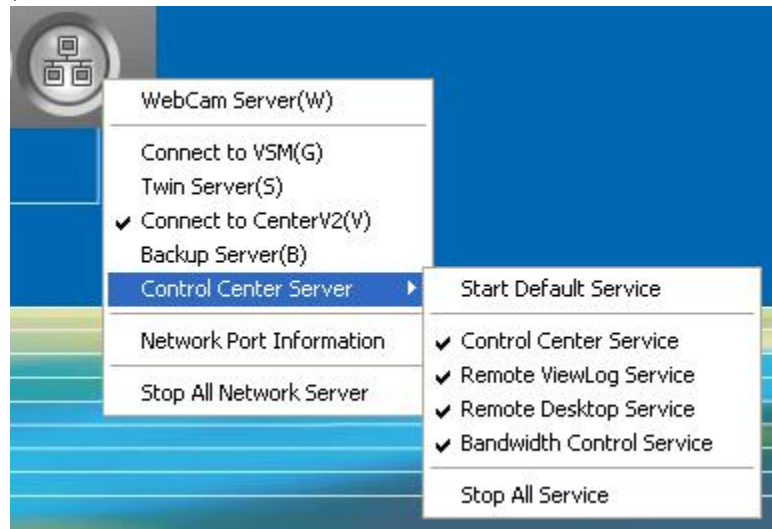
No.	Name	Description
16	I/O Central Panel	Collectively manages I/O devices of different hosts. See <i>I/O Central Panel</i> , Chapter 7.
17	Broadcast Service	Speaks to multiple hosts over LAN or the Internet simultaneously. See <i>4.2 Audio Broadcast</i> .
18	Matrix Quick Zoom	Displays a selected camera view on the primary monitor when multiple monitors are used. For Matrix View, see <i>8.2 Matrix View</i> .

### 3.5.1 Enable Control Center Server

✓ Before Control Center can connect, DVR/NVR must first grant permission to allow such connection.

1. In GeoVision Multicam, click on the “**Network**” icon.
2. Select “**Control Center Server**”, then “**Start All Service**”.

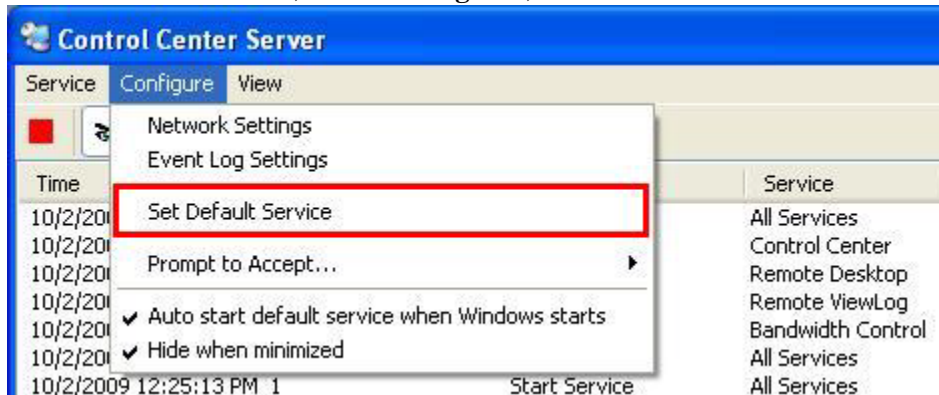
3. Minimize GeoVision Multicam by clicking on the “**Exit**” button then select “**Minimize**”.
4. On Windows desktop, locate **Control Center Server** icon in the task bar.



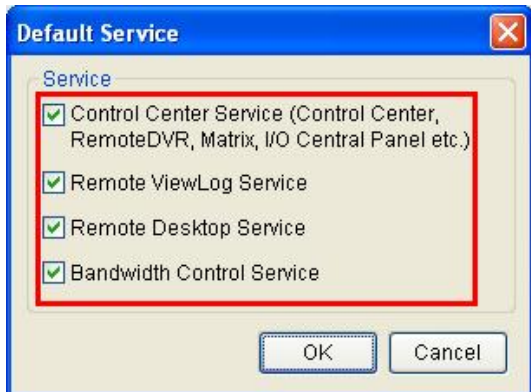
5. Double-click on **Control Center Server** icon to bring up Control Center Server window.



6. In Control Center Server, click “**Configure**”, then select “**Set Default Service**”.



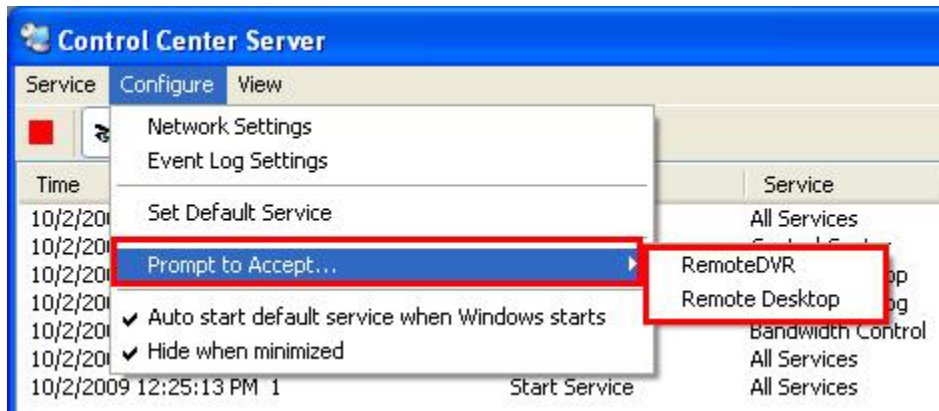
7. Check on all services to set them as default.



8. Click “**Configure**”, check “**Auto start default service when Windows starts**”.



9. Click “**Configure**”, select “**Prompt to Accept...**”
10. Uncheck **Remote DVR** and/or **Remote Desktop** to always grant permission to Control Center connections to this DVR.



- ✓ *If Remote DVR and/or Remote Desktop options are checked, when Control Center tries to access the DVR/NVR, a permission window will pop up on the DVR/NVR for local user to decide whether permission will be granted.*

11. Minimize **Control Center Server** to keep it running in the Windows task bar.

- ✓ *At this stage, GV-DVR is ready to be connected by Control Center.*

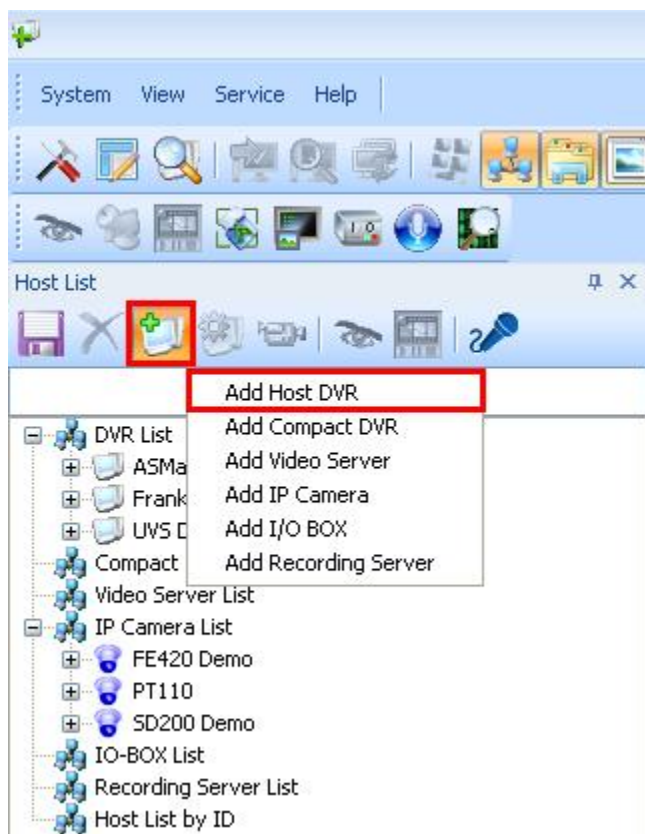
- ✓ For detail instruction, refer to p.12 of Control Center User Manual

### 3.5.2 Open Connection Port

1. By default, GV-DVR uses Command port **3388**, Data port **5611**, and Log port **5552** in order to allow Control Center connection from a different network.
- ✓ Refer to p.44 “Network Port Configuration” in GeoVision Technical Handbook Part I for port forwarding instructions

### 3.5.3 Add Host DVR or IP Device

- ✓ *In order to connect Control Center to GV-DVR, the connection must be initiated from Control Center. Thus, the following procedure is performed on Control Center.*
1. Click on “**Host List**” button.
  2. Click on “**Add Host**” button in the Host List window, select “**Add Host DVR**”.
- ✓ If Control Center is used to connect to GV-IP Devices such as IP cameras, video servers, or Compact DVRs, select the host accordingly



3. Enter **Host name** (DVR name for identifying purpose), **IP address**, **ID**, and **Password** required to access GV-DVR/NVR.
4. Click “**Update Information**” to test network connection.
5. Click “**OK**”.

**Host Settings**

Host Name: Host 1

Address: 192.168.0.100

☐ Use Remote Authentication Account

☒ Remember Account

ID: 0000

Password: ••••

Command Port: 3388 [Default]

Data Port: 5611 [Default]

Log Port: 5552 [Default]

HTTP Port: 80 [Default]

- ✓ Repeat steps 1 through 5 to add more hosts in Control Center.
- ✓ *If connection failed, check host's IP address, ID, password, as well as ports listed above to make sure they are entered correctly*

**Host Settings**

Host Name: Host 1

Address: 192.168.0.10

☐ Use Remote Authentication Account

☒ Remember Account

ID: admin

Password: ••••

Command Port: 10000 [Default]

HTTP Port: 80 [Default] [Configure](#)

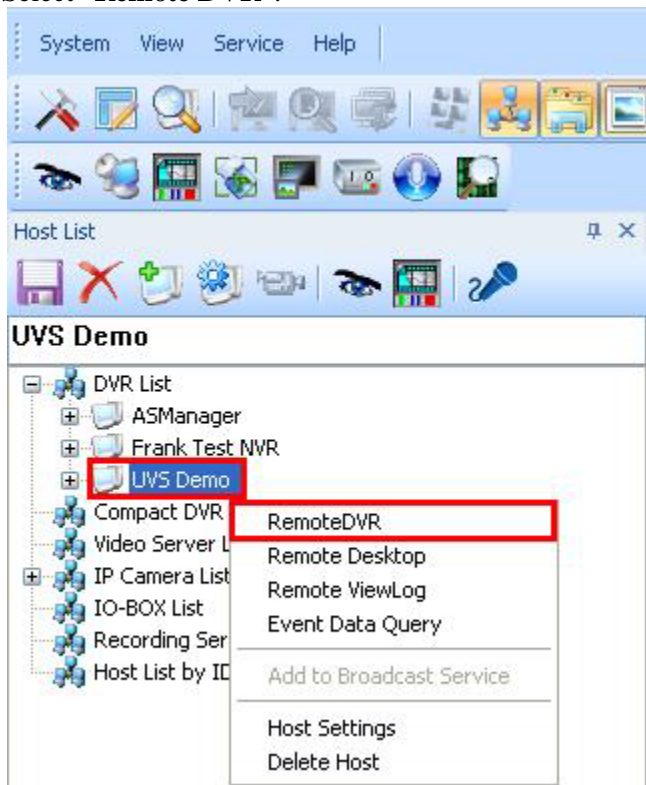
Brand: GeoVision

Model: GeoVision\_GV-FER521\_Series

- ✓ To add specific IP camera as a host, it is necessary to select the brand and model of the IP camera from the drop-down list as well
- ✓ For detail instruction, refer to p.10 of Control Center User Manual

### 3.5.4 Remote DVR

1. Under Control Center Host List, right-click on the host to perform Remote DVR.
2. Select “**Remote DVR**”.



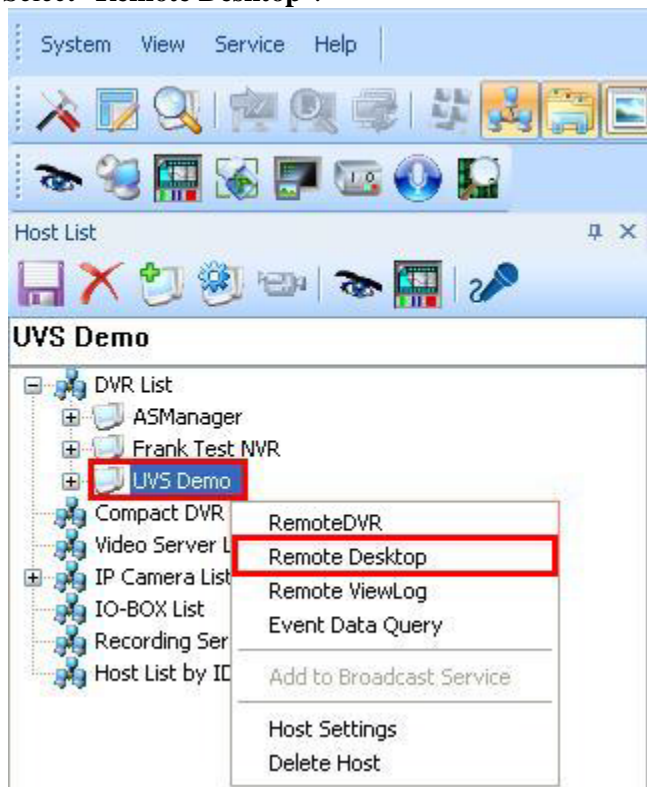
3. When Multicam interface appears, configure Multicam settings as necessary.



- ✓ When Remote DVR is activated, local DVR's Multicam will be temporarily disabled
- ✓ For detail instruction, refer to p.40 of Control Center User Manual

### 3.5.5 Remote Desktop

1. Under Control Center Host List, right-click on the host to perform Remote Desktop.
2. Select “**Remote Desktop**”.



3. Remote desktop session initiates.



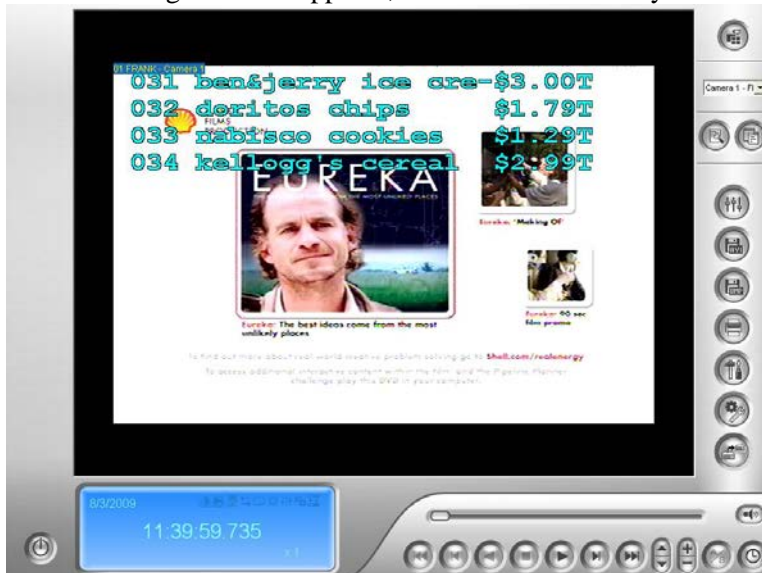
- ✓ *Control Center's Remote Desktop function also supports file transfer between the DVR/NVR and the Control Center server*
- ✓ For detail instruction, refer to p.42 of Control Center User Manual

### 3.5.6 Remote Viewlog

1. Under Control Center Host List, right-click on the host to perform Remote Viewlog.
2. Select “**Remote Viewlog**”.



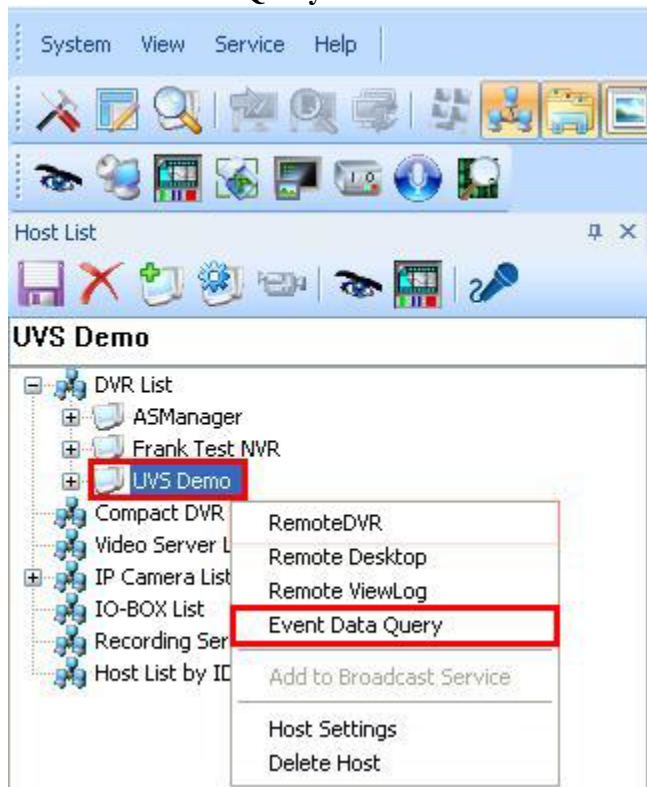
3. When Viewlog interface appears, review video files as you would on the GV-DVR/NVR.



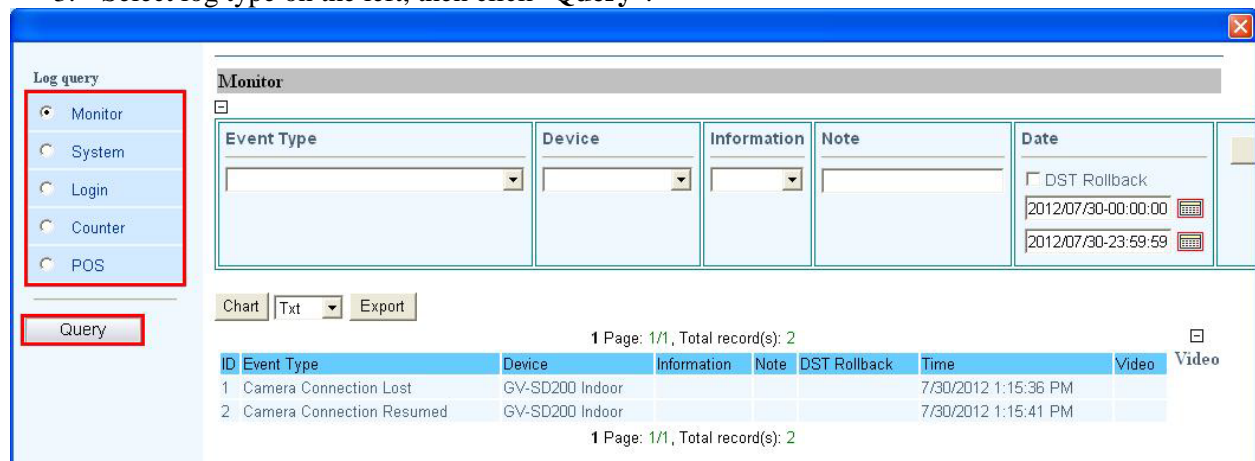
- ✓ “Save as AVI” and “Backup” are also available through Remote Viewlog. Refer to p.38 in GeoVision Technical Handbook Part I for video backup instructions
- ✓ For detail instruction, refer to p.39 of Control Center User Manual

### 3.5.7 Event Data Query

1. Under Control Center Host List, right-click on the host to perform data query.
2. Select “**Event Data Query**”.



3. Select log type on the left, then click “**Query**”.

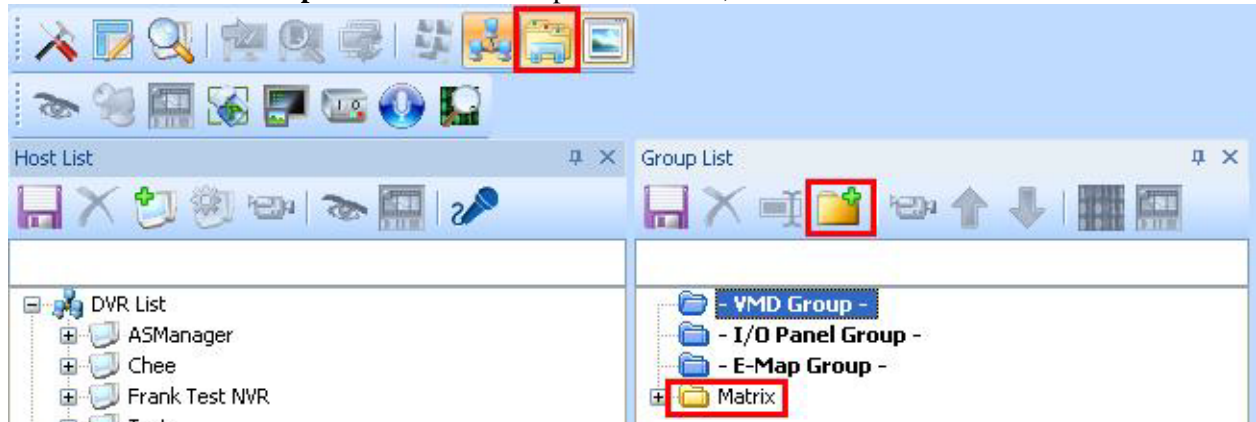


4. Select desired “**Event Type**” to filter out specific events to be displayed.
5. Select “**Device**” to display events for specific cameras.
6. Select “**Date**” to display events within specific dates indicated.
7. Click “**Query**” to display results.

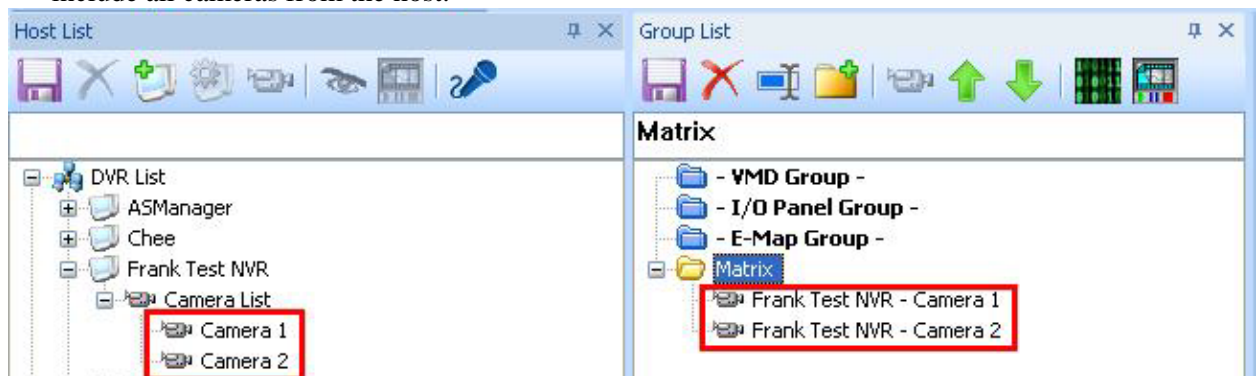
✓ For detail instruction, refer to p.44 of Control Center User Manual

### 3.5.8 Matrix

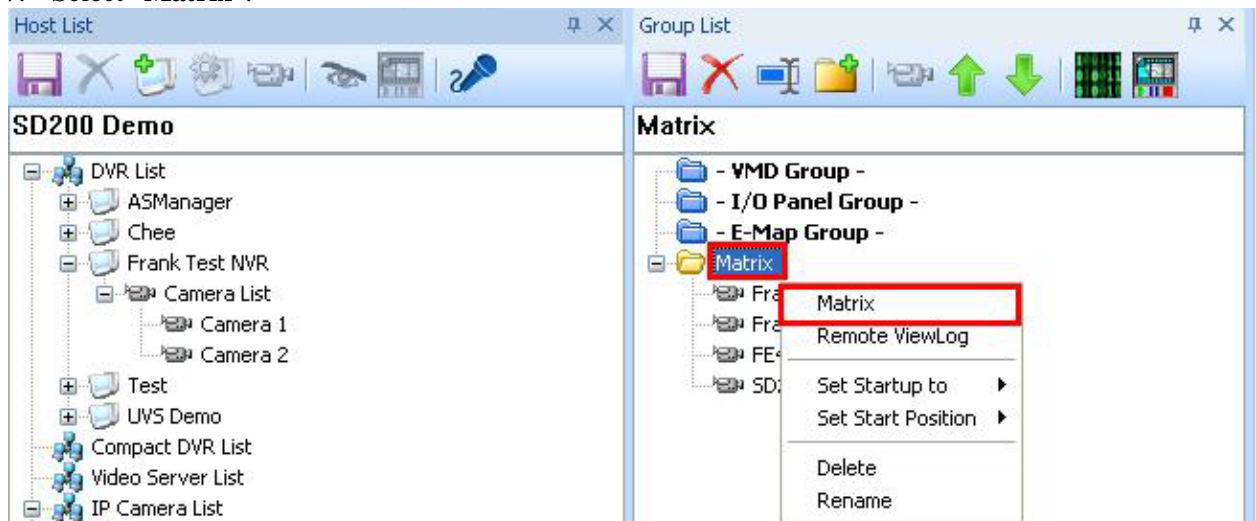
1. Click on “**Group List**” button.
2. Click on “**Add Group**” button in the Group List window, name the folder.



3. Under Control Center Host List, expand Camera List for the host then drag and drop desired camera into the created in the previous step. To display all cameras from a certain DVR/NVR in a Matrix, drag and drop “**Camera List**”, instead of individual camera, to the folder to automatically include all cameras from the host.



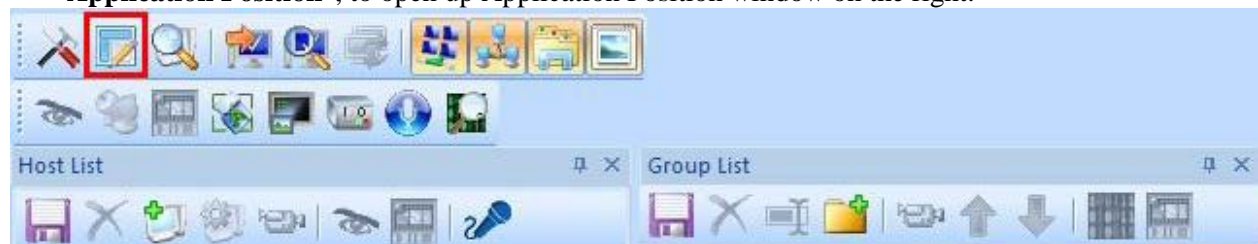
4. Repeat step 3 to add more cameras from different hosts into the same Matrix, if needed.
5. Repeat steps 2 and 3 to create multiple Matrices folders.
6. To start a Matrix, right-click on the folder created in step 2.
7. Select “**Matrix**”.



8. The Matrix should pop up displaying the video channels contained in the folder. Select different channel layout from the available options below.

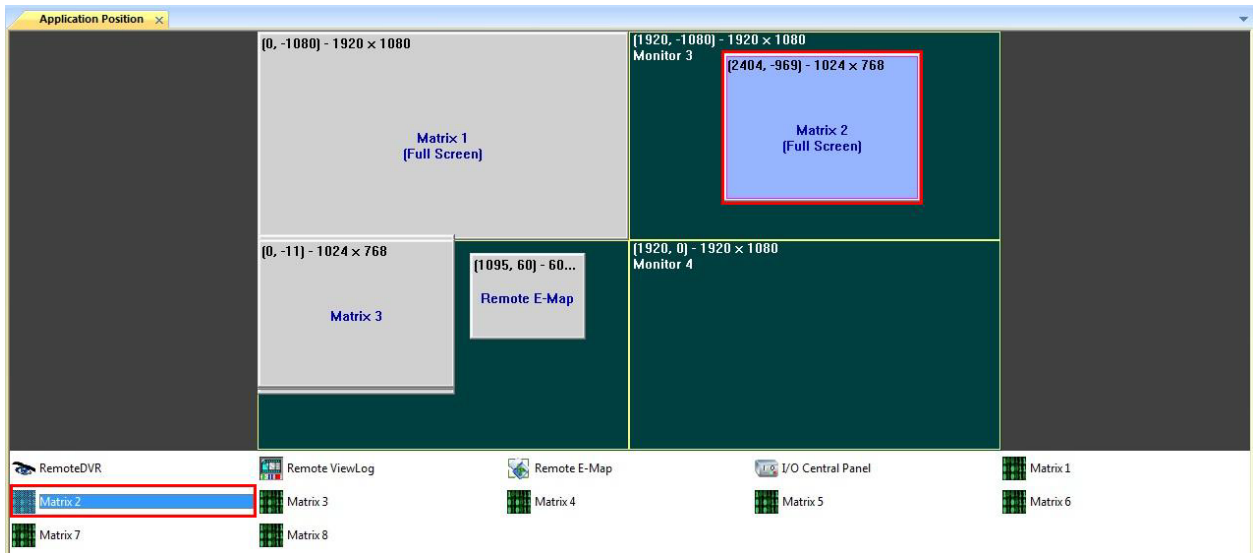


9. To start multiple Matrices, repeat steps 6 to 8.
10. By default, all Matrices will appear on primary monitor. To utilize multiple monitors, click on **“Application Position”**, to open up Application Position window on the right.

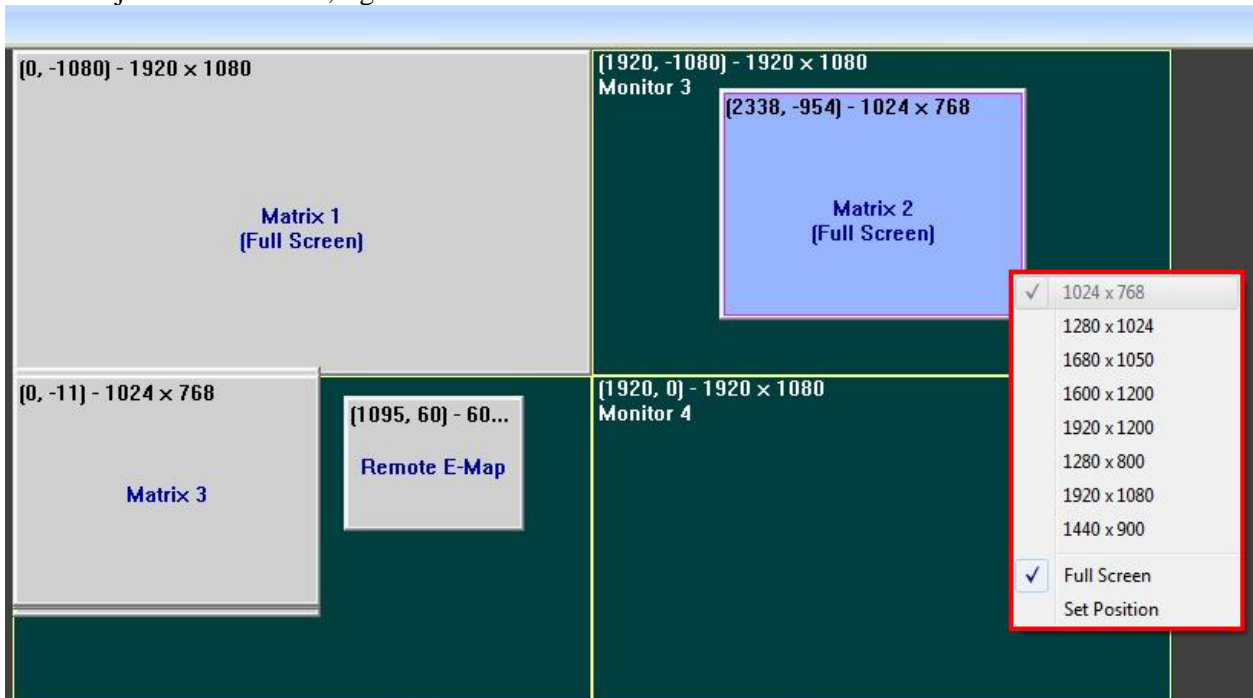


11. Select Matrix 2 icon from the shortcuts in the middle to locate Matrix 2 in the Application Position window above.
12. Drag Matrix 2 to the desired monitor.

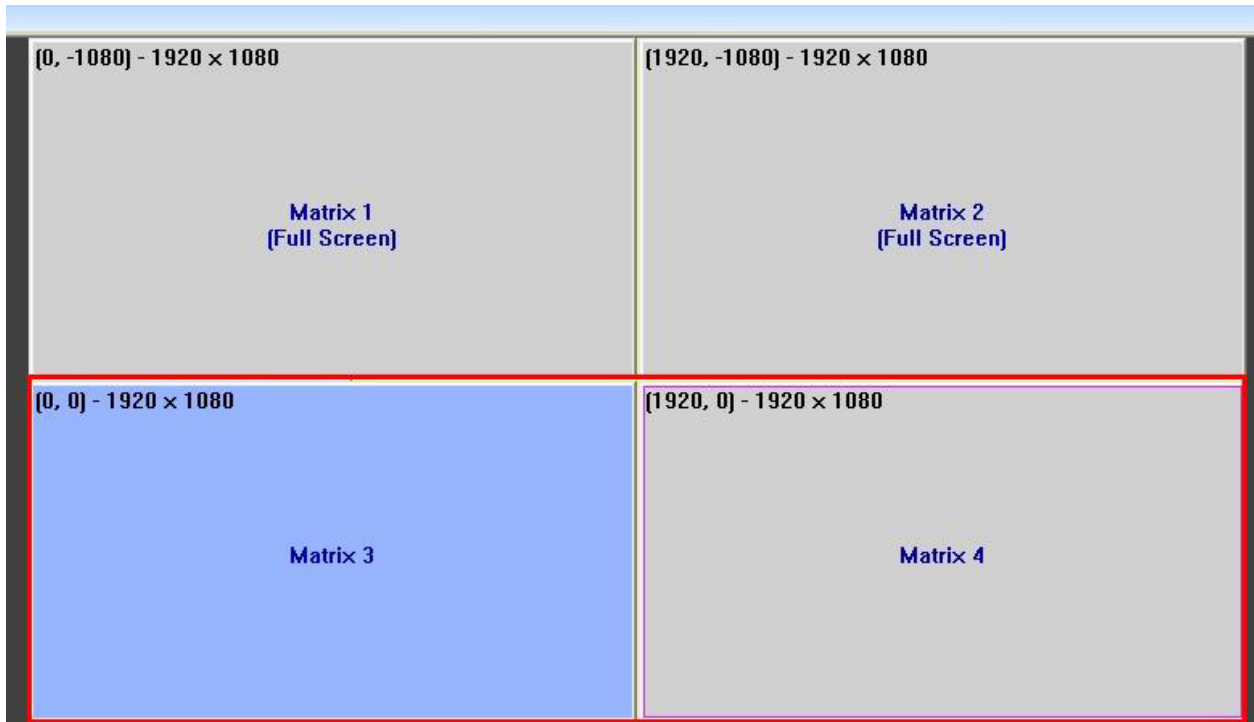
- ✓ *If the Application Layout does not reflect the actual number of monitors connected, go to Windows display, then make sure that Windows detect each monitor properly with correct resolution and position.*



13. To adjust the resolution, right-click on Matrix 2 and select the desired resolution.

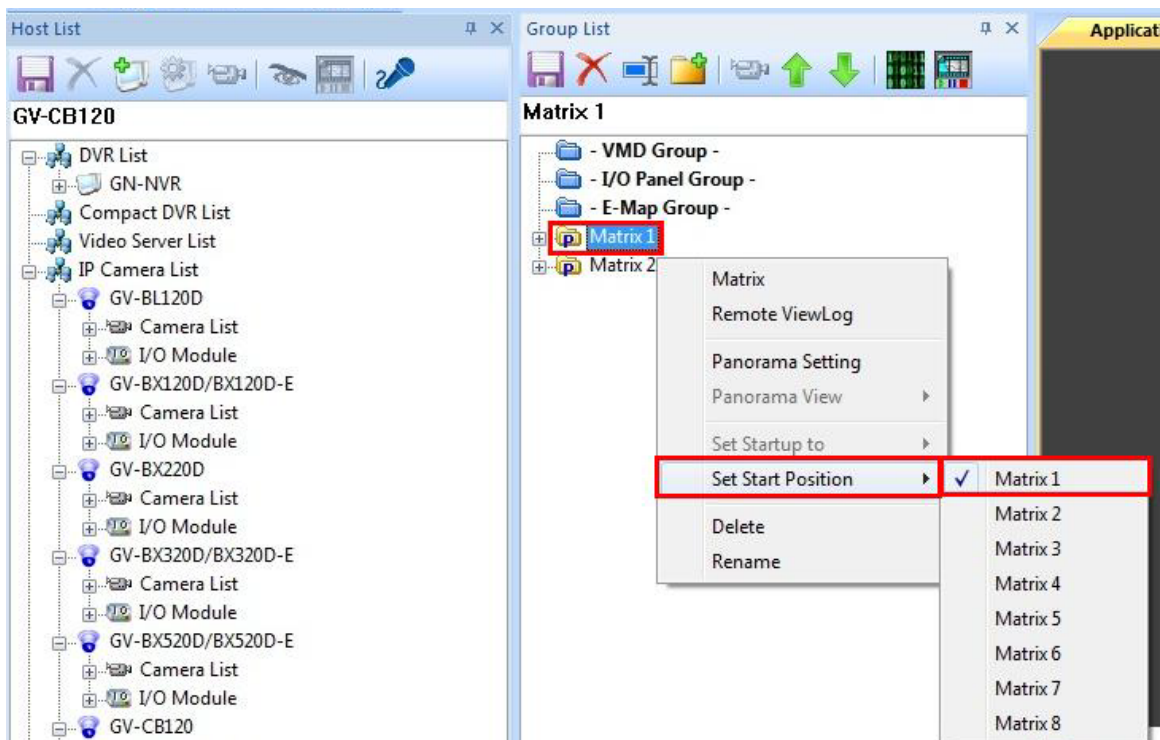


14. Repeat steps 12 and 13 for other Matrices and applications, if applicable, until all applications are in correct positions and resolutions.



15. Under Group List, right-click on each Matrix folder and select “**Set Start Position**” to designate the Matrix order number for each Matrix.

- ✓ Once Matrix number is designated, the specific Matrix folder will open up at the position defined in the previous step.



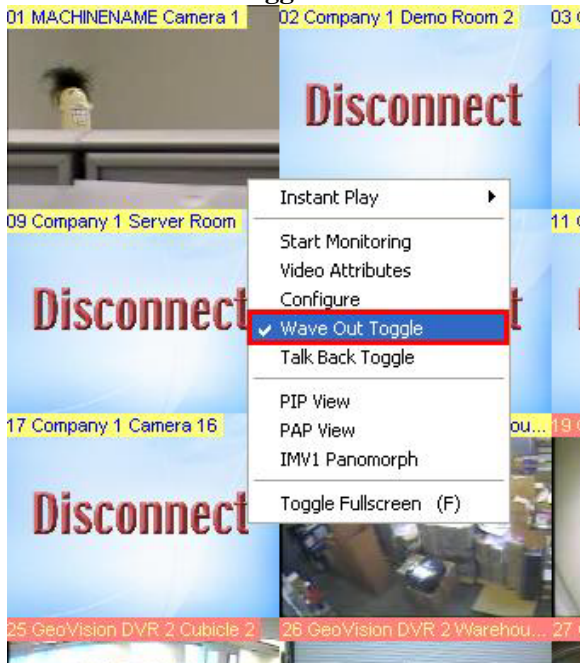
- ✓ For detail instruction, refer to p.62 of Control Center User Manual

## 3.6 Additional Features

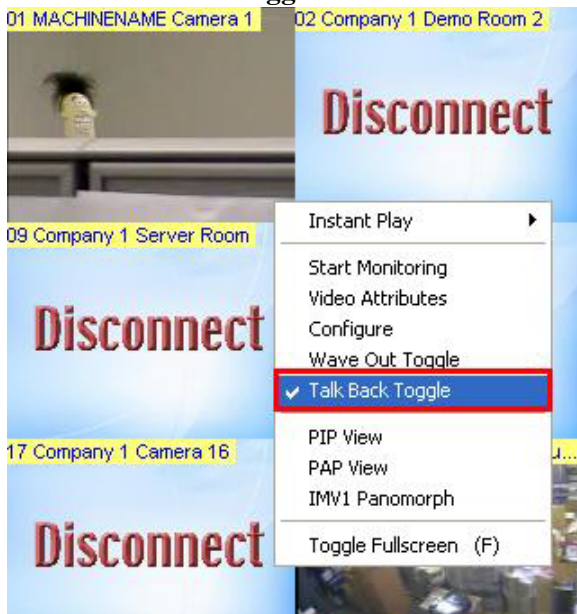
- ✓ The following settings can be configured in Control Center as optional add-on features

### 3.6.1 Two-way Audio

1. To initiate two-way audio between host and Control Center, right-click on the desired channel to bring up menu list under Matrix view.
2. Select **“Wave Out Toggle”** to hear audio from the camera.



3. Select **“Talk Back Toggle”** to broadcast audio to the desired host.



- ✓ For detail instruction, refer to p.68 of Control Center User Manual

## 4. Point of Sale

### 4.1 Introduction

Point-of-sale (POS) integration with GeoVision DVR/NVR can effectively utilize video as digital receipts with live transaction data overlay live on screen. The data recorded will be stored in its own database and associated with video playback. For loss prevention, the data can also be associated with E-mail/ audio alerts or physical outputs. GeoVision offers two different POS integrations through Data Capture Box V3E and POS Text Sender.

### 4.2 Main Features

- ✓ Keywords Highlight, I/O Triggering
- ✓ Abnormal Transaction Alert
- ✓ POS Live View through Webcam
- ✓ POS Field Filter
- ✓ Quick search and Advanced search

### 4.3 System Requirements

#### 4.3.1 Data Capture Box V3E

For traditional POS cash registers such as Samsung ER650 and RUBY Super System, which text receipts are sent out through DB9 or DB25 ports, POS integration can be done via Data Capture Box V3E.

1. POS cash register must send out **text** via DB9 or DB25 serial or parallel port.
- ✓ To verify POS cash register's output file, it is necessary to utilize **Windows HyperTerminal** to determine POS cash register's compatibility with GV-DVR. Refer to section 4.4 below.

#### 4.3.2 POS Text Sender

For Windows-based POS system such as Micros, which POS is an application installed on a PC, POS integration can be done via POS Text Sender application.

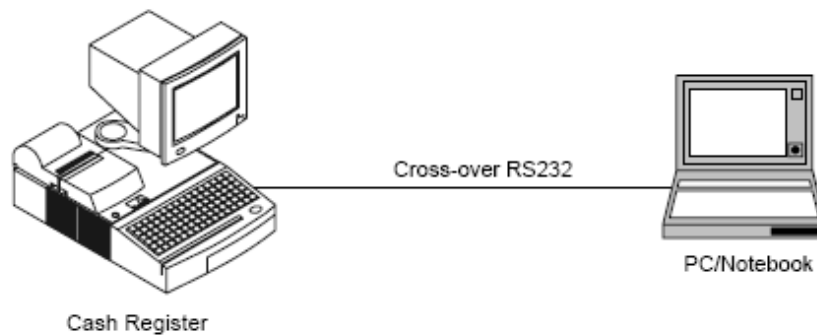
1. Windows-based POS cash registers only.
  2. POS application must store its database in either **.jnl**, **.ini**, or **.txt** format.
- ✓ Refer to POS application's user manual to verify supported database file types and location.

## 4.4 HyperTerminal Test

- ✓ 1 x **Crossover DB9 serial cable** is required to perform HyperTerminal test (not included in the package).
- ✓ 1 x PC or laptop with at least one available serial COM port is required (no GeoVision software necessary).

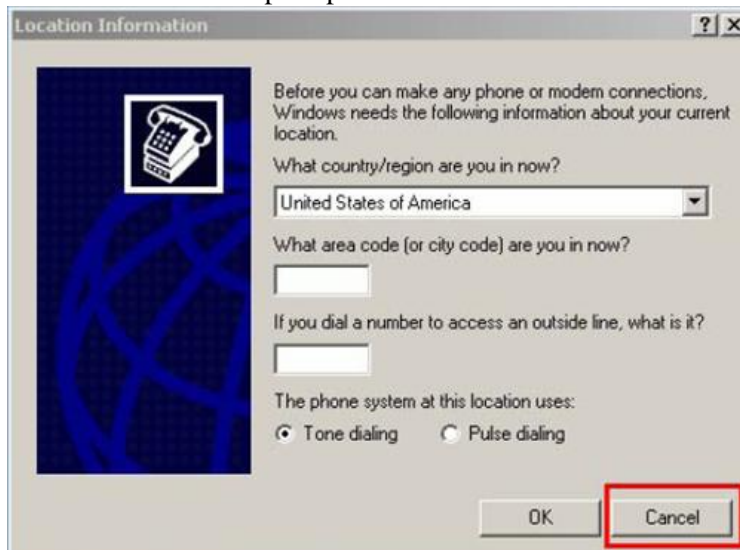
### 4.4.1 Connection

1. Connect one end of **Crossover DB9 cable** on the POS cash register's DB9 output.
2. Connect the other end of **Crossover DB9 cable** on a COM port of PC or a laptop that is running Windows HyperTerminal.

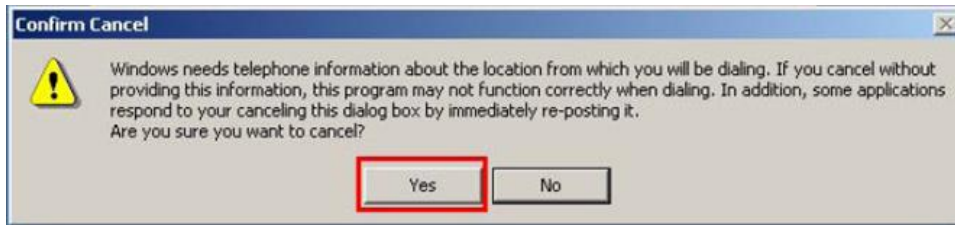


### 4.4.2 Setup

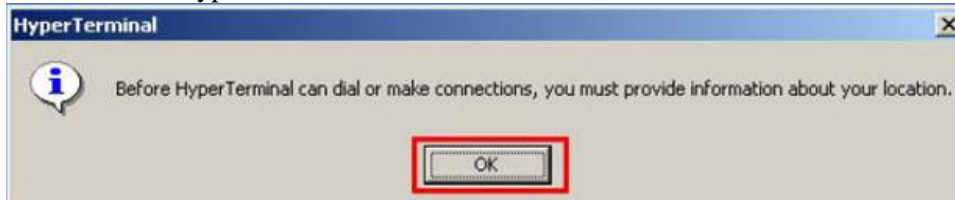
1. On Windows desktop, click on “**Start**”, “**All Programs**”, “**Accessories**”, “**Communications**”, then “**HyperTerminal**”.
  - ✓ *HyperTerminal may not be available by default in Windows Vista. Download alternative software such as <http://www.hilgraeve.com/hyperterminal.html>.*
2. Click “**Cancel**” when prompted location information.



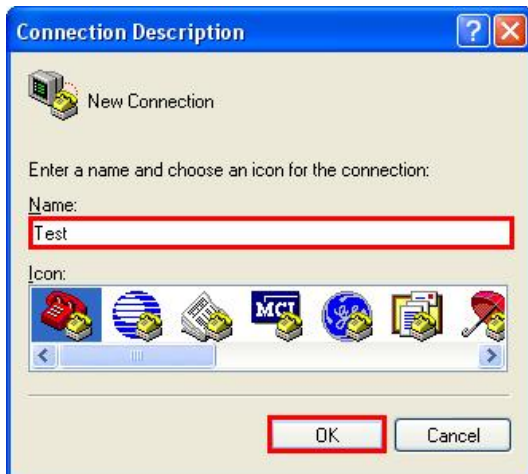
3. Click “Yes” to confirm cancellation.



4. Click “OK” to bypass location information.



5. Name the connection.



6. Select COM port that is used for communication on the PC (step 2, section 4.4.1).



- ✓ If there is only one COM port on the PC, by default it is COM 1. However, if there are multiple COM ports or the connection is done through USB, verify the correct COM port number under **Device Manager**, then “**Ports**”.

7. Select **Bits per second** (Baud Rate) according to your POS setting.

✓ ***Bits per second** (Baud Rate) is POS specific. Therefore, refer to POS cash register user manual or online resource to determine the correct baud rate.*

8. Adjust **Data bits**, **Parity**, and **Stop bits**, only if the POS cash register is not using default values as shown. Otherwise, proceed to next step.

9. Select “**None**” for Flow control.

10. Click “**OK**”.

11. Input transactions on cash register and the transactions should appear in the HyperTerminal screen.

12. Compare HyperTerminal transactions with actual printed receipts.

a. **100% the same.**

i. Proceed to Data Capture Box V3E Setup.

b. **90% the same** with some consistent garbage text in each transaction line.

i. A modified file can be created base on the **HyperTerminal result snapshot** and **scanned image of the actual receipt** reflecting the same transaction.

c. **100% garbage text.**

i. Verify POS output file type with POS manufacturer, if output file is graphic instead of text, a **Graphic Mode USB Key** is required to overlay images on GV-DVR.

ii. Check or try different baud rates (step 7) and verify the result.

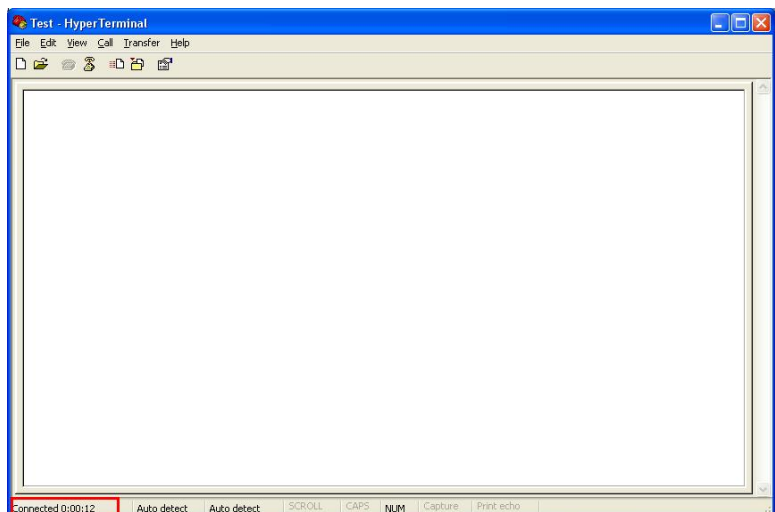
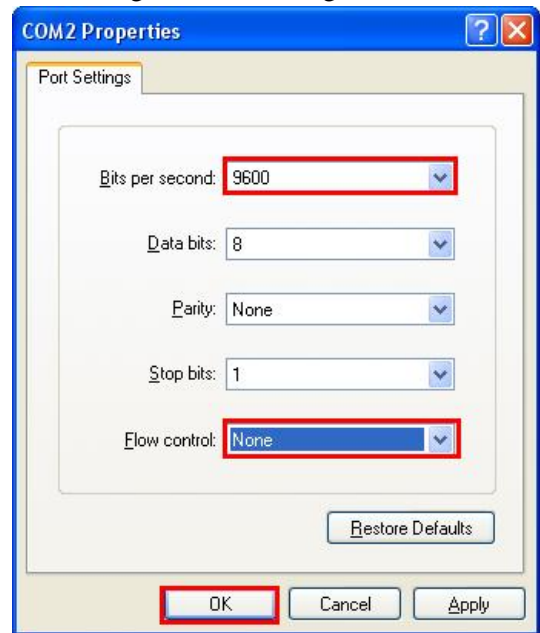
d. **Nothing appears on screen.**

i. Wrong COM port selected in step 6.

ii. Baud rate selected in step 7 does not match that of POS cash register.

iii. POS cash register does not send out any text output through its RS232 port.

Check POS output settings on the cash register.

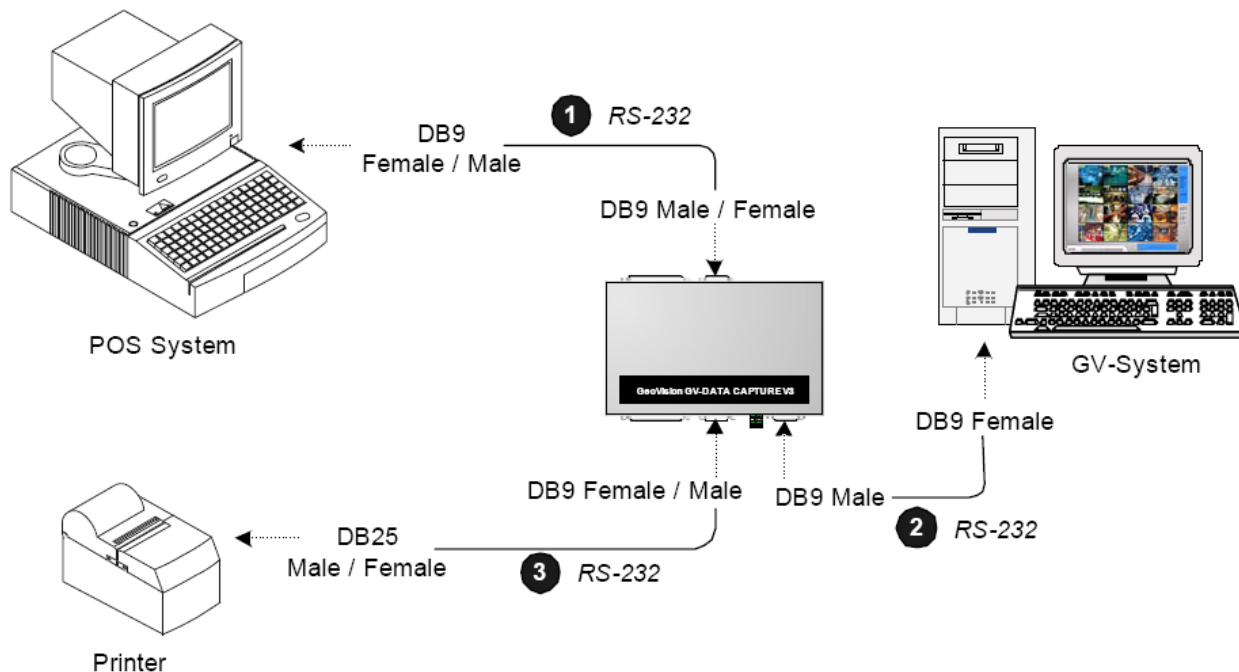


## 4.5 Data Capture Box V3/V3E

- ✓ **HyperTerminal test** (section 4.4) must be verified prior to connecting a Data Capture Box to ensure text overlay compatibility.

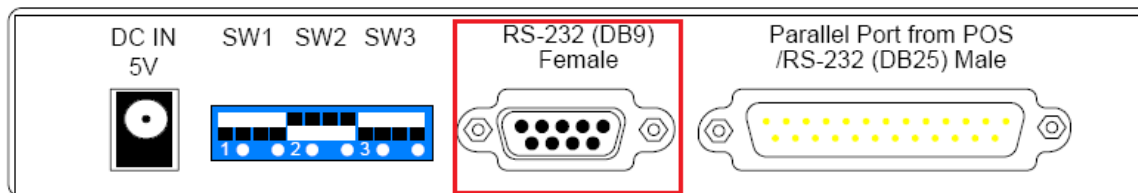
### 4.5.1 DB9 Connection

- ✓ Applicable device: Data Capture Box V3 and/or Data Capture Box V3E



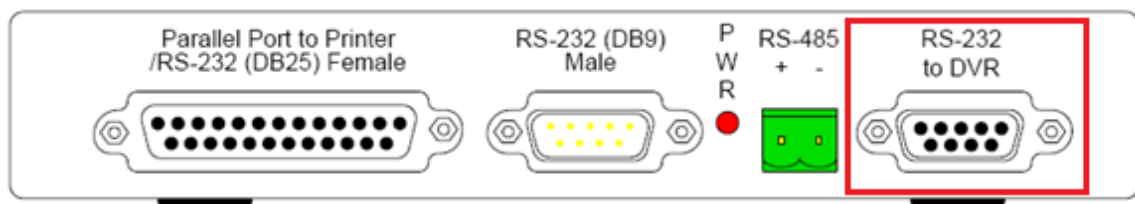
1. Connect DB9 cable from POS cash register output into back side of Data Capture Box V3/V3E using straight through DB9 cable (included in the package).

#### Rear Panel



2. Connect DB9 straight through cable from front side of Data Capture Box to GV-DVR (included in the package).

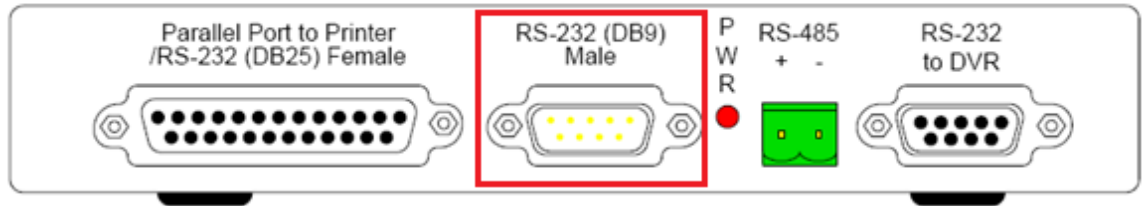
#### Front Panel



- ✓ Alternatively, if the distance between the DVR and Data Capture Box is greater than 32 ft, RS485 connection can be used instead of RS232.

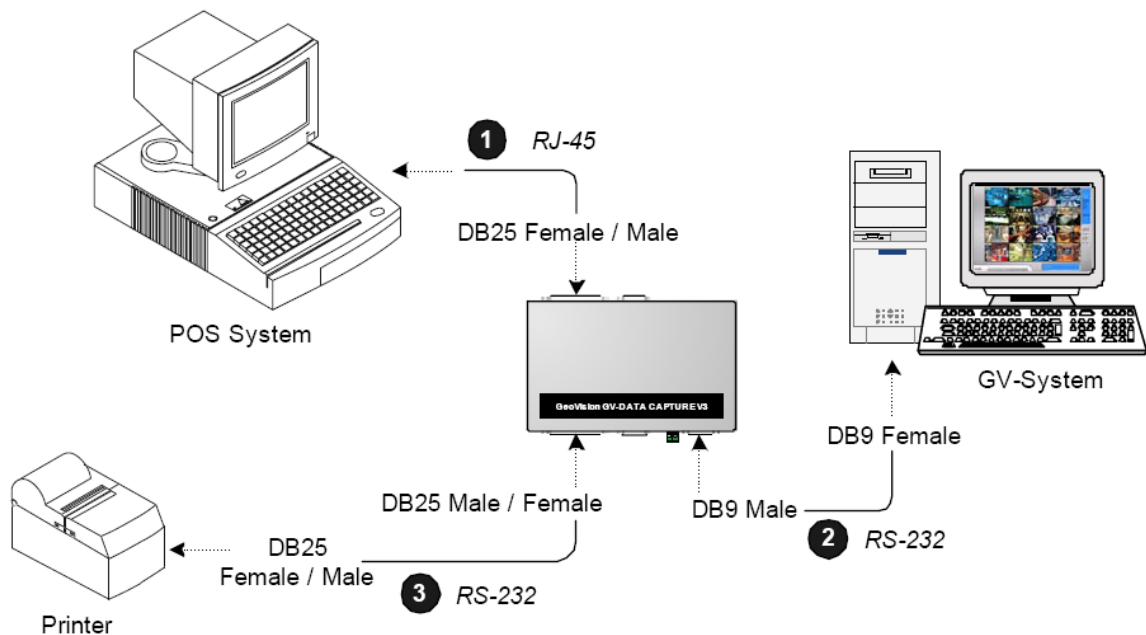
3. Connect DB9 straight through cable from front side of Data Capture Box to the receipt printer the same way as the printer would be connected normally.

#### Front Panel



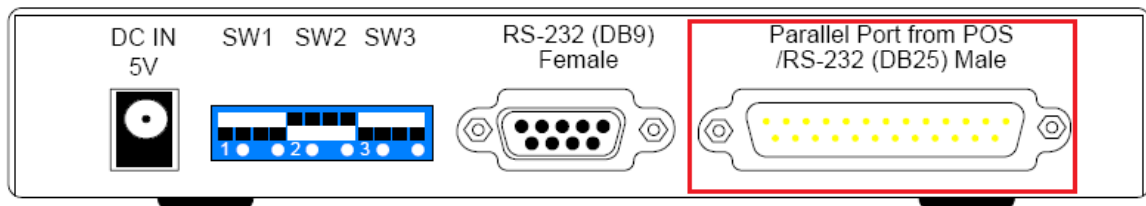
### 4.5.2 DB25 Serial Connection

- ✓ Applicable device: Data Capture Box V3 and/or Data Capture Box V3E



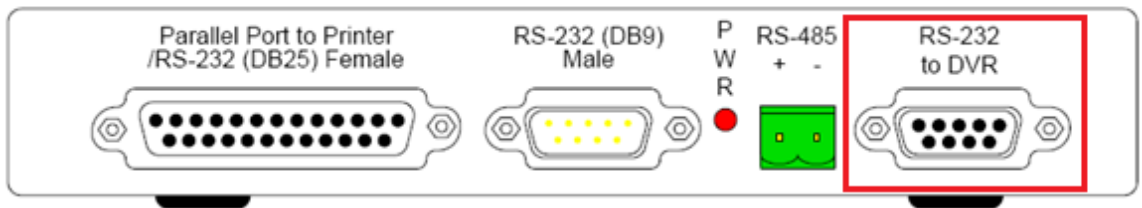
1. Connect DB25 cable from POS cash register output into back side of Data Capture Box V3/V3E using straight through RJ-45 to DB25 converter cable (supplied by POS cash register).

#### Rear Panel



2. Connect DB9 straight through cable from front side of Data Capture Box to GV-DVR (included in the package).

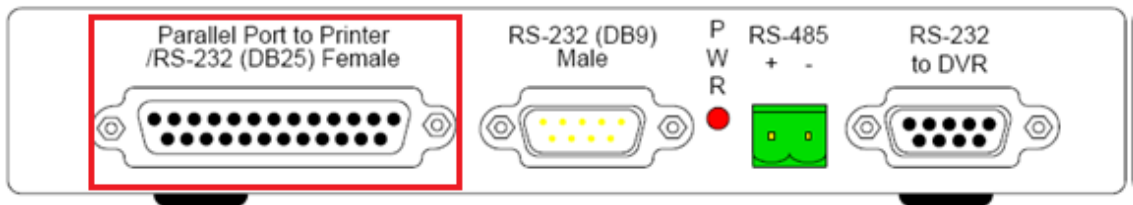
#### Front Panel



- ✓ Alternatively, if the distance between the DVR and Data Capture Box is greater than 32 ft, RS485 connection can be used instead of RS232.

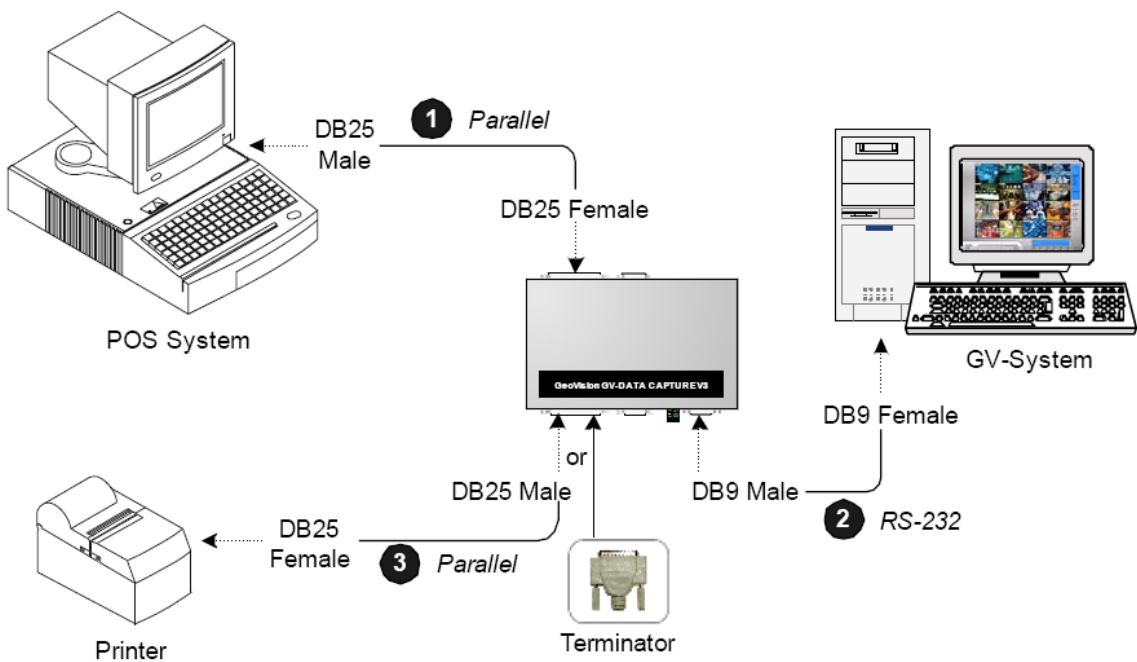
3. Connect DB25 straight through cable from front side of Data Capture Box to the receipt printer the same way as the printer would be connected normally.

#### Front Panel



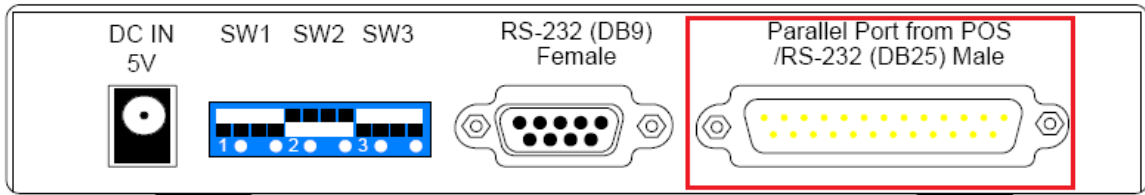
### 4.5.3 DB25 Parallel Connection

- ✓ Applicable device: Data Capture Box V3 and/or Data Capture Box V3E



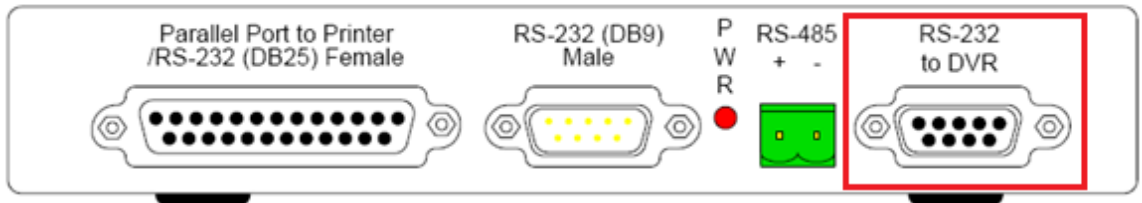
1. Connect DB25 cable from POS cash register output into back side of Data Capture Box V3/V3E using straight through DB25 cable (supplied by POS cash register).

#### **Rear Panel**



2. Connect DB9 straight through cable from front side of Data Capture Box to GV-DVR (included in the package).

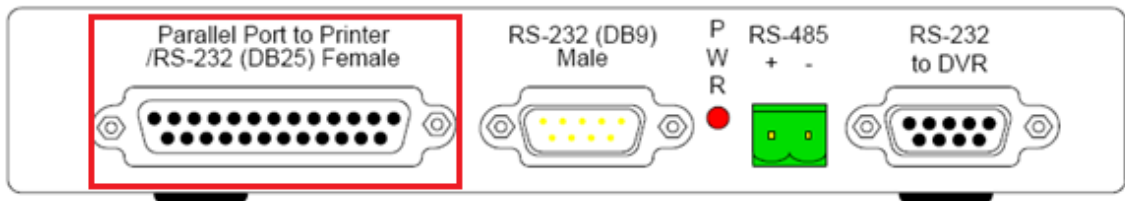
#### **Front Panel**



- ✓ *Alternatively, if the distance between the DVR and Data Capture Box is greater than 32 ft, RS485 connection can be used instead of RS232.*

3. Connect DB25 straight through cable from front side of Data Capture Box to the receipt printer the same way as the printer would be connected normally.

#### **Front Panel**

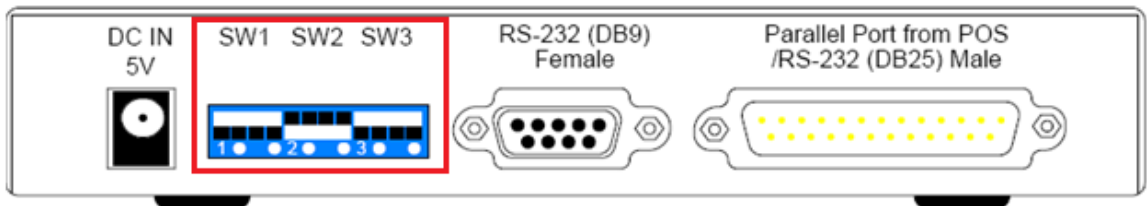








### **4.5.4 DIP Switch and Baud Rate**

- ✓ Applicable device: Data Capture Box V3 and/or Data Capture Box V3E

1. Adjust DIP switches located on the back side of Data Capture Box V3/V3E as follows:

#### **Rear Panel**



SW1	Up: Serial (Default) Down: Parallel	 Up	 Down
SW2	Up: DB25 Mode Down: DB9 Mode (Default)	 Up	 Down
SW3	Up: Non-crossover (Default) Down: Crossover	 Up	 Down

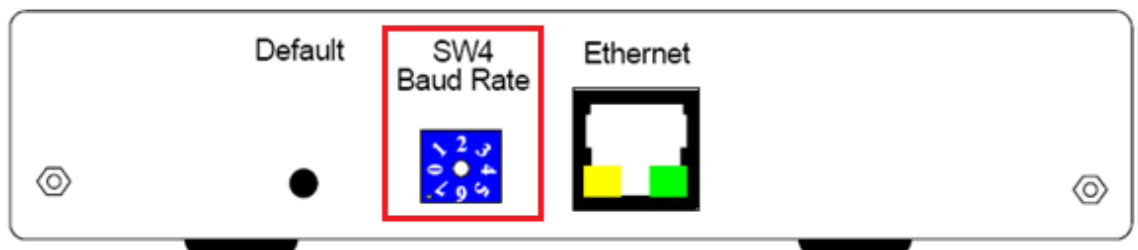
✓ Example DIP Switch settings for previous sections are as follows:

Connection Type	4.5.1 DB9 Serial	4.5.2 DB25 Serial	4.5.3 DB25 Parallel
SW1	Up	Up	Down
SW2	Down	Up	Up
SW3	Up	Up	Up

2. Adjust Baud Rate (SW4) so that it matches that of POS cash register.

✓ Refer to POS cash register's user manual or setup instruction for baud rate information.

### Side Panel

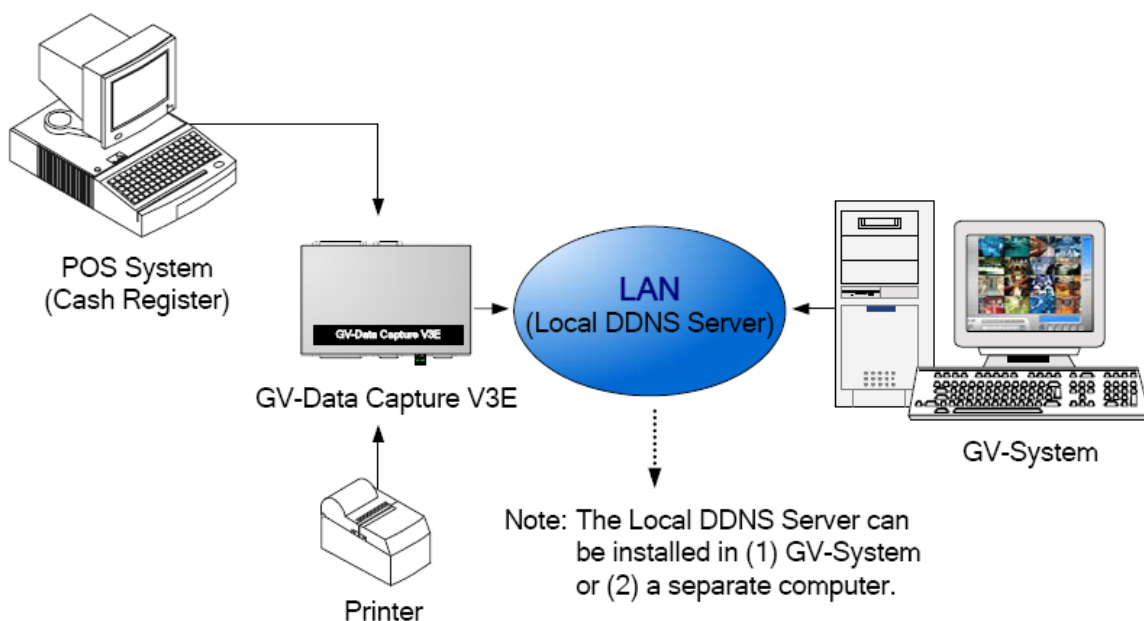


Switch Number	Baud Rate
0	115200 (default value)
1	57600
2	38400
3	19200
4	9600
5	4800
6	2400
7	1200

✓ Selecting incorrect baud rate will result in garbage text on screen

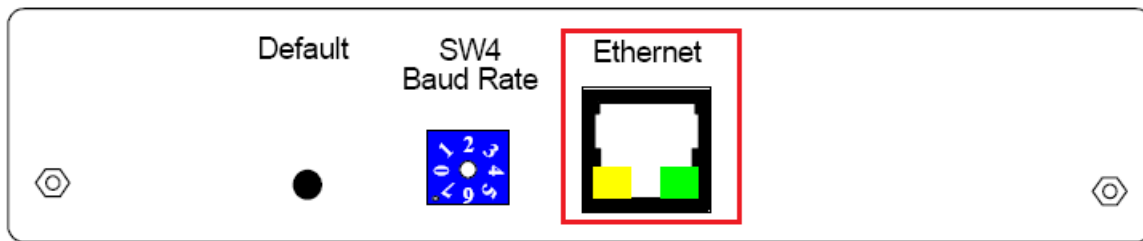
#### 4.5.5 Ethernet Connection

- ✓ Applicable device: Data Capture Box V3E
  - ✓ *Data Capture Box V3E has default network properties of **IP address** 192.168.0.100, **Subnet Mask** 255.255.255.0, and **Default Gateway** 192.168.0.1.*
  - ✓ *Data Capture Box V3E has ID **admin** and password **1234**.*
  - ✓ *Prior to connecting to a network, it is necessary to confirm that the network properties of the Data Capture Box V3E match that of the actual network in which the Data Capture Box V3E will be used. See section 4.5.6 for network configuration.*



1. Connect POS cash register to Data Capture Box V3E by following step 1 of section 4.5.1 (DB9 connection), section 4.5.2 (DB25 serial connection), or section 4.5.3 (DB25 parallel connection).
2. Connect Data Capture Box V3E onto local network via Ethernet port on the side.

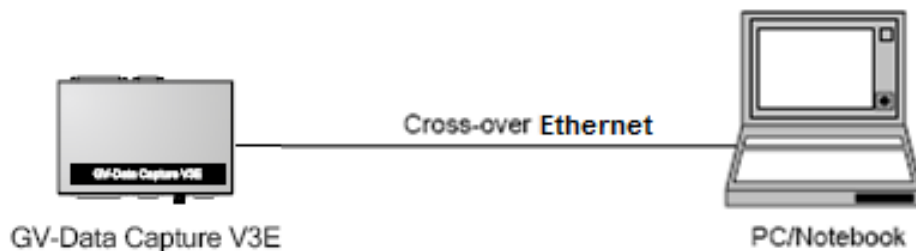
##### **Side Panel**



3. Connect Data Capture Box V3E to receipt printer by following step 3 of section 4.5.1 (DB9 connection), section 4.5.2 (DB25 serial connection), or section 4.5.3 (DB25 parallel connection).

#### 4.5.6 Network Configuration

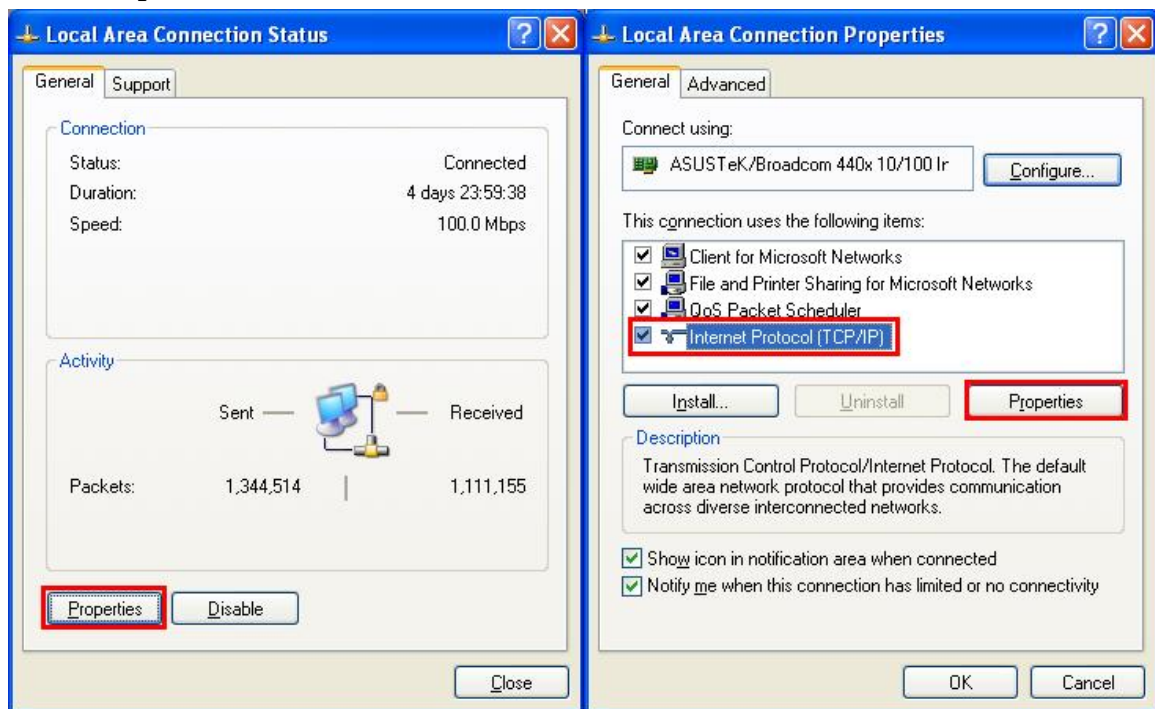
- ✓ Applicable device: Data Capture Box V3E
- ✓ 1 x **Ethernet cable** is required for direct Data Capture Box V3E to PC/laptop connection.



1. Connect Data Capture Box V3E with a PC/laptop via an **Ethernet cable**.
2. On the PC/laptop, click on “Start”, “Control Panel”, then “Network Connections”.



3. Double-click on “**Local Area Connection**”.
4. Click “**Properties**”.

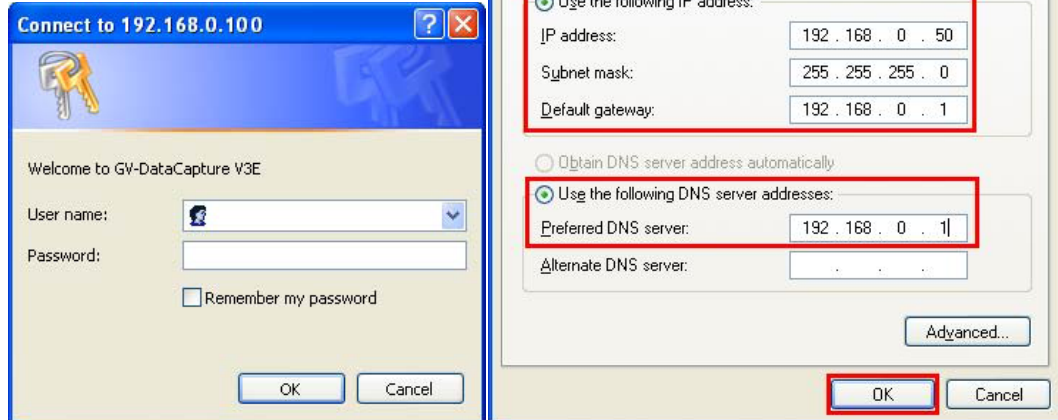


5. Highlight “**Internet Protocol (TCP/IP)**”, select “**Properties**”.
6. Select “**Use the following IP Address**”, then set PC/laptop’s network properties as follows:
  - a. IP Address: 192.168.0.50
  - b. Subnet Mask: 255.255.255.0
  - c. Default Gateway: 192.168.0.1
  - d. Preferred DNS Server: 192.168.0.1

7. Click “OK”.
8. Open Internet Explorer, go to <http://192.168.0.100>.

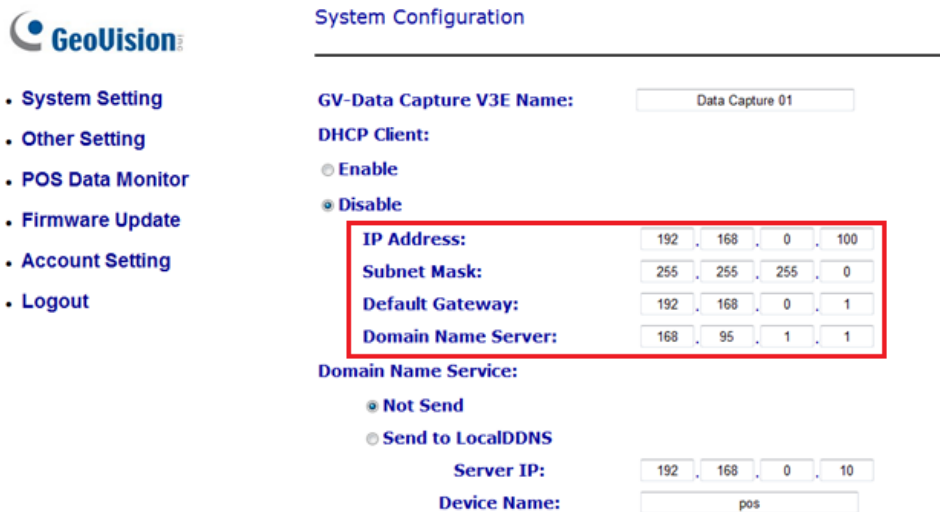
✓ *If page cannot be opened, verify Ethernet connection and make sure that Data Capture Box V3E is powered ON.*

9. Enter default User name “admin” and password “1234”, click “OK”.



10. Change **IP Address**, **Subnet Mask**, **Default Gateway**, and **Domain Name Server** so they match the network properties of the desired network.

✓ *In order to prevent IP conflict, it is necessary to configure the Data Capture Box V3E with an IP address that is not yet taken in the network*



11. Double check the new network properties of the Data Capture Box V3E, click “Submit”.
12. Connect Data Capture Box V3E back in original desired network.

✓ *Ping Data Capture Box V3E with its new IP address. If there is no response, load default on Data Capture Box V3E then restart from step 1.*

- ✓ For detail instruction, refer to p.12 of Data Capture Box V3E User Manual

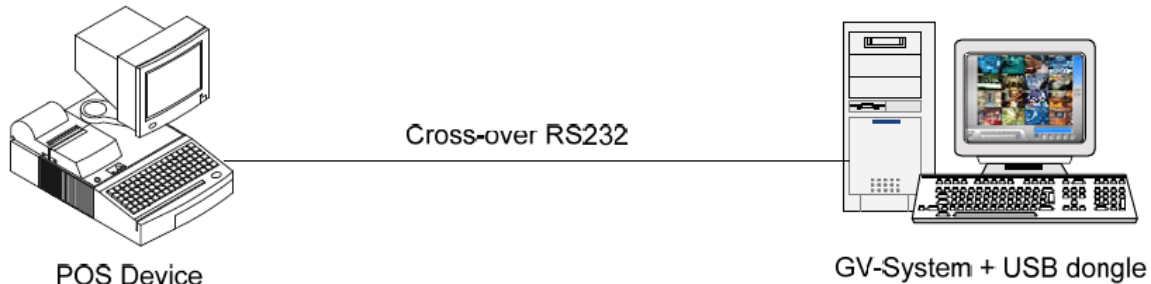
## 4.6 POS Text Sender

- ✓ *Windows-based POS software must support either .txt, .ini, or .jnl file extension database in order to ensure text overlay compatibility.*

**\*\* GeoVision POS Text Sender also supports Listening Ports, as well as Microsoft OPOS Print Drivers, now!**

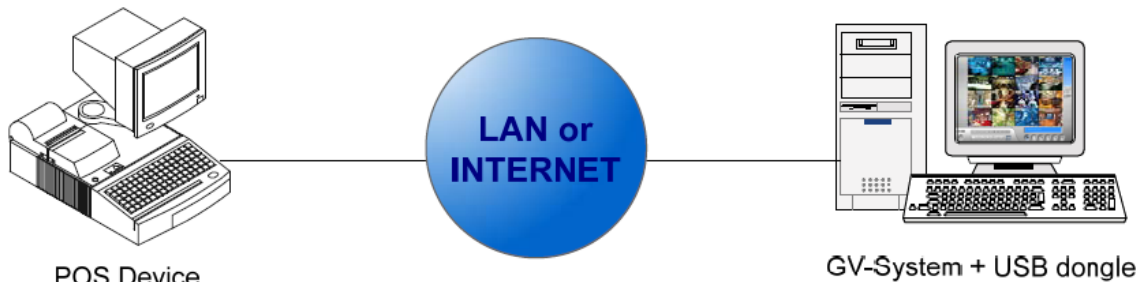
### 4.6.1 DB9 Connection

- ✓ 1 x **Crossover DB9** cable is required.



1. Connect one end of **Crossover DB9** cable on the POS cash register's DB9 output.
2. Connect the other end of **Crossover DB9** cable on a GV-DVR COM port.

### 4.6.2 Ethernet Connection



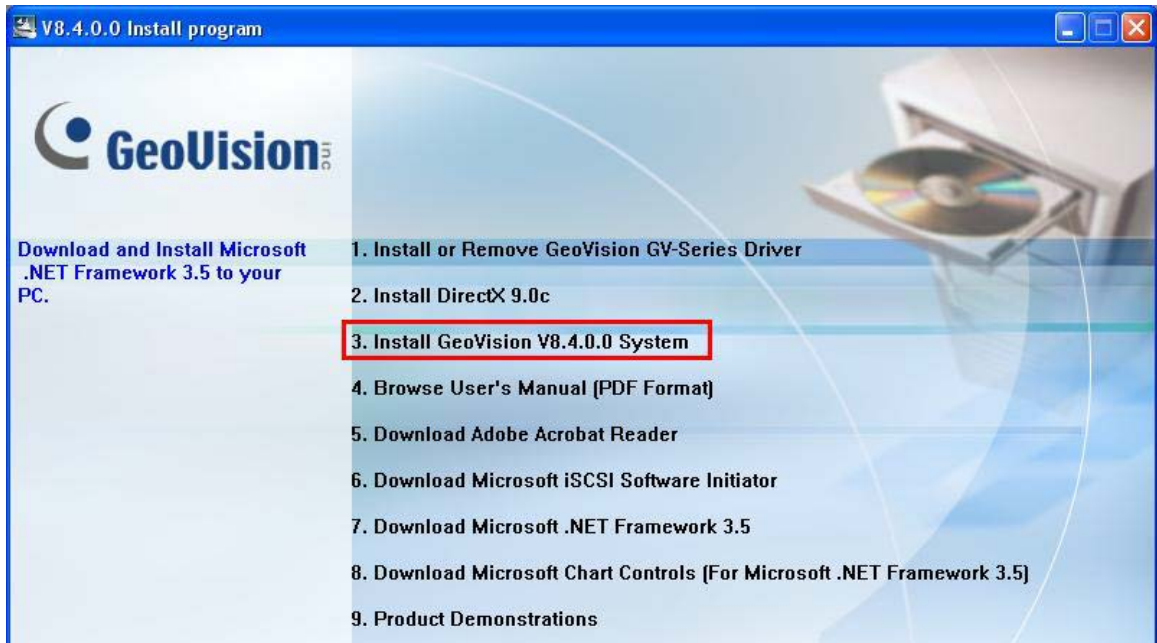
1. Connect Windows-based POS system onto the same network as GV-DVR.

- ✓ *Ping GV-DVR from POS system or vice versa to ensure communication.*

### 4.6.3 Installation

- ✓ *The following procedure is performed on Windows-based POS system.*

1. Insert "**v8.54 GeoVision Main System Installation Disk**" into DVD-ROM.
2. In the menu, select "**3. Install GeoVision v8.54.0.0 System**".



3. Click “Next” to go to next page.
4. Select “GeoVision POS Text Sender”.

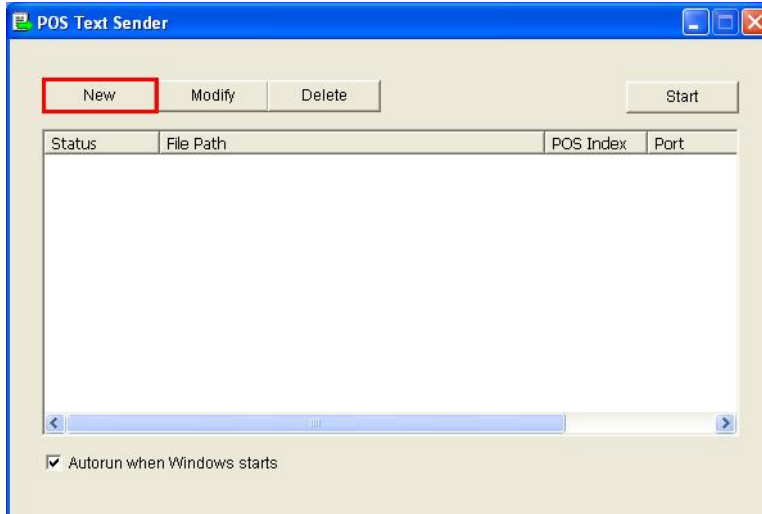


5. Follow on-screen instructions to complete installation.

#### 4.6.4 Setup

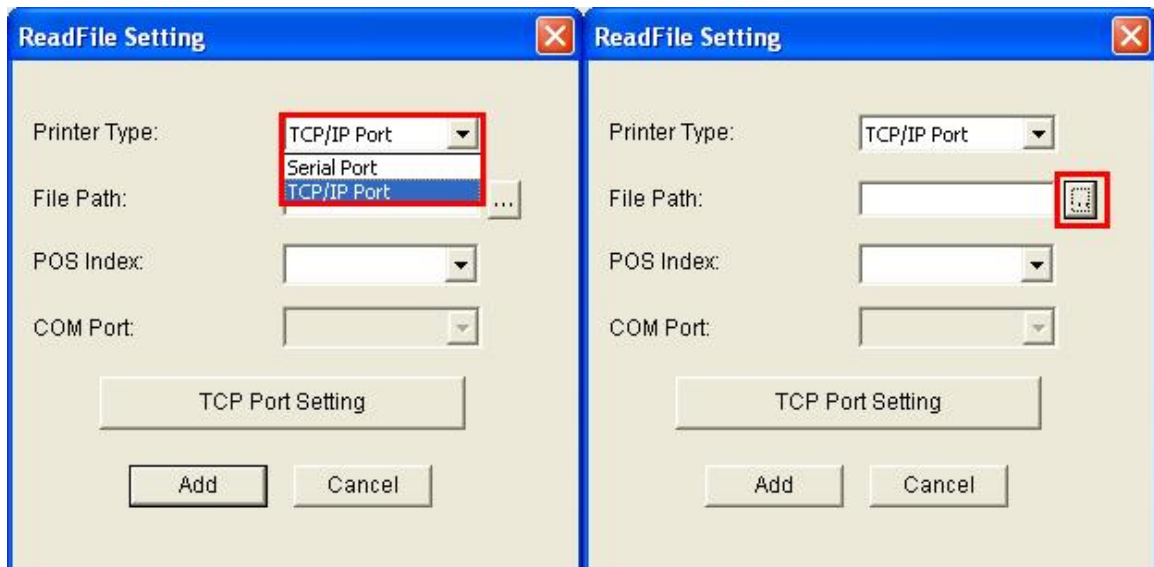
✓ The following procedure is performed on Windows-based POS system.

1. On Windows desktop, click “**Start**”, **Programs**”, “**POS Text Sender**”, then run “**POS Text Sender**”.
2. Click “**New**”.



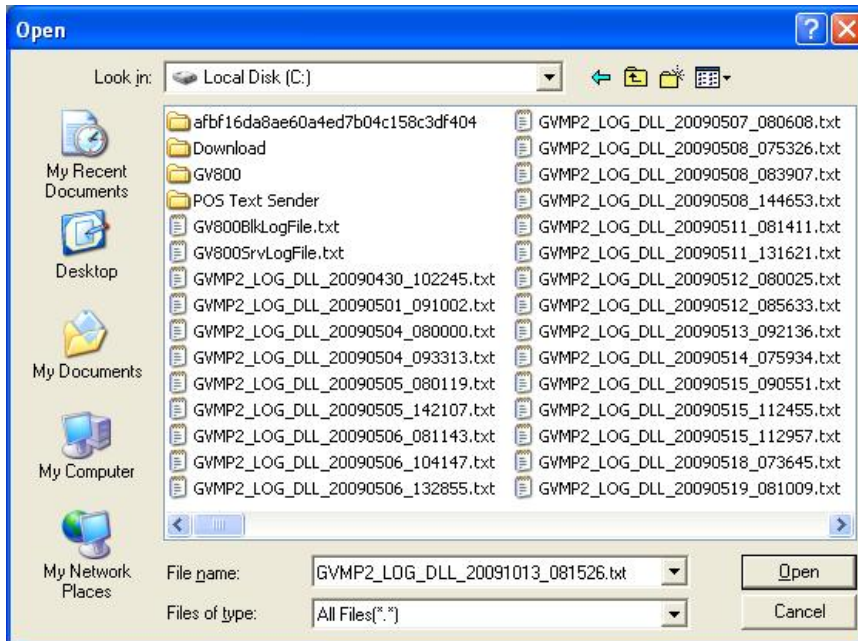
3. Select communication type “**Serial**” (section 4.6.1) or “**TCP/IP**” (section 4.6.2).

✓ If “**Serial**” is selected, proceed to step 11.



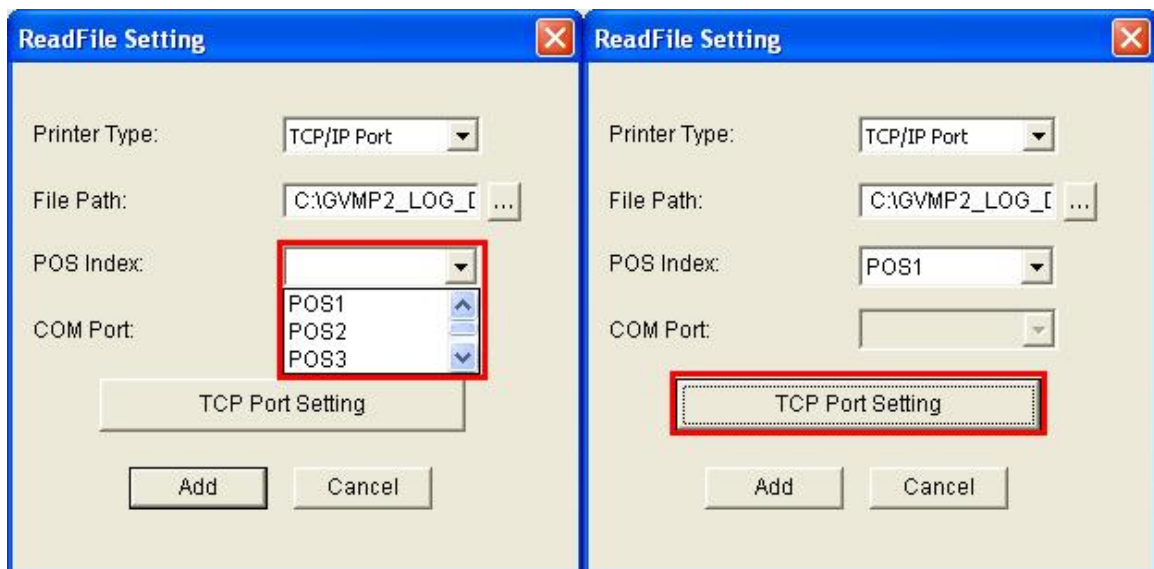
4. Click “...” to browse for file path.
5. Locate and select POS system’s database (.ini, .jnl, or .txt).

✓ Refer to POS system user manual to locate database type and location.



6. Click **“Open”**.
7. Select **POS Index**; use **POS1** for single POS connection.

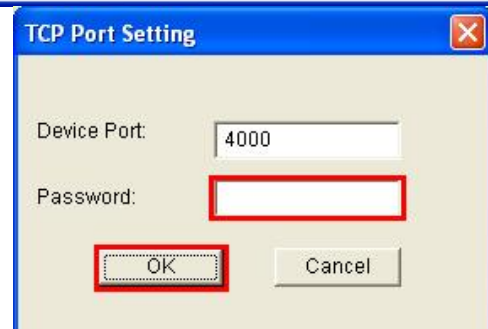
✓ *The index will help GV-DVR to differentiate among multiple POS Text Senders, if available.*



8. Click **“TCP Port Setting”**.
9. Enter **Password**, for example “1234”.

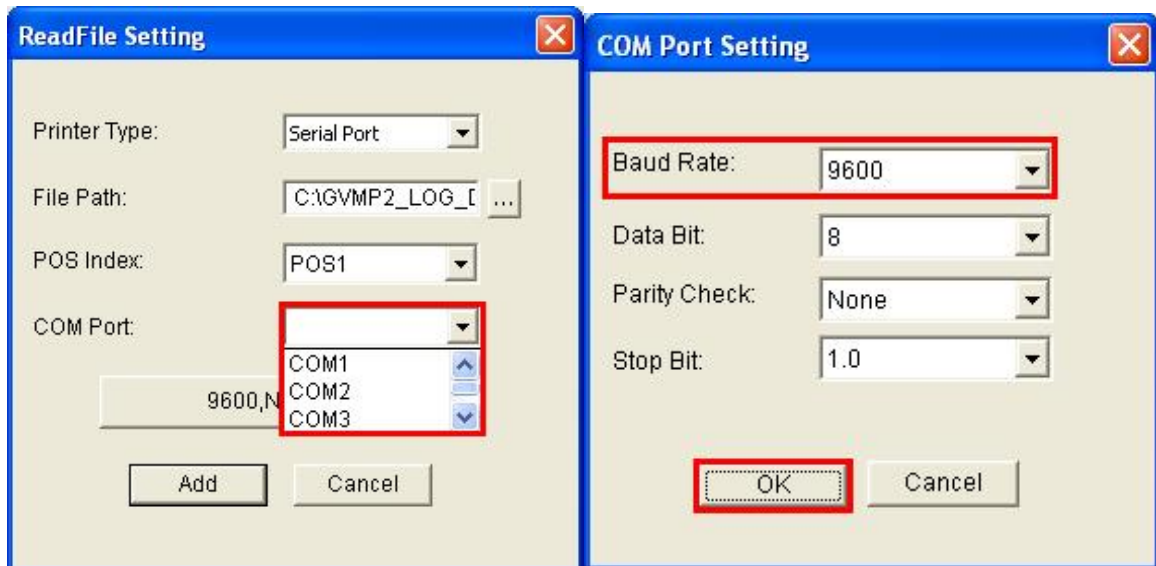
✓ *This password will be prompted when adding the POS Text Sender on GV-DVR.*

10. Click **“OK”**.



11. Alternatively, if **Serial Port** is selected in step 3, select **COM Port** in which the POS device is sending out its database files.

- ✓ *If there is only one COM port on the PC, by default it is COM 1. However, if there are multiple COM ports or the connection is done through USB, verify the correct COM port number under **Device Manager**, then “**Ports**”.*

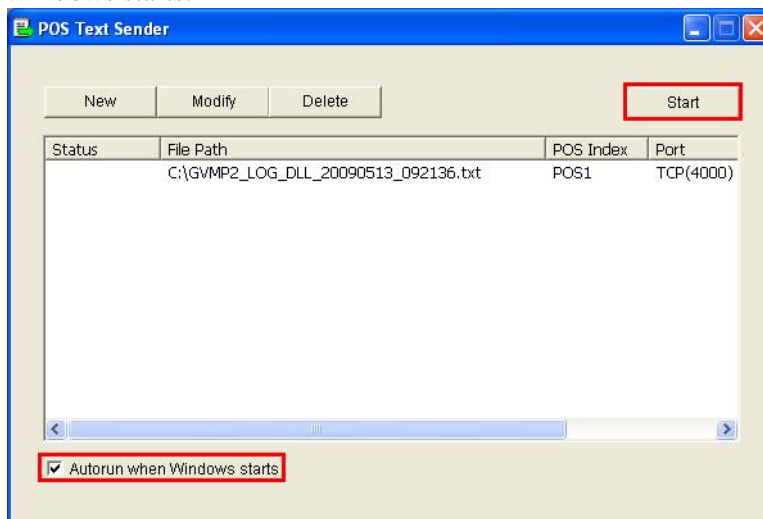


12. Select **Baud Rate**.

- ✓ ***Bits per second** (Baud Rate) is POS specific. Therefore, refer to POS cash register user manual or online resource to determine the correct baud rate.*

13. Click “**OK**”.

14. Check “**Autorun when Windows starts**” to allow POS Text Sender to start automatically when Windows starts.



15. Click “**Start**”.

- ✓ For detail instruction, refer to p.329 of v8.54 User Manual

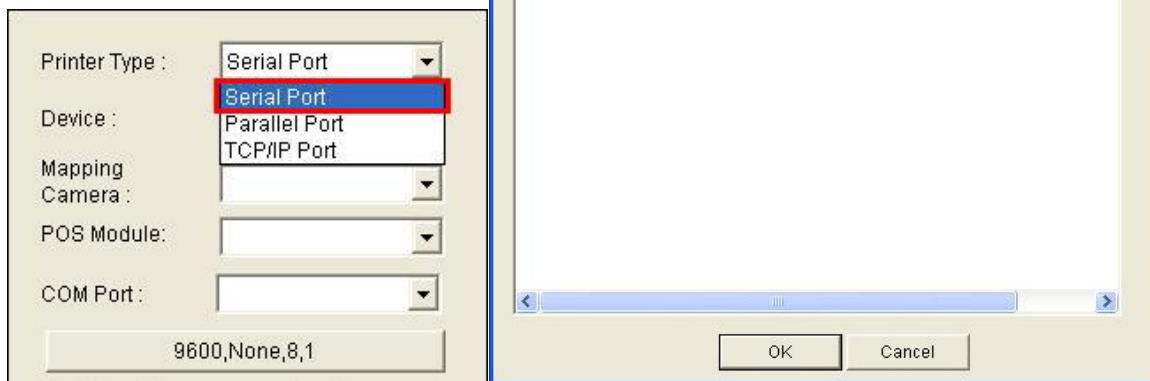
## 4.7 Multicam Setup

- ✓ The following procedure is performed on GV-DVR/NVR

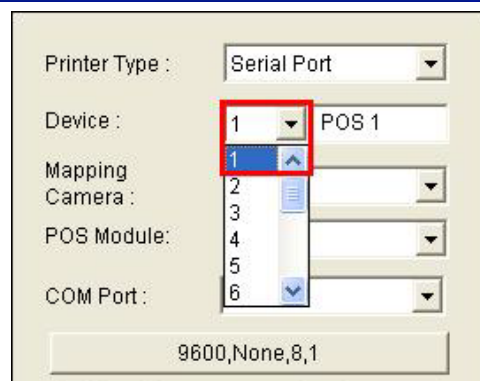
### 4.7.1 DB9 Setup

- ✓ The following procedure applies to both Data Capture Box V3/V3E (section 4.5.1 to 4.5.3) and POS Text Sender DB9 connection (section 4.6.1)

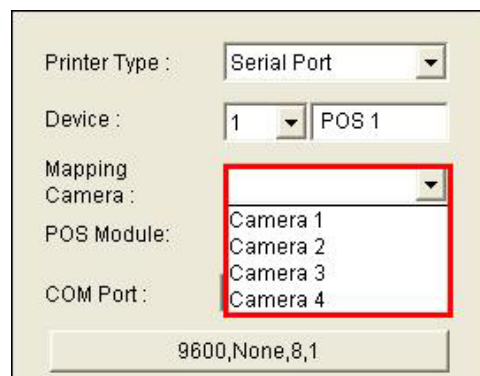
1. In Multicam, click on “Configure”, “Accessories”, “POS Application Setting”, “POS Device Setup”.
2. Click “New”.
3. Select “Serial Port” as Printer Type.



4. Select POS Device number, use “1” for first POS connection.
  - ✓ If multiple POS devices are connecting to the DVR, assign an index to each additional POS device in increasing order.
  - ✓ When using POS Text Sender, the device number selected has to match the **POS Index** as shown in step 7 in section 4.6.4.



5. Select “Mapping Camera” to map the POS overlay onto a camera.
  - ✓ One POS device can only overlay on one selected channel.
  - ✓ Once the channel has been mapped to a POS device, it cannot be mapped for another POS device.



6. Select “**POS Module**” to indicate POS type.
    - ✓ Select **General** if POS device does not specify a printer type
    - ✓ **Graphic Mode** can be used if the printer is sending out graphics instead of text. In order to use Graphic Mode, an extra Graphic Mode USB key is required.
  7. Select “**COM Port**” on DVR in which is used for POS data transmission.
    - ✓ If there is only one COM port on the PC, by default it is COM 1. However, if there are multiple COM ports or the connection is done through USB, verify the correct COM port number under **Device Manager**, then “**Ports**”.
  8. Click “**9600, None, 8, 1**”.
  9. Adjust **Baud Rate**, **Data Bits**, **Parity**, and **Stop bits** to match POS output properties.
    - ✓ **Bits per second (Baud Rate)** is POS specific. Therefore, refer to POS cash register user manual or online resource to determine the correct baud rate.
  10. Click “**OK**”.
  11. Click “**Add**” to add the POS device.
- ✓ Repeat steps 1 to 11 to add more POS devices.

Printer Type : Serial Port

Device : 1 POS 1

Mapping Camera : Camera 2

POS Module: Epson, General, GraphMode

COM Port : 9600,None,8,1

Printer Type : Serial Port

Device : 1 POS 1

Mapping Camera : Camera 2

POS Module: General

COM Port : COM 1, COM 2, COM 3, COM 4, COM 5

Printer Type : Serial Port

Device : 1 POS 1

Mapping Camera : Camera 2

POS Module: General

COM Port : COM 3

9600,None,8,1

Cash Drawer open signal

Baud Rate : 9600

Data Bits : 8

Parity: None

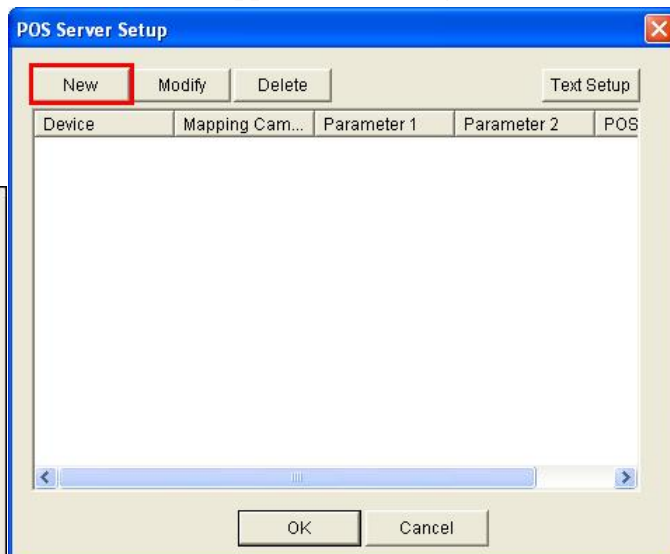
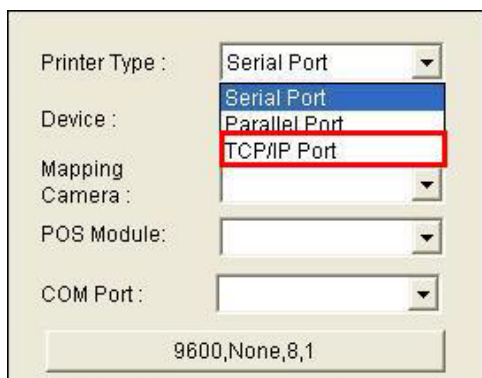
Stop bits : 1

OK Cancel

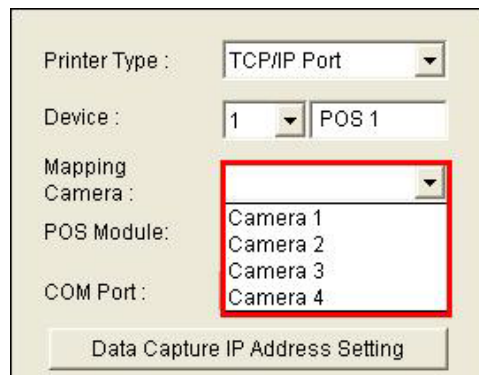
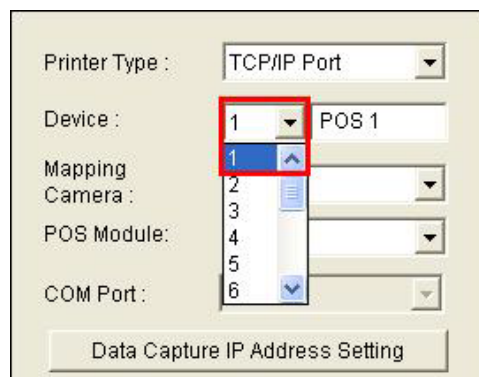
## 4.7.2 Ethernet Setup

- ✓ The following procedure applies to both Data Capture Box V3E (section 4.5.5) and POS Text Sender Ethernet connection (section 4.6.2).

1. In Multicam, click on “Configure”, “Accessories”, “POS Application Setting”, “POS Device Setup”.
2. Click “New”.
3. Select “TCP/IP Port” as Printer Type.



4. Select POS Device number, use “1” for first POS connection.
  - ✓ If multiple POS devices are connecting to the DVR, assign an index to each additional POS device in increasing order.
  - ✓ When using POS Text Sender, the device number selected has to match the **POS Index** as shown in step 7 in section 4.6.4.
5. Select “**Mapping Camera**” to map the POS overlay onto a camera.
  - ✓ One POS device can only overlay on one selected channel.
  - ✓ Once the channel has been mapped to a POS device, it cannot be mapped for another POS device.



6. Select **“POS Module”** to indicate POS type.
  - ✓ Select **General** if POS device does not specify a printer type
  - ✓ Select **POSTextSender** for POS Text Sender
7. Click **“Data Capture IP Address Setting”**.
8. Enter **Device IP** of Data Capture Box V3E (step 10 in section 4.5.6) or POS Text Sender (Windows-based POS system).
9. Enter **Password** of Data Capture Box V3E (section 4.5.5) or POS Text Sender (step 9 in section 4.6.4).
10. Click **“OK”**.

**Data Capture Box IP Setting**

☒ Fixed IP

Device IP : 192 . 168 . 0 . 100

☐ IP Info. in DDNS Server (\*\*\*.dipmap.com)

Domain Name :

☐ IP Info. in (GV-Data Capture) Local DDNS Server

Device Name :

☒ In Host ☐ In another PC

Local DDNS Server IP : 127 . 0 . 0 . 1

Browse Device Setting

Device Port : 4000

Login ID: admin

Password :

OK Cancel

Printer Type : TCP/IP Port

Device : 1 POS 1

Mapping Camera : Camera 2

POS Module: General

COM Port :

Data Capture IP Address Setting

Printer Type : TCP/IP Port

Device : 1 POS 1

Mapping Camera : Camera 2

POS Module: POSTextSender

COM Port :

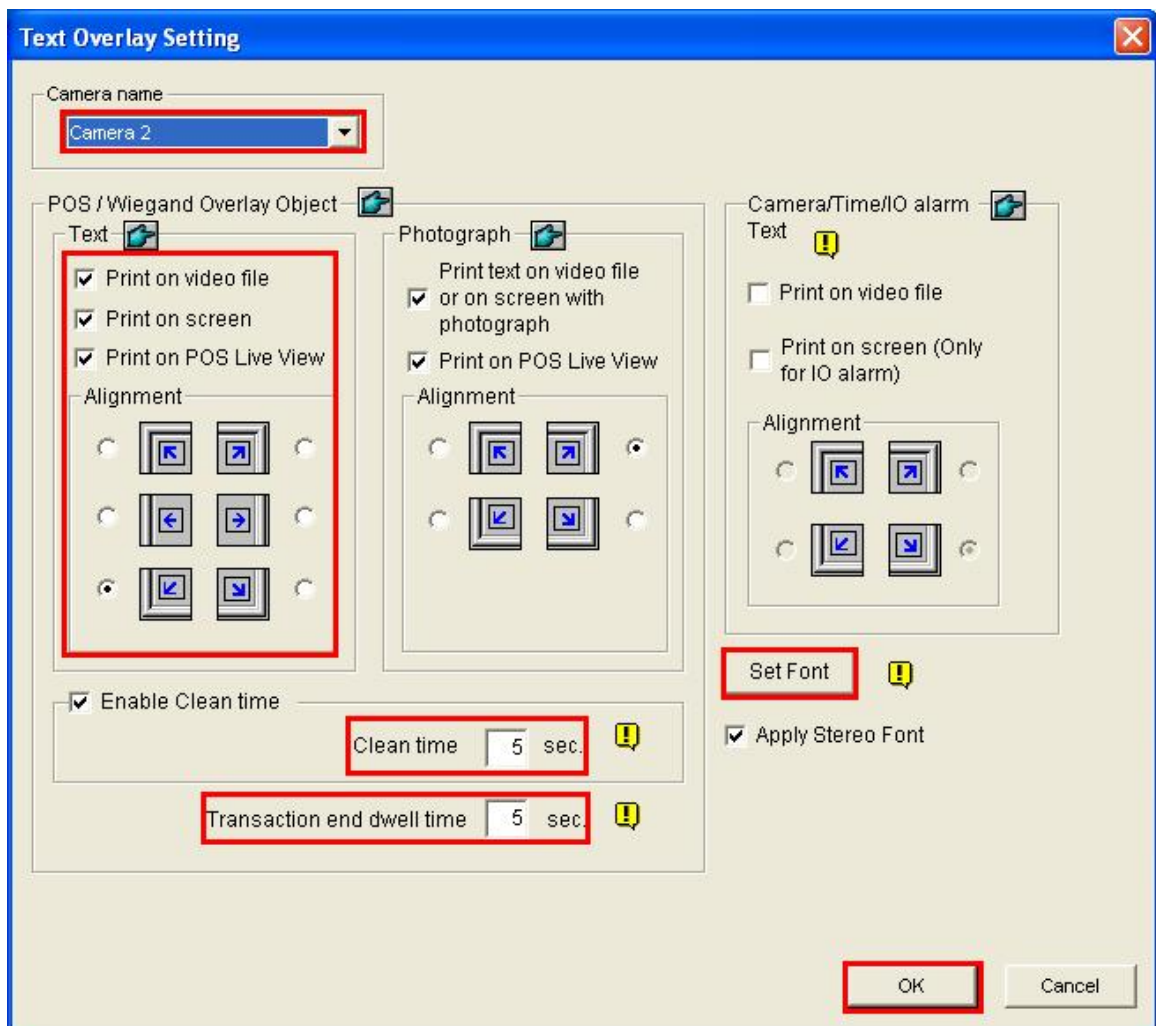
Data Capture IP Address Setting

☐ Cash Drawer open signal

11. Click **“Add”** to add the POS device.
  - ✓ Repeat steps 1 to 11 to add more POS devices.

### 4.7.3 Text Overlay Setting

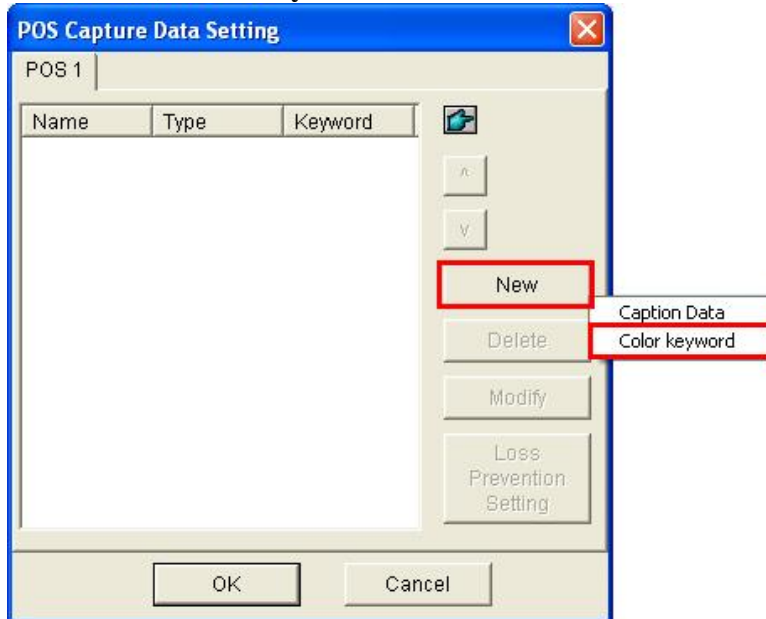
1. In Multicam, click on “Configure”, “General Setting”, “Text Overlay Setting”.
2. Select camera with POS text overlay.
3. Check or uncheck the options to have POS text overlaid on video file (recorded video), screen (live view), and/or POS Live View window.
4. Adjust “Clean time”.
- ✓ *Clean Time is defined as the time period in which POS text overlay will remain on screen after last transaction is received.*
5. Adjust “Transaction end dwell time”.
- ✓ *Transaction end dwell time is defined as the time period in which POS text overlay will remain on screen after receiving transaction stop event.*



6. Click “Set Font” to adjust text overlay font, size, and color.
7. Click “OK”.
- ✓ For detail instruction, refer to p.338 of v8.54 User Manual

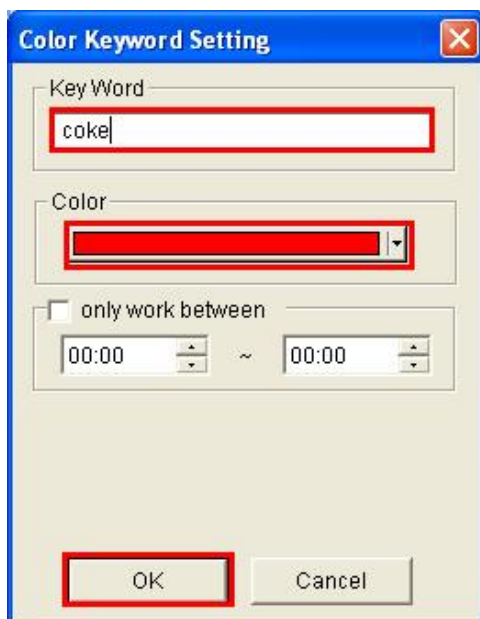
#### 4.7.4 Keywords Highlight

1. In Multicam, click on “Configure”, “Accessories”, “POS Application Setting”, “POS Field Filter Setup”.
2. Click “New”, “Color keyword”.



3. Enter the keyword to be highlighted, and select the desired highlight color.

✓ *The keyword is case sensitive*

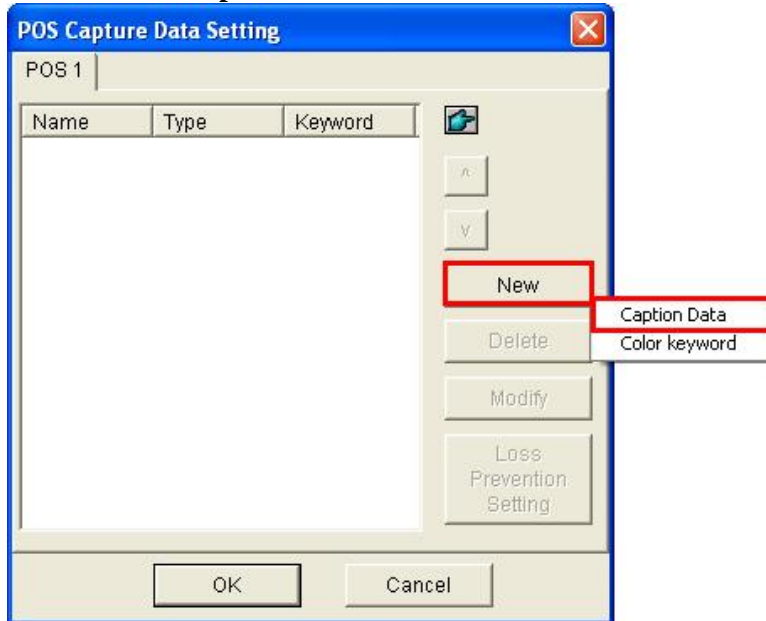


4. Click “OK”.
5. Click “OK” to apply keyword highlight on POS transactions.

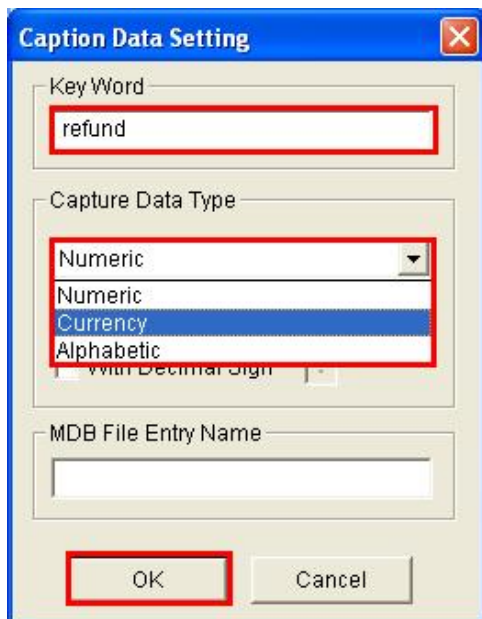
✓ For detail instruction, refer to p.349 of v8.54 User Manual

#### 4.7.5 Abnormal Transaction Alert

1. In Multicam, click on “Configure”, “Accessories”, “POS Application Setting”, “POS Field Filter Setup”.
2. Click “New”, “Caption Data”.

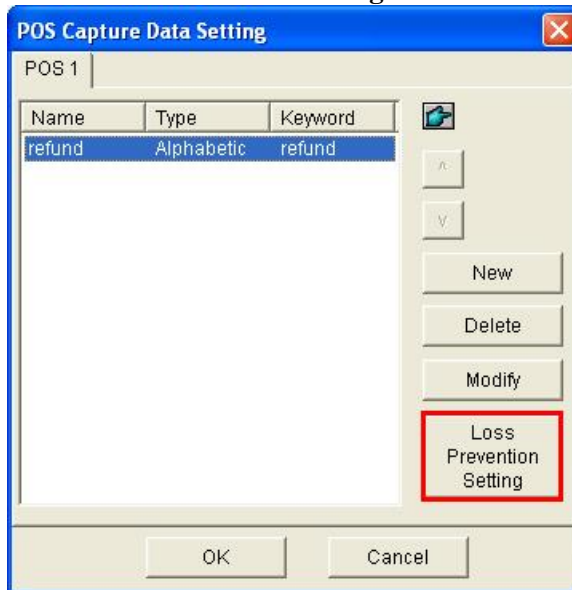


3. Enter the keyword to be monitored for loss prevention, and define the data type.
  4. Click “OK”.
- ✓ *Numeric or Currency data will have the option to include Comma and/or Decimal sign (i.e. 3,000, 2.678)*
  - ✓ *Alphabetic data will have the option to include space (i.e. New York).*

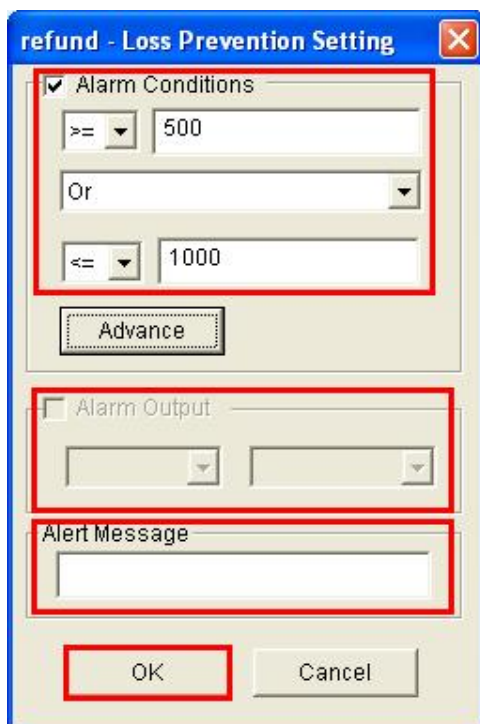


5. Click “OK”.

6. Click “Loss Prevention Setting”.



7. Check “Alarm Conditions” to setup optional boundaries associated with the alarm keyword.
  8. Check “Alarm Output” to trigger an output device when alarm condition is met.
  9. Type in “Alert Message” to be included in E-mail or SMS alerts when alarm condition is met.
- ✓ For detail instruction regarding e-mail alerts, refer to p.32 “E-mail Notification” in GeoVision Technical Handbook Part I.



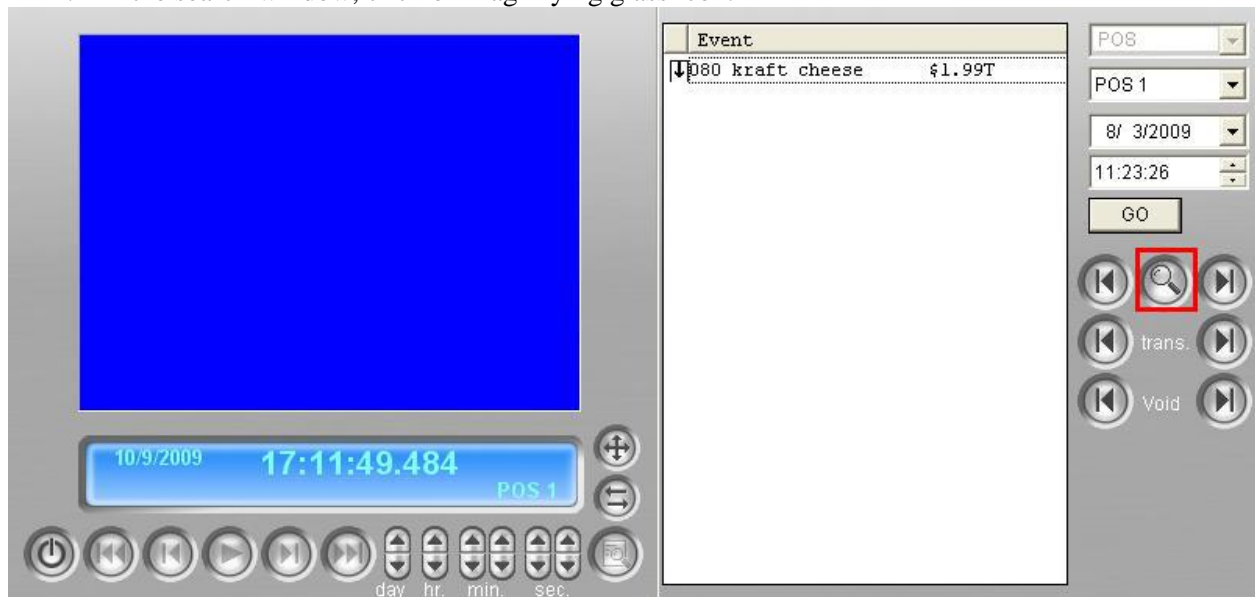
6. Click “OK”.
  7. Click “OK” to apply loss prevention settings on POS transactions.
- ✓ For detail instruction, refer to p.342 of v8.54 User Manual

## 4.8 POS Data Search

### 4.8.1 Local Search

- ✓ Local Search will search for the last transaction with a particular keyword

1. In Multicam, click on “Viewlog”, “Search POS Data”.
2. In the search window, click on magnifying glass icon.

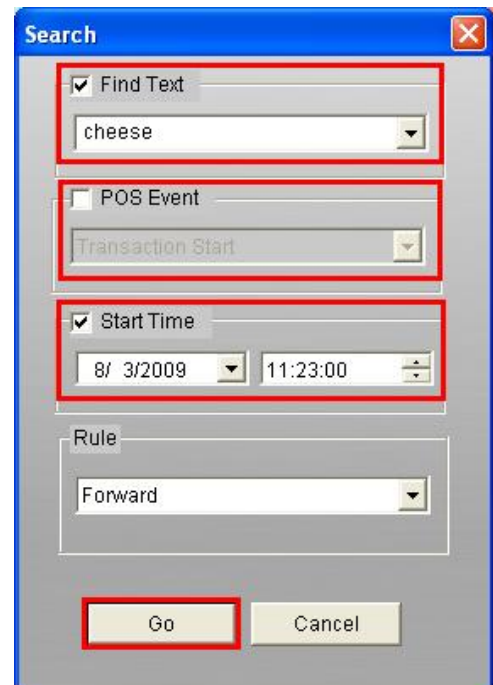


3. To search for particular item or text, check “**Find text**” then enter the keyword.

- ✓ *The keyword entered is case sensitive*

4. To search for POS Event, check “**POS Event**” then select desired event.
5. Check “**Start Time**” and set starting search time.
6. Click “**Go**” to start searching.

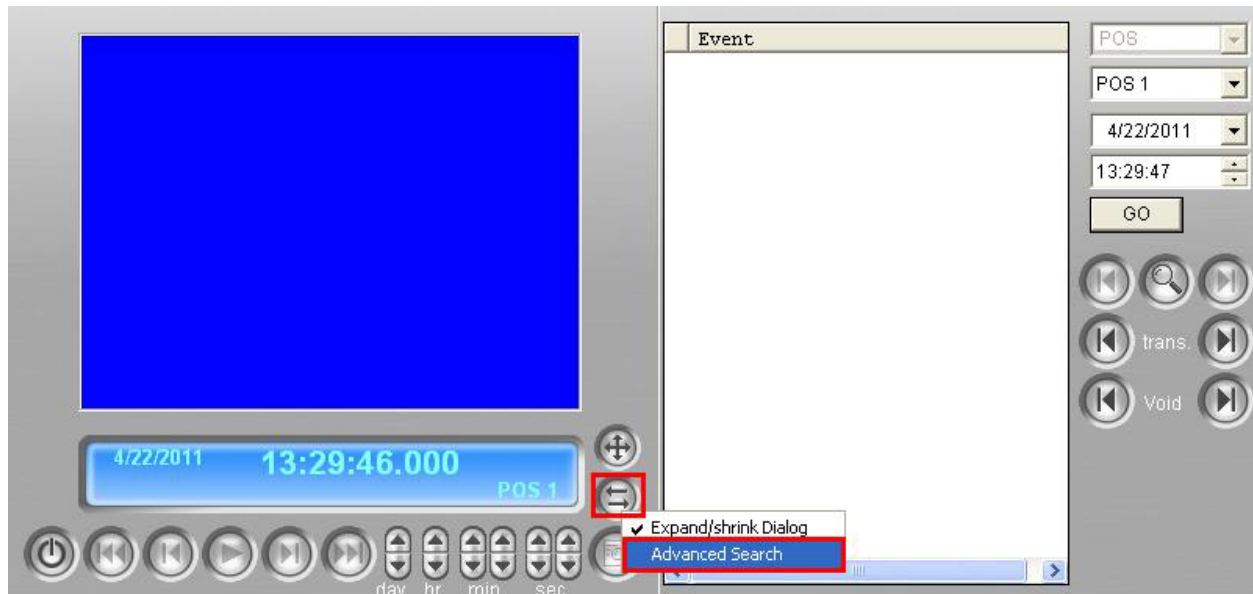
- ✓ *Recorded video will be displayed in the search window corresponding to POS event if available.*



## 4.8.2 Local Query

- ✓ Local Query will filter out transactions with a particular keyword in a defined time period

1. In Multicam, click on “**Viewlog**”, “**Search POS Data**”.
2. In the search window, click on “**Expand/Shrink Dialog**” icon.
3. Select “**Advanced Search**”.



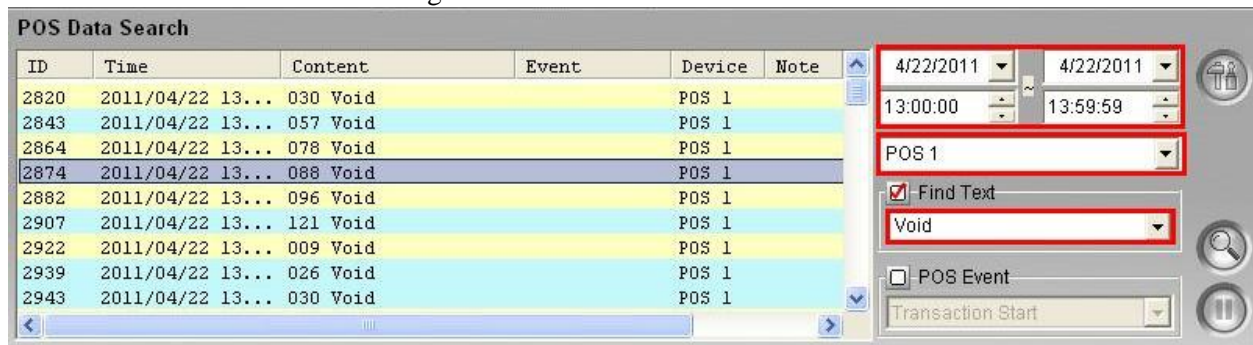
4. In the expanded window, enter the start and end time for the search.
5. Select which POS device(s) to apply the search.

- ✓ *Multiple POS can be selected to perform a search across different devices*

6. To search for a particular item or text, check “**Find text**” then enter the keyword.

- ✓ *The keyword entered is case sensitive*

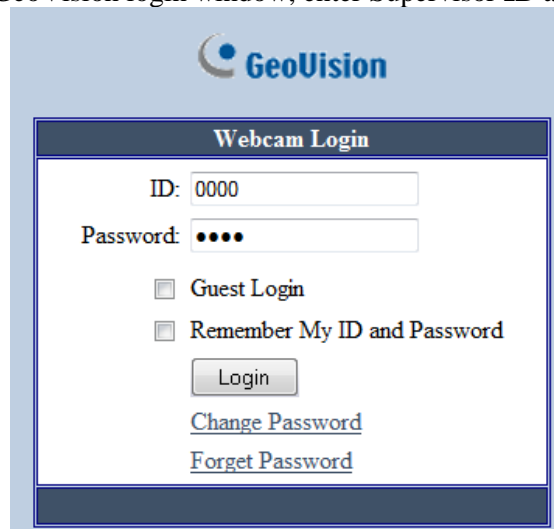
7. Click “**Go**” to start searching.



- ✓ For detail instruction, refer to p.346 of v8.54 User Manual

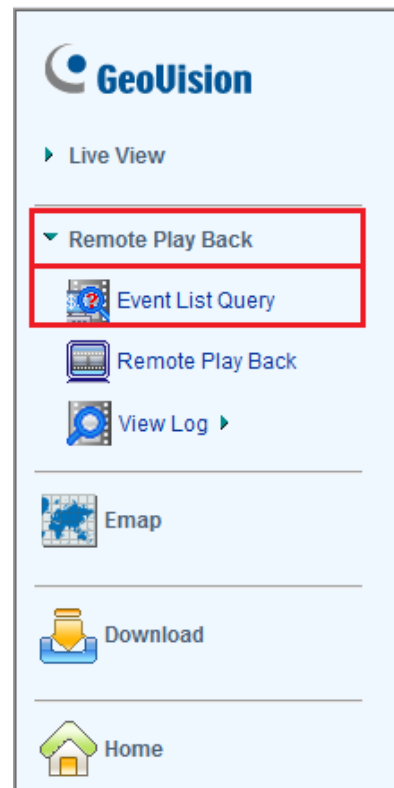
### 4.8.3 Remote Query

- ✓ The following procedure is performed on a remote PC/laptop.
  - ✓ Prior to connection, Webcam Server must be enabled and setup properly on GV-DVR. (refer to Section 4 “Remote Viewing” in GeoVision Technical Handbook Part I)
1. Open Internet Explorer, connect to the DVR’s IP address.
  2. In the GeoVision login window, enter Supervisor **ID** and **password** then click “**Login**”.

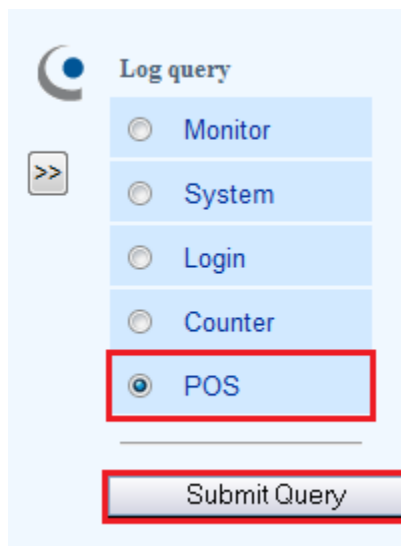


The image shows the 'Webcam Login' window of the GeoVision interface. It features a title bar with the GeoVision logo. Below the title bar, there are two input fields: 'ID' with the value '0000' and 'Password' with four dots. There are two checkboxes: 'Guest Login' and 'Remember My ID and Password'. Below these is a 'Login' button. At the bottom, there are two links: 'Change Password' and 'Forget Password'.

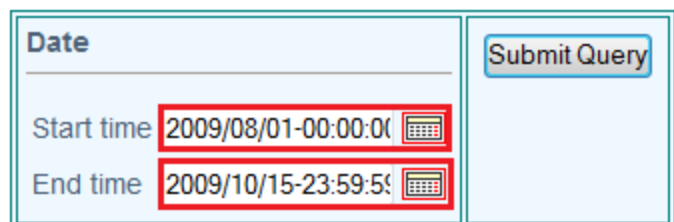
3. In the menu list, select “**Remote Playback**”, then “**Event List Query**”.
4. Select “**POS**” under Log query, then click “**Submit Query**”.



The image shows the main menu of the GeoVision interface. It has a title bar with the GeoVision logo. Below the title bar, there is a 'Live View' button. A red box highlights the 'Remote Play Back' button. Below it are 'Event List Query', 'Remote Play Back', and 'View Log' buttons. Further down are 'Emap', 'Download', and 'Home' buttons.



The image shows the 'Log query' window. It has a title bar with the GeoVision logo. Below the title bar, there is a '>>' button. A list of options is shown: 'Monitor', 'System', 'Login', 'Counter', and 'POS'. The 'POS' option is selected and highlighted with a red box. Below the list is a 'Submit Query' button, also highlighted with a red box.



The image shows the 'Date' selection window. It has a title bar with the word 'Date'. Below the title bar, there are two input fields: 'Start time' with the value '2009/08/01-00:00:00' and 'End time' with the value '2009/10/15-23:59:59'. Both fields have calendar icons to their right. A 'Submit Query' button is located to the right of the input fields.

5. Enter a **Start time** and **End time** for the POS event query.
6. Click “**Submit Query**”.

7. To search for a particular event, select an “**Event Type**”.
8. Select POS device index to designate POS channel.
9. To search for particular transaction content or keywords, select “**Content**” then input keyword.
10. Click “**Submit Query**”.

POS

Event Type

Device  
POS 1  
POS 2  
POS 3  
POS 4  
POS 5  
POS 6  
POS 7  
POS 8  
POS 9  
POS 10  
POS 11  
POS 12  
POS 13  
POS 14  
POS 15  
POS 16

Content

Date  
☐ DST Rollback  
2009/08/01-00:00:00  
2009/10/15-23:59:59

Submit Query

Chart  
Txt  
Export

ID	Event Type	Device	Content	Note	Back	Time	Video
<div> <input type="checkbox"/> Video </div> <div> </div>							

11. The result will be displayed with video associated with each event, if available.

POS

Event Type  
Stop Transaction

Device  
POS 1  
Multi-Select

Content

Date  
☐ DST Rollback  
2009/08/01-00:00:00  
2009/10/15-23:59:59

Submit Query

Chart  
Txt  
Export

1 2 3 4 5 6 Page: 1/6, Total record(s): 175

ID	Event Type	Device	Content	Note	DST Rollback	Time	Video
24	Stop Transaction	POS 1	d103 2005.09.14 17:55 Shop:01			10/9/2009 5:12:09 PM	
49	Stop Transaction	POS 1	d001 2005.09.14 17:54 Shop:01			10/9/2009 5:12:44 PM	
66	Stop Transaction	POS 1	d018 2005.09.14 17:55 Shop:01			10/9/2009 5:13:09 PM	
93	Stop Transaction	POS 1	d045 2005.09.14 17:55 Shop:01			10/9/2009 5:13:47 PM	
118	Stop Transaction	POS 1	d070 2005.09.14 17:55 Shop:01			10/9/2009 5:14:25 PM	
151	Stop Transaction	POS 1	d103 2005.09.14 17:55 Shop:01			10/9/2009 5:15:11 PM	
176	Stop Transaction	POS 1	d001 2005.09.14 17:54 Shop:01			10/9/2009 5:15:46 PM	
193	Stop Transaction	POS 1	d018 2005.09.14 17:55 Shop:01			10/9/2009 5:16:11 PM	
220	Stop Transaction	POS 1	d045 2005.09.14 17:55 Shop:01			10/9/2009 5:16:49 PM	

☐ Video

- ✓ For detail instruction, refer to p.422 of v8.54 User Manual

## 5. Access Control

### 5.1 Introduction

GeoVision Access Control is an add-on solution that can be directly integrated with GV-DVR/NVR and GV-IP devices such as GV-IP Camera, GV-Video Server, and GV-Compact DVR. With the video integration, the card holder access information can also overlay onto GV-DVR/NVR for access monitoring.

Basic ASManager can connect to four access controllers without additional license. The ASManager USB key must be upgraded in order to accommodate more controllers (up to 255 controllers). ASManager software can be installed from **AS-Manager Installation Disk**.

### 5.2 Specs & Requirements

#### 5.2.1 Distance & Wiring

- **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)

#### 5.2.2 Connection Limit

- **Through network connection,** up to 255 GV-AS Controllers can connect to GV-ASManager.
- **Through RS-485 connection,** up to 16 GV-AS100 / GV-AS110 / GV-AS120 Controllers can connect to the same COM port on a computer running GV-ASManager.

#### 5.2.3 Compatible Firmware Versions

Models	Compatible Controller Firmware Version
GV-AS100 / 110 / 120	V1.06
GV-AS400	V1.04
GV-AS210 / 810	V1.0
GV-ASBox / GV-ASNet (Optional devices)	V1.06

## 5.2.4 GV-AS100 Specifications

CPU	8-bit RISC microprocessor	
Number of User Cards	1,000 / 40,000 cards (standalone / networked or RS-485 mode)	
Event Buffer	65,536 events and log data	
Power	100 ~ 240V AC, 50 ~ 60Hz	
Wiegand Interface	1 Wiegand interface, 26 ~ 64 bit format	
	12V DC Power Supply, 200mA	
Communication Protocol	RS-485	
Digital I/O	Input	3 inputs, dry contact, NO / NC
	Output	2 outputs
Operating Temperature	0 ~ 65°C / 32 ~ 149°F	
Operating Humidity	10% ~ 90% RH (non-condensing)	
Dimensions (W X H X D)	96 x 137 x 27 mm / 3.78 x 5.39 x 1.06 in	
Weight	250 g / 0.55 lb	
Certification	IP54, CE, FCC, RoHS	

## 5.2.5 GV-AS110 Specifications

CPU	32-bit RISC microprocessor	
Number of User Cards	1,000 / 40,000 cards (standalone / networked or RS-485 mode)	
Event Buffer	65,536 events and log data	
Power	100 ~ 240V AC, 50 ~ 60Hz	
Wiegand Interface	1 Wiegand interface, 26 ~ 64 bit format	
	12V DC Power Supply, 200mA	
Communication Protocol	RS-485	
Digital I/O	Input	3 inputs, dry contact, NO / NC
	Output	2 outputs
Operating Temperature	-20 ~ 60°C / -4 ~ 140°F	
Operating Humidity	10% ~ 90% RH (non-condensing)	
Dimensions (W X H X D)	95 x 108 x 23 mm / 3.74 x 4.25 x 0.91 in	
Weight	200 g / 0.44 lb	
Certification	IP54, CE, FCC, RoHS	

## 5.2.6 GV-AS120 Specifications

CPU	32-bit RISC microprocessor	
Number of User Cards	1,000 / 40,000 cards (standalone / networked or RS-485 mode)	
Event Buffer	65,536 events and log data	
Power	100 ~ 240V AC, 50 ~ 60Hz	
Wiegand Interface	1 Wiegand interface, 26 ~ 64 bit format	
	12V DC Power Supply, 200mA	
Communication Protocol	RS-485	
Digital I/O	Input	2 inputs, dry contact, NO / NC
	Output	1 output
Operating Temperature	-20 ~ 60°C / -4 ~ 140°F	
Operating Humidity	10% ~ 90% RH (non-condensing)	
Dimensions (W X H X D)	65.8 x 115.6 x 20.5 mm / 2.6 x 4.6 x 0.8 in	
Weight	138 g / 0.3 lb	
Certification	IP66, CE, FCC, RoHS	

## 5.2.7 GV-AS400 Specifications

CPU	8-bit RISC microprocessor	
Number of User Cards	40,000 cards	
Event Buffer	65,536 events and log data	
Power	100~250V AC, 50~60Hz	
RS-485 Interface	1 RS-485 interface only for GV-Readers and GV-GF Fingerprint Readers (max. 8 readers)	
Wiegand Interface	8 Wiegand interfaces, 26 ~ 64 bit format	
	12V DC power supply, 200mA	
Communication	TCP / IP	
Input	16 inputs, dry contact, NO / NC	
Output	8 relay outputs (30VDC, 3A; 110V AC ~ 250V AC, 3A) 8 photo relay outputs (350V DC / AC, 130mA)	
Operating Temperature	0 ~ 65°C / 32 ~ 149°F	
Operating Humidity	10% ~ 90% RH (non-condensing)	
Dimensions (W X H X D)	210 x 170 x 30 mm / 8.27 x 6.69 x 1.18 in (case included)	
Weight	750 g / 1.65 lb (case included)	
Certification	CE, FCC, RoHS	

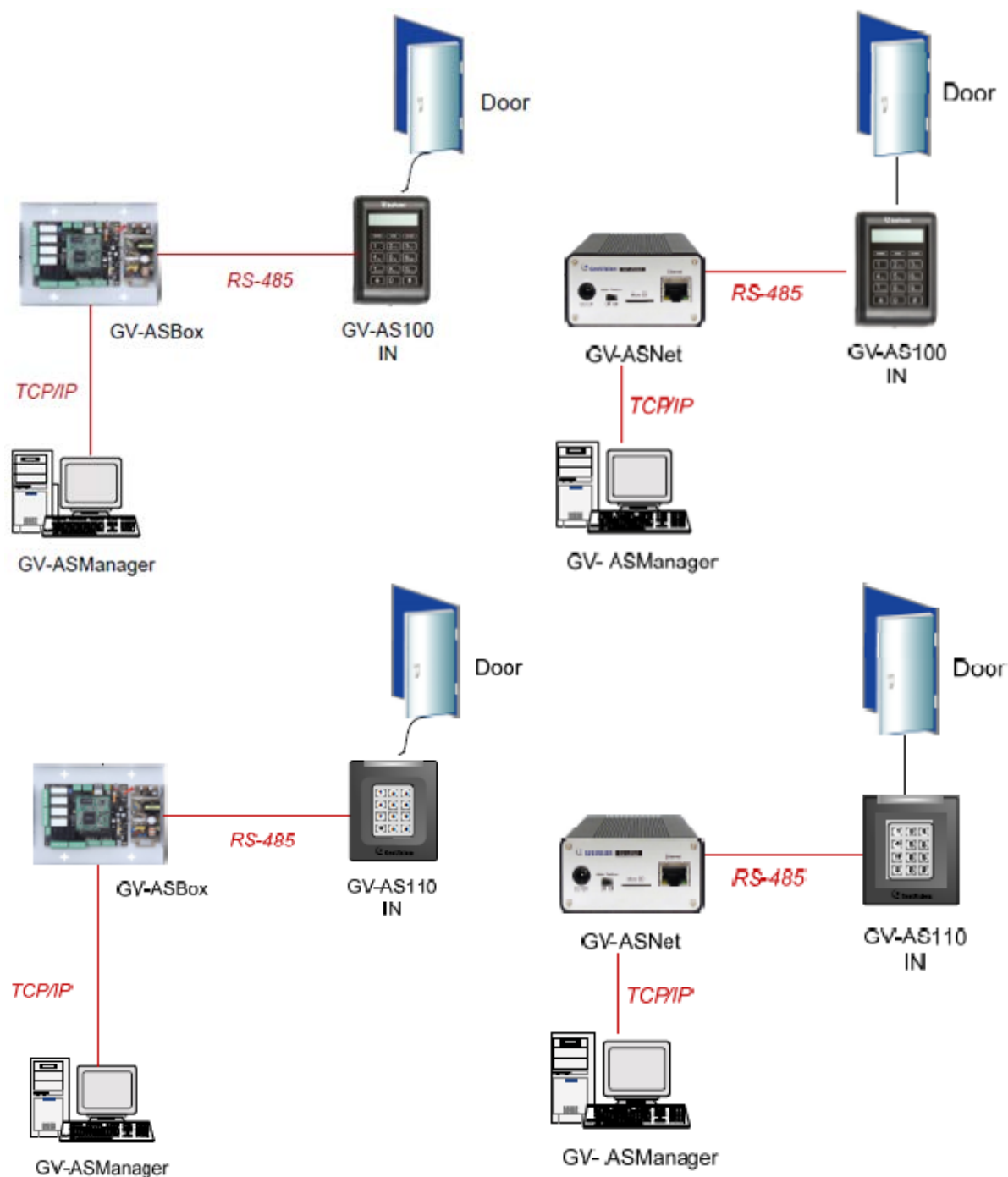
## 5.3 Optional Devices

<b>GV-ASKeypad</b>	GV-ASKeypad with LCD display is a hot-swapping device, giving you convenience to configure GV-AS400.
<b>GV-Battery</b>	The battery is an uninterruptible power supply (UPS) device, designed to supply GV-AS Controllers' power during power failure. For GV-AS100 / 110 / 120, GV-ASBox or GV-ASNet is required to use GV-Battery.
<b>GV-Reader</b>	25kHz and 13.56MHz GV-Readers are available with both Wiegand and RS-485 outputs that can be connected to any standard access control panel.
<b>GV-RK1352</b>	GV-RK1352 is a card reader with keypad that uses a 13.56 MHz frequency. The reader has both Wiegand and RS-485 outputs that can be connected to any standard access control panel.
<b>GV-R1352</b>	GV-R1352 is a card reader that uses a 13.56 MHz frequency. The reader has both Wiegand and RS-485 outputs that can be connected to any standard access control panel.
<b>GV-GF Fingerprint Reader</b>	The reader supports three operation modes: Fingerprint Only, Fingerprint + Card and Card Only. In Fingerprint Only mode, the fingerprints are enrolled through GV-ASManager. In Fingerprint + Card mode, the fingerprint templates are stored on the user card. In Card Only mode, the users only need to swipe the card to be granted access. Readers with optical and capacitance sensors are available.
<b>GV-CR420</b>	GV-CR420 is a card reader with a built-in 4MP wide angle IP camera. The card reader recognizes identification cards and transmits live view through network connection.
<b>GV-ASBox</b>	<b>Only works with GV-AS100 / 110 / 120.</b> The device can add Network function, 1 Wiegand interface, 8 additional inputs and outputs to GV-AS100, GV-AS110 and GV-AS120.
<b>GV-ASNet</b>	<b>Only works with GV-AS100 / 110 / 120.</b> This device can add Network function to GV-AS100, GV-AS110 and GV-AS120.
<b>GV-Hub</b>	<b>Only works with GV-AS100 / 110 / 120.</b> GV-Hub can convert the standard RS-232 signal of up to 4 controllers to RS-485, allowing the controllers to connect to computers.

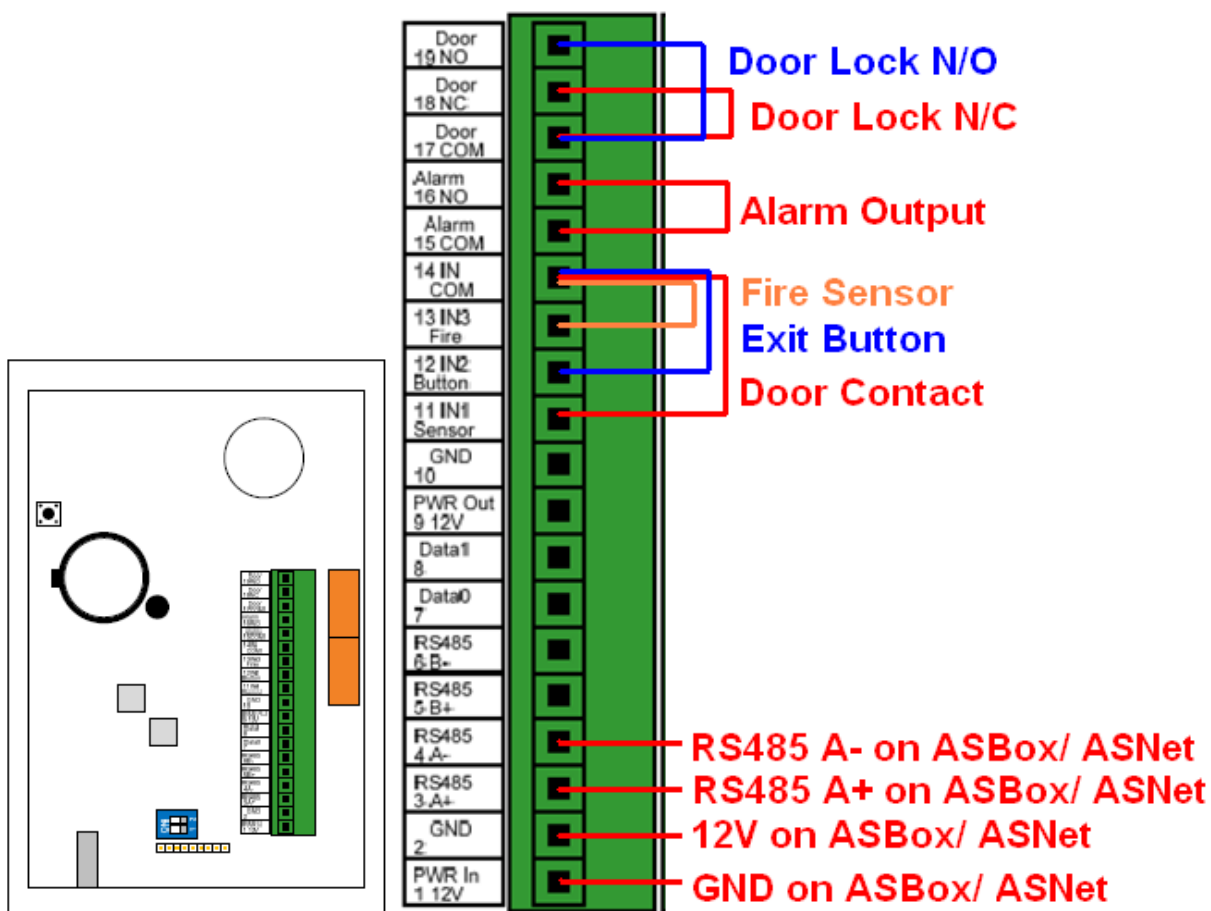
<b>GV-COM</b>	<b>Only works with GV-AS100 / 110 / 120.</b> GV-COM can convert the standard RS-232 signal of one controller to RS-485, allowing the controller to connect to a computer.
<b>GV-Net / IO Card</b>	<b>Only works with GV-AS100 / 110 / 120.</b> GV-Net / IO Card can convert the standard RS-232 signal of one controller to RS-485, allowing the controller to connect to a computer.
<b>GV-IO Box</b>	<b>Only works with GV-AS400.</b> Includes the options of 4, 8 and 16 ports. Can expand GV-AS400's capability to up to 64 inputs and 64 outputs.
<b>Cabinet</b>	<p><b>Only available for GV-AS400 / 810.</b> With the cabinet, GV-AS Controllers can be mounted directly to a wall or recessed into the wall. Two types of cabinet dimensions are available (W x H x D):</p> <ul style="list-style-type: none"> <li>• 383.5 x 443.5 x 112.2 mm / 15.1 x 17.5 x 4.4 in</li> <li>• 300 x 420 x 86 mm / 11.8 x 16.5 x 3.4 in</li> </ul>
<b>Push Button Switch</b>	The push button switch can be integrated with access control system, allowing door exit by momentarily activating or deactivating the electric locking device. Both American standard and European standard push buttons are available.
<b>GV-IB25 / 65 / 85 Infrared Button</b>	The GV-IB25 / 65 / 85 Infrared Button detects infrared movement within 3 to 12 cm and allows you to open the door with a wave of hand.
<b>Electric Lock</b>	Three types of electric locks are available: electromagnetic lock, electric bolt and electric strike.
<b>GV-AS ID Card &amp; GV-AS ID Tag</b>	GV-AS ID Cards and GV-AS ID Tags are ideal for business and residential environment, where access control is important for security reasons. 125 kHz and 13.56 MHz cards and tags are available.

## 5.4 AS100/AS110/AS120

### 5.4.1 Connection Diagram



### 5.4.2 AS100 Connection



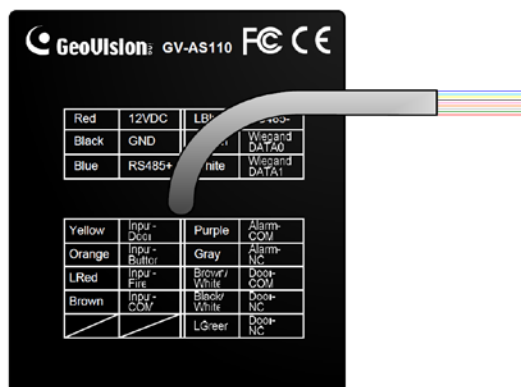
Pin	Function	Pin	Function	Pin	Function
1	12V Power	9	12V Power Supply	17	Door COM
2	GND	10	GND	18	Door NC
3	RS-485 A+ for ASBox / ASNet or PC connection	11	Sensor IN1	19	Door NO
4	RS-485 A-for ASBox / ASNet or PC connection	12	Button IN2		
5	RS-485 B+ for GV-Reader connection	13	Fire IN3		
6	RS-485 B- for GV-Reader connection	14	IN COM		
7	Wiegand Data 0	15	Alarm COM		
8	Wiegand Data 1	16	Alarm NO		

✓ For detail instruction, refer to p.6 of ASController User Manual

### 5.4.3 AS110 Connection

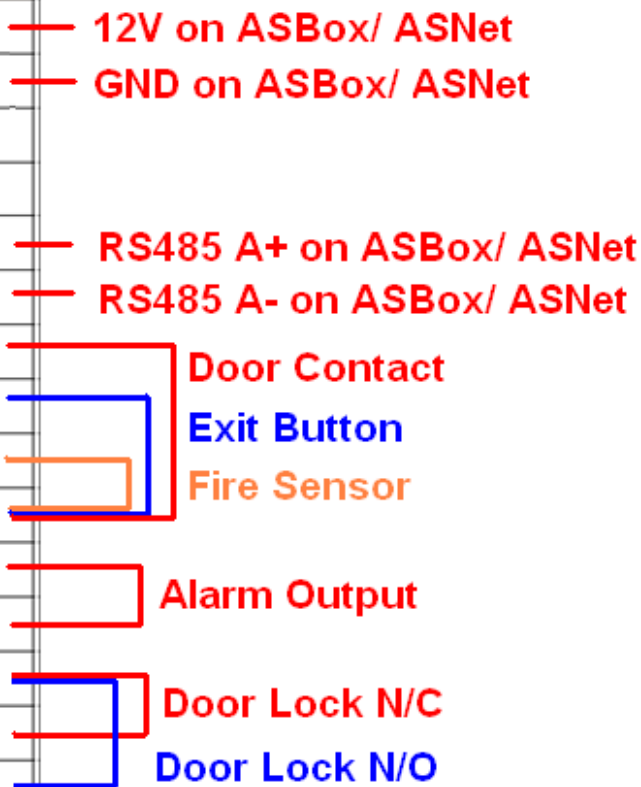


Front View



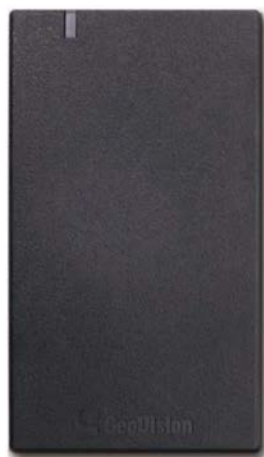
Rear View

Wire color	Definition
Red	12V
Black	GND
Green	Wiegand Data 0
White	Wiegand Date 1
Blue	RS485+
Light Blue	RS485-
Yellow	Door Sensor IN1
Orange	Button IN2
Pink	Fire Sensor IN3
Brown	IN COM (GND)
Purple	Alarm COM
Gray	Alarm NO
Brown White	Door COM
Black White	Door NC
Light Green	Door NO

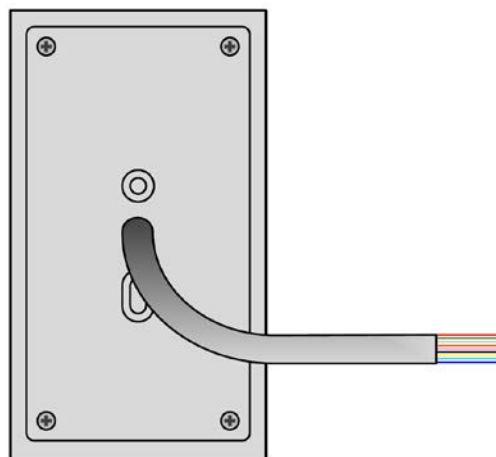


✓ For detail instruction, refer to p.27 of ASController User Manual

#### 5.4.4 AS120 Connection



Front View



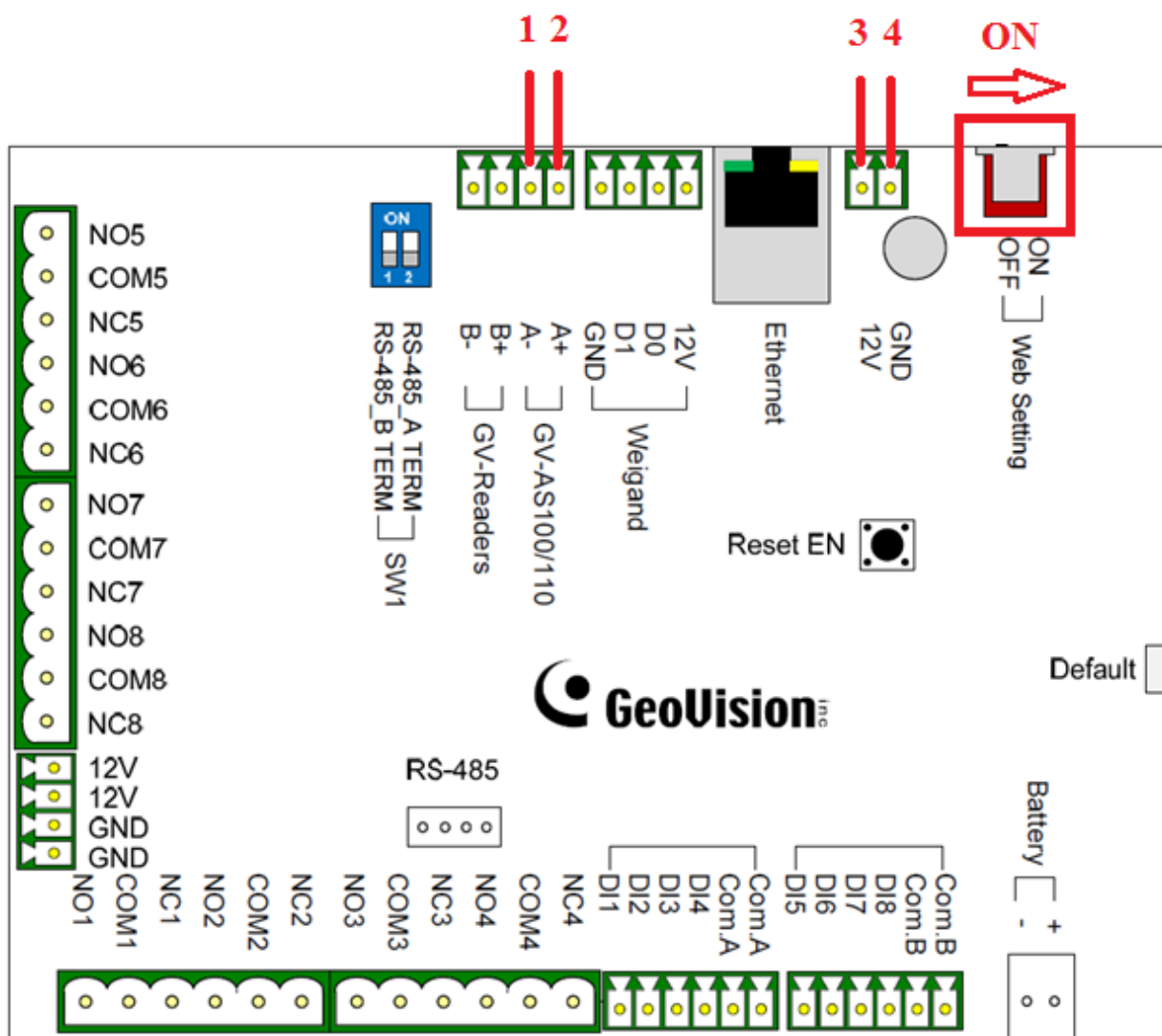
Rear View

Wire color	Definition	
Red	12V	12V on ASBox/ASNet
Black	GND	GND on ASBox/ASNet
Green	Wiegand Data 0	
White	Wiegand Date 1	
Blue	RS485+	RS485 A+ on ASBox/ASNet
Light Blue	RS485-	RS485 A- on ASBox/ASNet
Brown	IN COM (GND)	Door Contact Exit Button
Yellow	Door Sensor IN1	
LRed	Button IN2	
Purple	Door COM	Door Lock N/C Door Lock N/C
Orange	Door NC	
Gray	Door NO	

✓ For detail instruction, refer to p.45 of ASController User Manual

### 5.4.5 ASBox Connection

ASBox	1 (A-)	2 (A+)	3 (12V)	4 (GND)
AS100	Pin4	Pin3	Pin2	Pin1
AS110	Light blue	Blue	Red	Black
AS120	Light blue	Blue	Red	Black



1. Turn dipswitch for Web Setting to **ON** to enable web configuration.
- ✓ For detail instruction, refer to p.146 of ASController User Manual

### 5.4.6 Create Master Card

#### AS100

##### To create a Master Card:

1. Power on the unit. The LCD displays **Enter Master Card**.
2. Present a card to be the Master Card. The LCD displays **Master PIN Code: 1234**.
3. Keep the default PIN code as 1234, and press **#**. The LCD displays **Succeed**.

Alternatively, you can press any four digits on the keypad to change the default value. The double confirmation of the new PIN code is required. After this, the LCD should display the message of success.

After the Master Card is created, GV-AS100 will run a self test and display the message "Master Memory Test". After it is finished, you can see the message of GV-AS100 online or offline followed by a date and time. Then you can start programming GV-AS100.

#### AS110/AS120

##### To create the Enroll Card and the Delete Card:

1. Power on the unit. The LED flashes blue.
2. Present a card to be the Enroll Card.
3. Present a card to be the Delete Card.
4. The GV-AS110 will automatically load default, and the LED will flash blue and yellow. After 1 to 2 minutes, the LED should be a constant blue light to indicate READY.

### 5.4.7 Web Configuration

- ✓ For standalone AS100/AS110 configuration, refer to page 12 of ASController User Manual
- 2. Open Internet Explorer, type in default IP address for ASBox/ASNet <http://192.168.0.100>.
- 3. Enter default User Name: **admin** Password: **admin** then click “OK”.
- 4. Change the **IP address**, **Subnet Mask**, **Default Gateway**, and **Domain Name Server** as necessary to match actual network properties.

GeoVision Inc.

**Basic Setting**

- Network Setting
- Other Setting
- Firmware Update
- Account Setting

**Advance Setting**

- Function Setting
- Parameter Setting
- Time Setting
- Input Setting
- Output Setting
- Wiegand Setting

**Network Configuration**

**Machine Name**

Machine Name AS

**DHCP Client:**

☐ Enable

☒ **Disable**

IP Address:	192	168	0	21
Subnet Mask:	255	255	252	0
Default Gateway:	192	168	0	1
Domain Name Server:	192	168	0	1

**Domain Name Service:**

- 5. Click “Submit”.
- 6. Select “**Function Setting**” under Advance Setting.
- 7. Enter “1” in the ID box

- ✓ For multiple controllers, change ID number accordingly
- ✓ ID assigned to each controller has to match under ASManager, see section 5.8.6

GeoVision Inc.

**Basic Setting**

- Network Setting
- Other Setting
- Firmware Update
- Account Setting

**Advance Setting**

- **Function Setting**
- Parameter Setting
- Status Monitor
- Card Information

**AS100/AS110 Function Configuration**

**ID**

ID

**ASBox Wiegand**

ASBox Wiegand Door/Gate B

**Door/Gate A**

Function Door Entry Control

Authentication Mode Authentication Schedule Mode

**Door/Gate B**

Function Door Entry Control

- 8. Click “Submit”.

- ✓ For customize door functions and authentication modes, refer to p.165 of ASController User Manual
9. Select “**In/Out Function**” under Advance Setting.
  10. Configure **Input Function** and **Output Function** accordingly if applicable.
- ✓ For Input/Output Function definition, refer to p.149 of ASController User Manual

ASBOX IO Configuration			
<b>Input Function</b>			
ASBOX Input 1	NO	Door A	Tamper Zone
ASBOX Input 2	NO	Door A	Exit Button
ASBOX Input 3	NO	Door A	Door Contact
ASBOX Input 4	NO	Normal Input	Disable Latch
ASBOX Input 5	NO	Normal Input	Disable Latch
ASBOX Input 6	NO	Normal Input	Disable Latch
ASBOX Input 7	NO	Normal Input	Disable Latch
ASBOX Input 8	NO	Normal Input	Disable Latch
<b>Output Function</b>			
ASBOX Output 1	No Function		

11. Select “**Status Monitor**” under Advance Setting.
12. Verify input and output statuses of door contact, button, lock, as well as any connected I/O device to make sure NO/NC settings are correct.

Control Mode		Memory Status
Door	Local Unlock Mode	Used / Capacity 36 / 65535
<b>Door Contact A</b>		<b>Events</b>
AS100 Input 1	OFF	Alarm Tamper
<b>Exit Button A</b>		Forced Open FireAlarm
AS100 Input 2	OFF	Duress Held Open
<b>Fire Zone A</b>		<b>Electric Lock A</b>
ASBOX Input 3	OFF	ASBOX Output 1 ON
AS100 Input 3	OFF	<b>General Alarm A</b>
<b>Tamper Zone A</b>		ASBOX Output 3 OFF
ASBOX Input 4	OFF	<b>Lighting</b>
AS100 Input 4	OFF	ASBOX Output 5
<b>Normal Input</b>		<b>Normal Output</b>
ASBOX Input 1	OFF	ASBOX Output 6
ASBOX Input 2	OFF	<b>Normal Output</b>
ASBOX Input 5	OFF	ASBOX Output 7
ASBOX Input 6	OFF	<b>Normal Output</b>
ASBOX Input 7	OFF	ASBOX Output 8
ASBOX Input 8	OFF	

- ✓ For detail instruction, refer to p.171 of ASController User Manual

### 5.4.8 Firmware Upgrade

- ✓ Download new ASController firmware ([http://www.geovision.com.tw/english/5\\_3\\_as.asp](http://www.geovision.com.tw/english/5_3_as.asp))
- 1. Select “**Firmware Update**” under Basic Setting.
- 2. Click “**Browse**” then locate the new ASBox or AS100/AS110/AS120 firmware.
- 3. Click “**Upload**”, and wait about 60 seconds for the firmware upgrade to finish.

The screenshot shows the GeoVision web interface for the Firmware Update section. On the left is a navigation menu with categories: Basic Setting (containing Network Setting, Other Setting, and Firmware Update which is highlighted with a red box), Advance Setting (containing Function Setting, Parameter Setting, Time Setting, Input Setting, Output Setting, and Wiegand Setting), and Extend Device (containing Extend Reader and Extend IO). The main content area is titled 'Firmware Update' and contains a large red box with the following text: 'Firmware Update. After pressing the Update button, please wait while the update request is being processed. After update is completed, the device will reboot automatically. You can re-login afterwards.' Below this is another red box that says 'Please insert GV-ASKeypad before update the firmware'. Further down, there is a 'Select firmware' text label, an empty input field, a 'Browse...' button, and a green 'Upload' button. At the bottom, there is a section for 'Update State' with an empty input field, and 'Update Process' with a progress bar showing 0%.

- 4. After firmware update, click “**OK**” to reboot AS100/110/120 in the dialogue box.

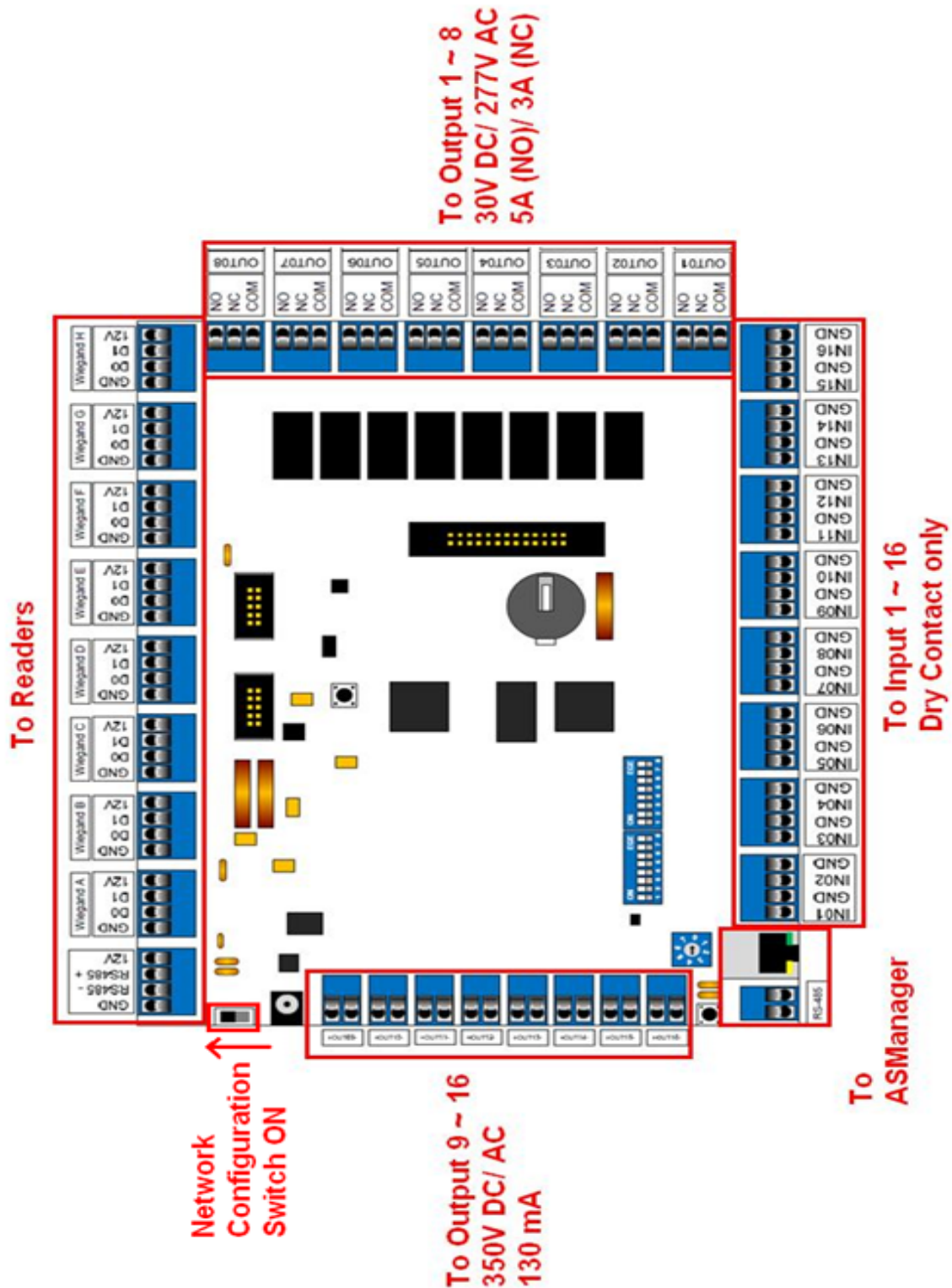
- ✓ For detail instruction, refer to p.120 of ASController User Manual

### 5.4.9 Restore Default Settings

1. Press the code \***737** (\*RES).
2. Present the Master Card and enter PIN Code.  
The LCD displays **Default Setting 1. Yes? 2. No?**.
3. Press **1**. The LCD displays **Default Setting Memory Test...**
4. When the unit returns to factory defaults, the LCD displays **Enter Master Card**.

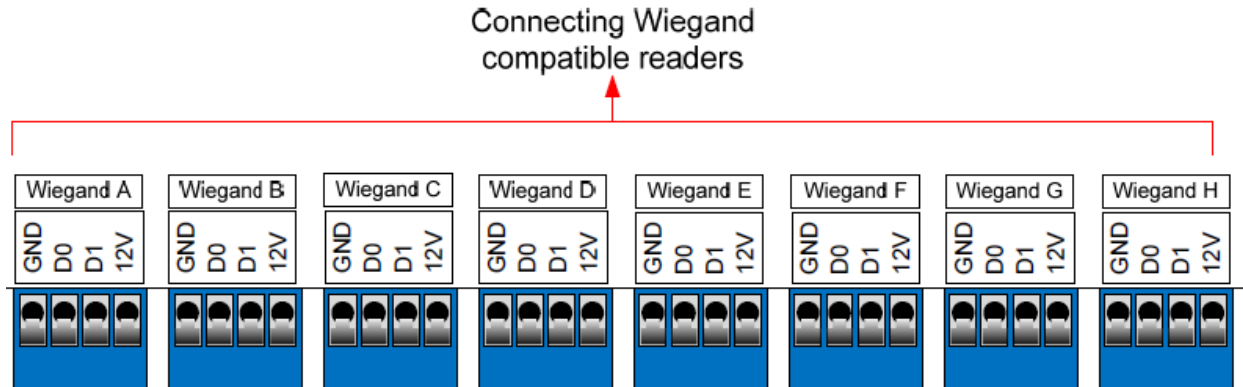
## 5.5 AS400

### 5.5.1 Layout



### 5.5.2 Wiegand Reader Connection

- ✓ AS400 supports up to eight Wiegand 26 ~ 64bit readers
- ✓ Wiegand connection has a distance limitation of 30m (~ 100ft)



Pin	Function
GND	GND of the Power Supply
D0	Wiegand Data 0
D1	Wiegand Data 1
12V	12V Power Supply

1. Refer to reader's installation guide for wiring information.

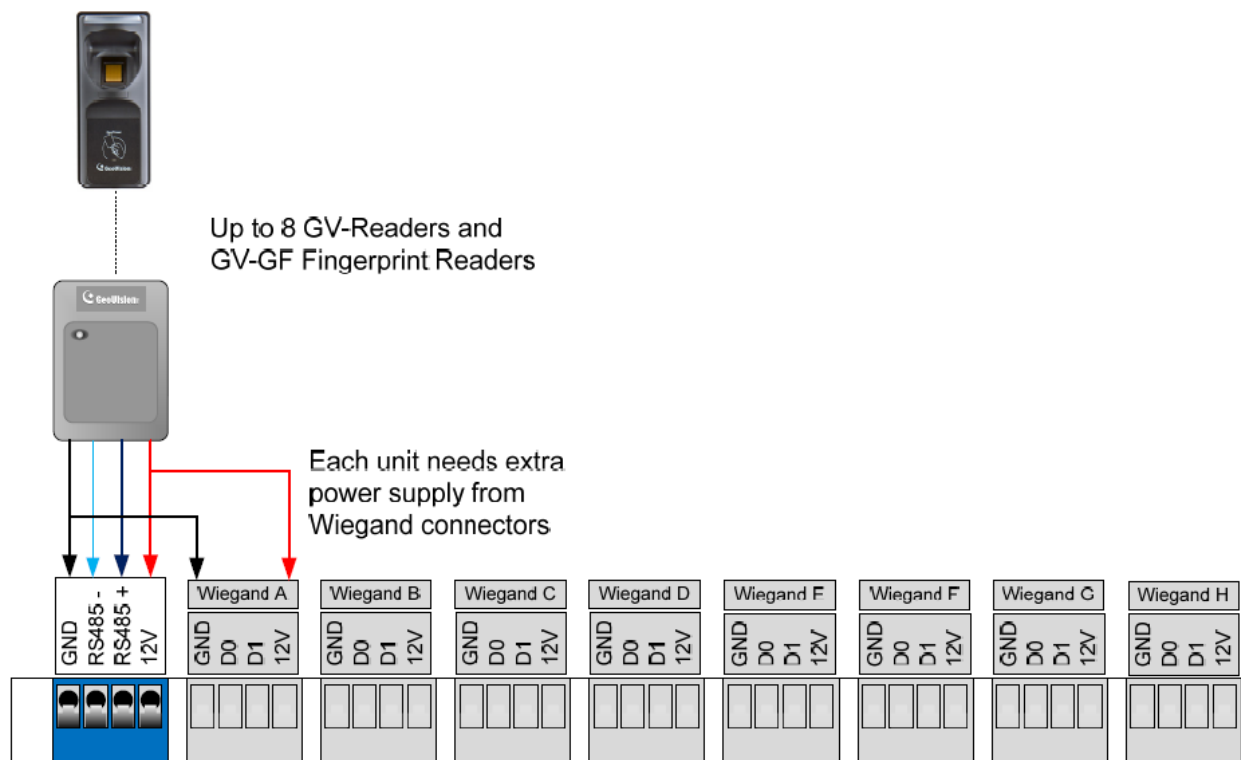
#### GV-Reader/ GV-Fingerprint Reader

Wire	Red	Black	White	Green
Function	12V	GND	Data-1	Data-0

2. Connect reader(s) to the Wiegand ports in order from A to H.
- ✓ For detail instruction, refer to p.73 of ASController User Manual

### 5.5.3 RS485 Reader Connection

- ✓ GV-Fingerprint reader has to be connected via RS485 in order to sync with ASManager



1. Refer to reader's installation guide for wiring information.

#### GV-Reader/ GV-Fingerprint Reader

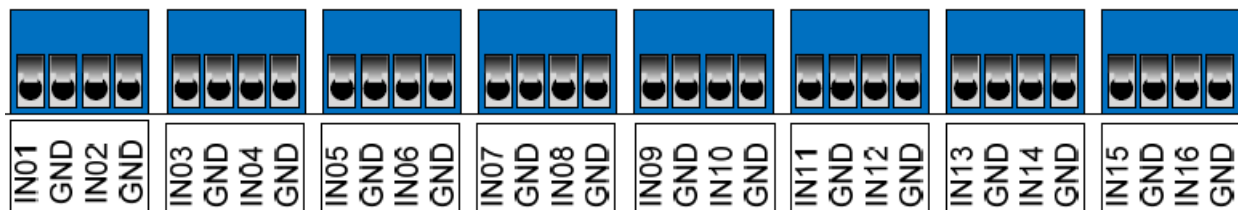
Electric Wires on GV-Reader	RS-485 on GV-AS400
Red	12V
Blue	RS-485 +
Light Blue	RS-485 -
Black	GND

2. Connect reader(s) to the RS485 ports.
3. For multiple RS485 reader connections, combine all RS485+ and RS485- wires from each reader, but **connect 12V and GND separately into each Wiegand port as shown above.**

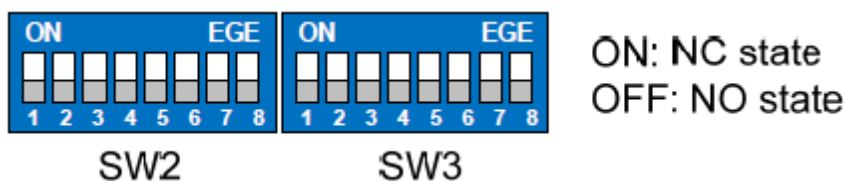
- ✓ For detail instruction, refer to p.74 of ASController User Manual

### 5.5.4 Input Connection

- ✓ AS400 supports dry contact inputs only

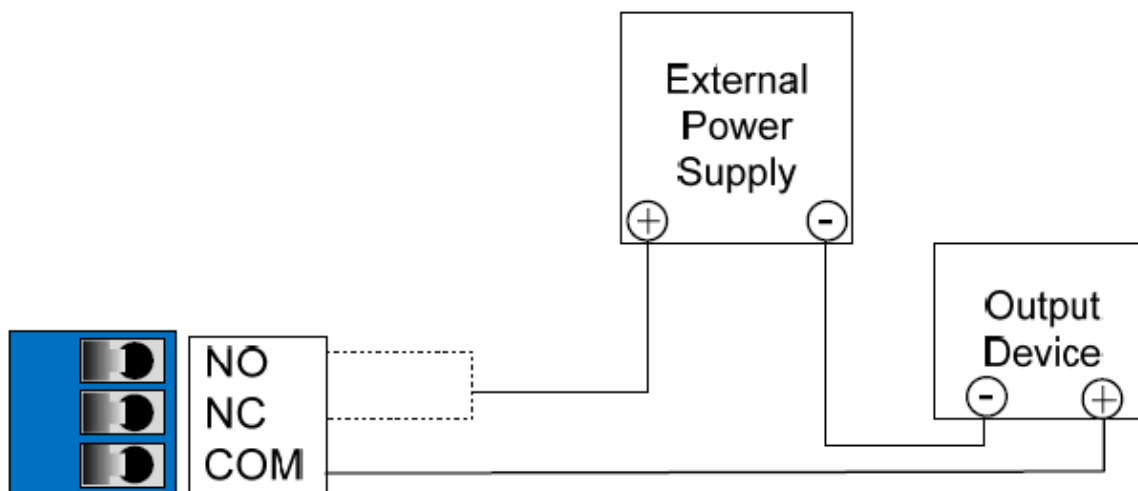


1. Connect each input accordingly, such as door exit button, motion sensor, door contacts, etc.
2. Label each input for verification.
3. Verify LED indicator on board for each input to verify activation.
4. Adjust the NO/NC switch accordingly for each input.



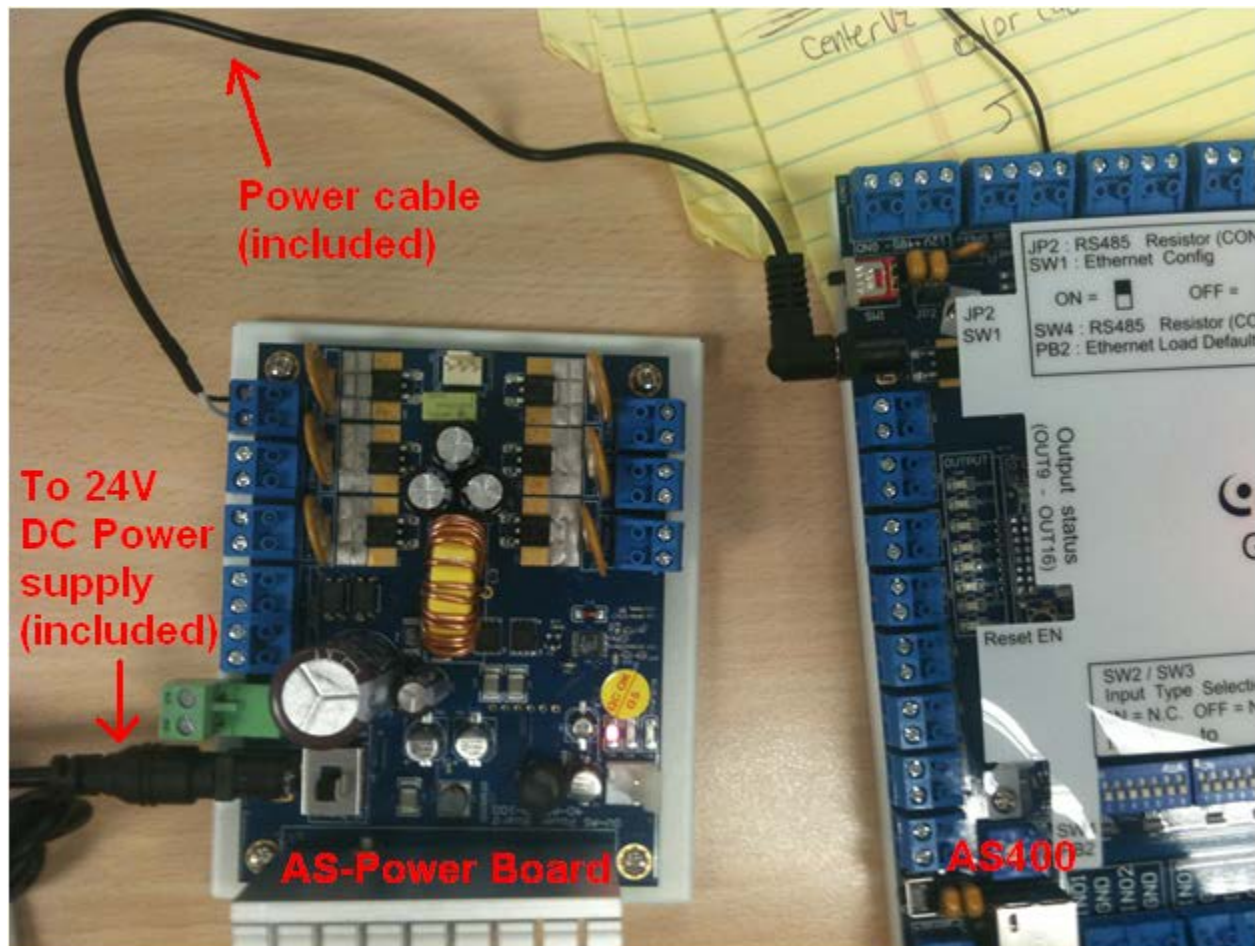
- ✓ For detail instruction, refer to p.75 of ASController User Manual

### 5.5.5 Output Connection

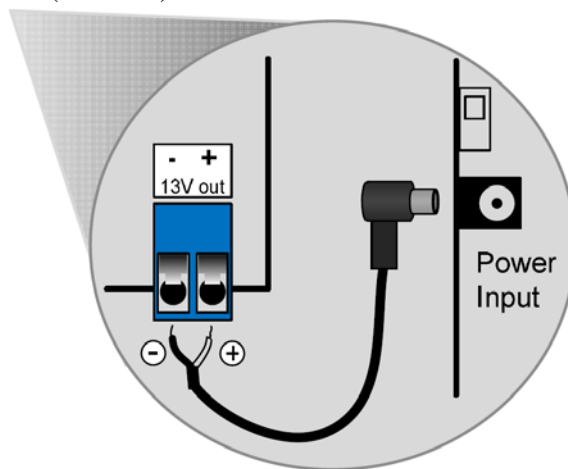


1. Connect output devices that require external power supply to Output 1 ~ 8.
  2. Connect output devices that can be triggered by AS400's internal 12V DC to output 9 ~ 16.
- ✓ Refer to section 5.5.1 for output maximum current and voltage restrictions
  - ✓ For detail instruction, refer to p.76 of ASController Installation Guide

### 5.5.6 Power Connection



1. Connect 12V output on AS-Power Board to AS400 power input with 2 wire power cable (+/-) (included).
2. Connect AS-Power Board to any 110V AC wall outlet via 24V DC Power Supply block (included).



✓ For detail instruction, refer to p.79 of ASController Installation Guide

### 5.5.7 Web Configuration

1. Open Internet Explorer, type in default IP address for AS400 <http://192.168.0.100>.
2. Enter default User Name: **admin** Password: **admin** then click “OK”.
3. Change the **IP address**, **Subnet Mask**, **Default Gateway**, and **Domain Name Server** as necessary to match actual network properties.

**GeoVision**

**Basic Setting**

- Network Setting
- Other Setting
- Firmware Update
- Account Setting

**Advance Setting**

- Function Setting
- Parameter Setting
- Time Setting
- Input Setting
- Output Setting
- Wiegand Setting

**Network Configuration**

**Machine Name**

Machine Name AS

**DHCP Client:**

☐ Enable

☒ **Disable**

IP Address:	192	168	0	21
Subnet Mask:	255	255	252	0
Default Gateway:	192	168	0	1
Domain Name Server:	192	168	0	1

**Domain Name Service:**

4. Click “Submit”.
5. Select “**Function Setting**” under Advance Setting.

**GeoVision**

**Basic Setting**

- Network Setting
- Other Setting
- Firmware Update
- Account Setting

**Advance Setting**

- **Function Setting**
- Parameter Setting
- Time Setting
- Input Setting

**AS400 Function Configuration**

**ID**

ID 1

**Door/Gate A**

Function Door Control

Authentication Mode Local Unlock Mode

**Door/Gate B**

Function Parking Control

Authentication Mode Local Lock Mode

**Door/Gate C**

6. Enter “1” in the ID box
  - ✓ For multiple controllers, change ID number accordingly
  - ✓ ID assigned to each controller has to match under ASManager, see section 5.8.6
7. Click “Submit”.

8. Select “**Input Setting**” under Advance Setting.

AS400 Input Configuration		
Input Function		
Input 01	Normal Input	Latch Disable
Input 02	Door A	Tamper Zone
Input 03	Gate B	Exit Button
Input 04	Relay C	Tamper Zone
Input 05	Door D	Door Contact
Input 06	Normal Input	Latch Disable
Input 07	Normal Input	Latch Disable
Input 08	Normal Input	Latch Disable
Input 09	Normal Input	Latch Disable
Input 10	Normal Input	Latch Disable
Input 11	Normal Input	Latch Disable

9. Configure each **Input Type/Function** and designate its corresponding door or relay output accordingly.
10. Click “**Submit**”.

✓ Refer to section 5.5.4 for input connection

11. Select “**Output Setting**” under Advance Setting.

AS400 Output Configuration		
Output Function		
01	Door A	Electric Lock
02	Pulse	Relay C
03	Gate B	Electric Lock
04	Gate B	Event Alarm
05	Relay C	Electric Lock
06	Relay C	Event Alarm
07	Door D	Electric Lock
08	Door D	Event Alarm
09	Door A	Beeper

12. Configure each **Output Type/Function** and designate its corresponding door or relay output accordingly.
13. Click “**Submit**”.

✓ Refer to section 5.5.5 for output connection

14. Select “**Wiegand Setting**” under Advance Setting.

Wiegand Function	
Wiegand A	Door/Gate A Entry
Wiegand B	Door/Gate A Exit
Wiegand C	Door/Gate B Entry
Wiegand D	Door/Gate B Exit
Wiegand E	Door/Gate C Entry
Wiegand F	Door/Gate C Exit
Wiegand G	Door/Gate D Entry
Wiegand H	Door/Gate D Exit

15. Map the Wiegand inputs with their corresponding doors and directions.  
 16. Click “**Submit**”.  
 17. When card or fingerprint readers are connected via RS485, select “**Extend Reader**” under Extend Device.

GV-Reader Function			
	Reader	Function	Setting Status
<input type="checkbox"/>	GV-Reader ID 0	No Function	
<input type="checkbox"/>	GV-Reader ID 1	No Function	
<input type="checkbox"/>	GV-Reader ID 2	No Function	
<input type="checkbox"/>	GV-Reader ID 3	No Function	
<input type="checkbox"/>	GV-Reader ID 4	No Function	
<input type="checkbox"/>	GV-Reader ID 5	No Function	
<input type="checkbox"/>	GV-Reader ID 6	No Function	
<input type="checkbox"/>	GV-Reader ID 7	No Function	

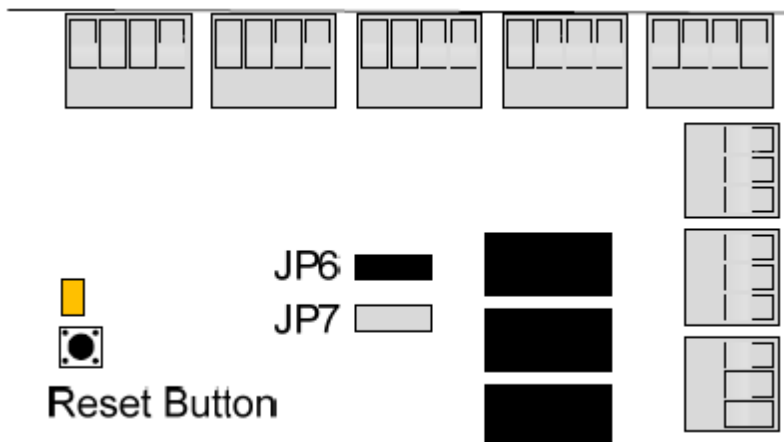
GeoFinger Function			
	Serial Number	Function	Setting Status
<input checked="" type="checkbox"/>	2480000002	Door/Gate A Entry	
<input type="checkbox"/>		No Function	
<input type="checkbox"/>		No Function	
<input type="checkbox"/>		No Function	

18. Enable and define each GV-Reader with its respective ID number.  
 19. Enable and define each fingerprint reader by typing in the **Serial Number** (XID) of each reader.  
 20. Click “**Submit**” to detect the readers, a green mark should appear next to each added reader.

✓ For detail instruction, refer to p.119 of ASController User Manual

### 5.5.8 Firmware Upgrade

- ✓ Download new ASController firmware ([http://www.geovision.com.tw/english/5\\_3\\_as.asp](http://www.geovision.com.tw/english/5_3_as.asp))
- 1. Ensure a Jumper is connected on JP7 as shown below. In case a Jumper is not available, it is necessary to plug in AS-Keypad in order to perform firmware upgrade.



2. On AS400 web interface, select “**Firmware Update**” under Basic Setting.

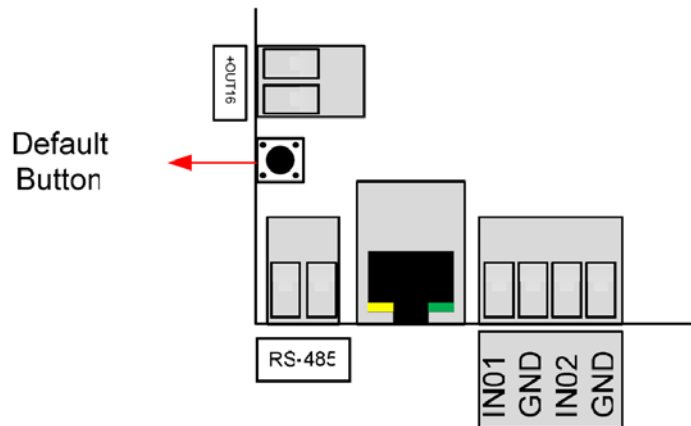


- 3. Click “**Browse**” and locate the new firmware from desktop.
  - 4. Click “**Upload**”, and wait about 60 seconds for the firmware upgrade to finish.
  - 5. Click “**OK**” to reboot AS400 after the update.
- ✓ For detail instruction, refer to p.120 of ASController User Manual

### 5.5.9 Restore Default Settings

#### To restore Basic Settings to factory defaults:

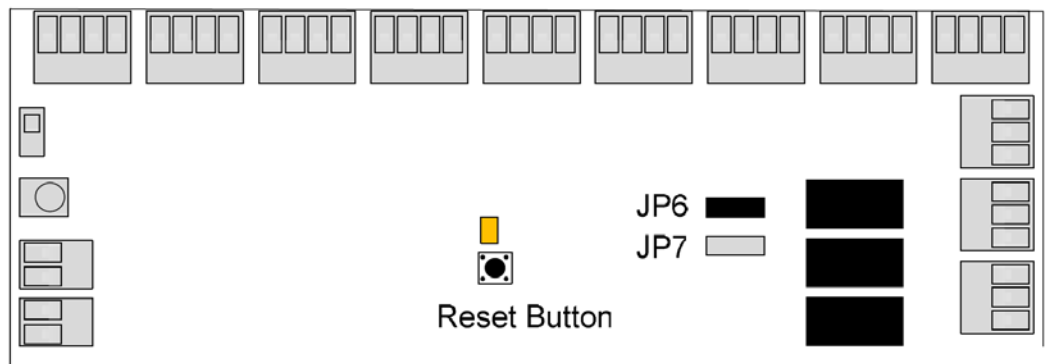
Press the **Default** button, between the output 16 and RS-485 connectors, for 3 seconds. After this it may take up to 3 minutes to restore Basic Settings of GV-AS400 to default factory values.



#### To restore All Settings to factory defaults:

1. Remove the jumper cap from **JP6** to **JP7**.
2. Press the **Reset** button in the upper center of GV-AS400 circuit board. All input LEDs should light on.
3. Remove the jumper cap from **JP7** back to **JP6**.

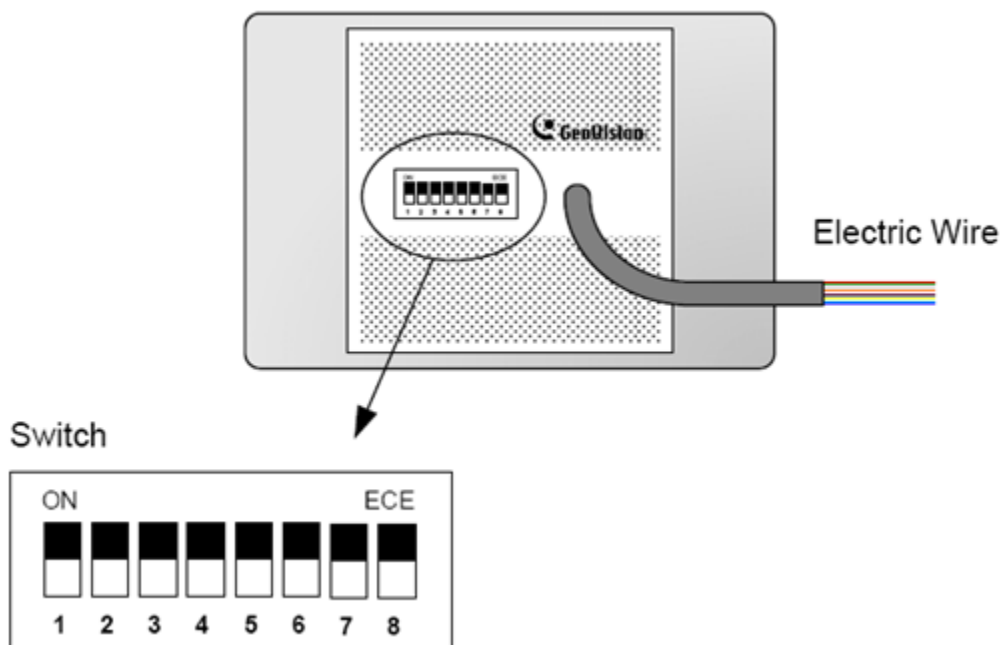
After above steps, it may take up to 3 minutes to restore all settings to factory defaults. If GV-ASKeypad is connected, the message "Memory Test on Keypad" will appear. The default loading is in progress.



✓ For detail instruction, refer to p.84 of ASController User Manual

## 5.6 GV-Reader

### 5.6.1 Dipswitch Settings

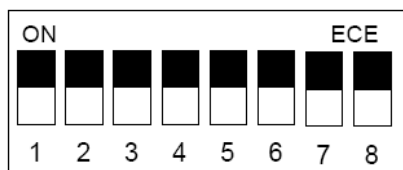


✓ Default status for all dipswitches is ON.

Dipswitch	Status	Description								
1 (Beeper)	ON	When a card is swiped on the reader, the beeper will sound.								
	OFF	Beeper is triggered by an external device that connects to yellow wire.								
2 (Green LED)	ON	When the reader grants access to a card, the LED will turn green.								
	OFF	Green LED is triggered by an external device that connects to orange wire.								
3 (Red LED)	ON	LED will turn red when no card is swiped or when access is denied.								
	OFF	Red LED is triggered by an external device that connects to pink wire.								
4 (Master/Slave)	ON	Reader connects to controller via Wiegand								
	OFF	Reader connects to controller via RS485								
5, 6, 7 (ID)		ID	0	1	2	3	4	5	6	7
		SW5	OFF	OFF	OFF	OFF	ON	ON	ON	ON
		SW6	OFF	OFF	ON	ON	OFF	OFF	ON	ON
		SW7	OFF	ON	OFF	ON	OFF	ON	OFF	ON
8 (RS485 Terminal Resistor)	ON	120 Ohm resistor is connected between RS485+ and RS485-. This connection is necessary on the last GV-Reader for multiple GV-Readers connecting via RS485.								
	OFF	Reader connects to controller via Wiegand or for all readers that connect via RS485 beside the last one (which has to be ON).								

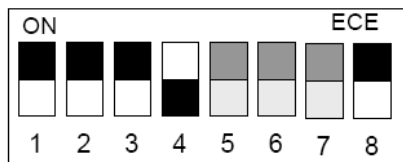
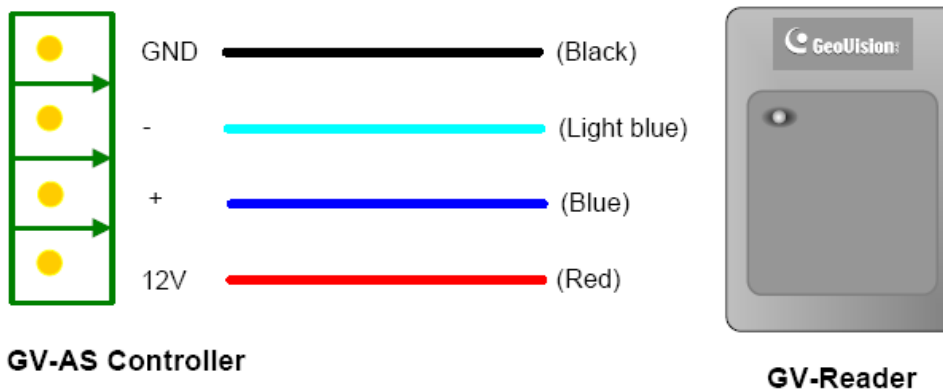
- ✓ Once a dipswitch is changed, power off then power on the reader to apply new settings

### 5.6.2 Wiegand Connection



SW4 must be turned ON.

### 5.6.3 RS485 Connection



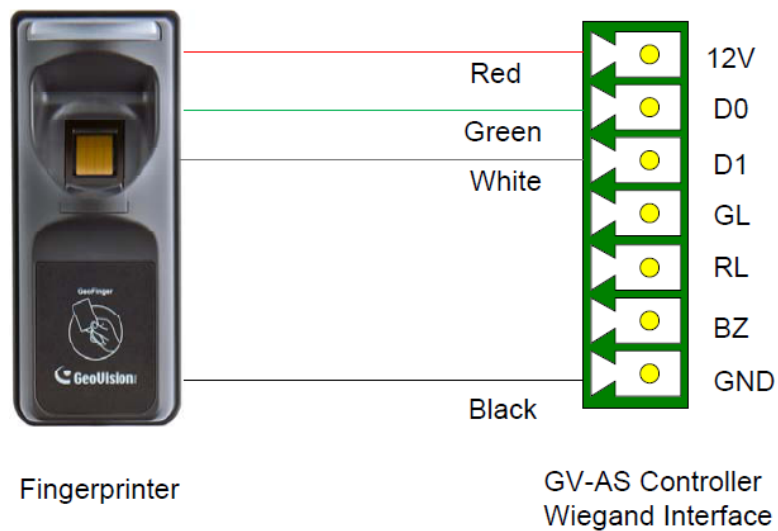
SW4 must be turned OFF.

- ✓ For multiple GV-Reader connections via RS485, all GV-Readers should have dipswitch 8 OFF beside the GV-Reader with last address, which will be ON.

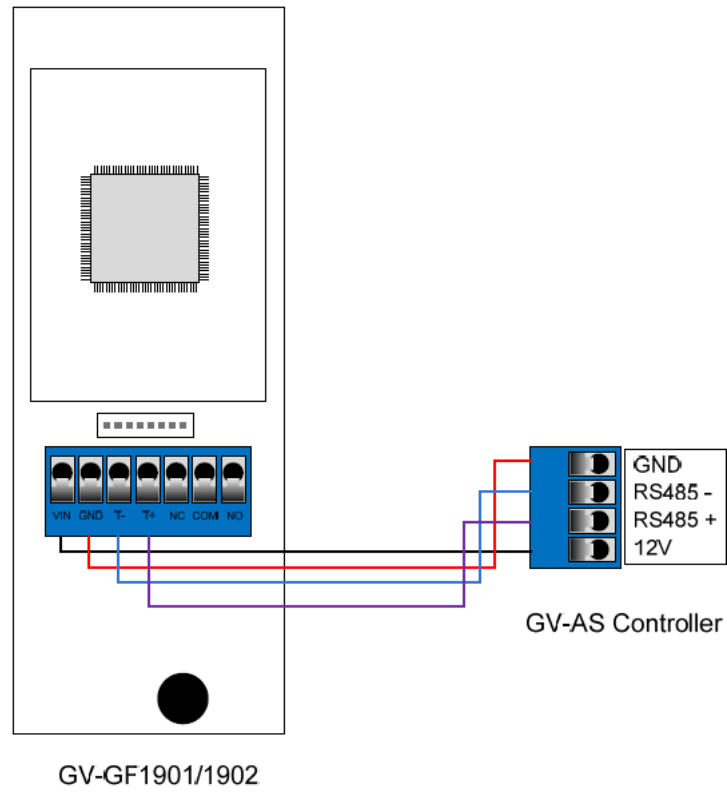
- For example, with 4 GV-Readers connecting through RS485, first 3 readers will have dipswitch 8 to be OFF while the last one (address 4) will be ON with a terminal resistor connecting between RS485+ and RS485-.

## 5.7 GV-Fingerprint Reader

### 5.7.1 Wiegand Connection



### 5.7.2 RS485 Connection



## 5.8 ASManager

### 5.8.1 Introduction

ASManager is the main database application that supports both access control and license plate recognition. The software also receives the status and events from each ASController (AS100/AS110/AS120, AS200, and AS400) for up to 255 controller connections. From ASManager, user may configure each door on each panel to operate according to certain schedule and input status.

- ASRemote is a remote application that connects to ASManager for remote control and viewing.
- ASWeb is a remote application that connects to ASManager for remote event log browsing.
- TA Web is a remote application that manages time and attendance of each employee.
- VM Web is a remote application that provides visitor management capability.

Basic ASManager can connect up to four access controllers without additional license. The ASManager USB key must be upgraded in order to accommodate more controllers (up to 255 controllers max). ASManager software can be installed from **Access Control Installation Disk**.

### 5.8.2 System Requirements

OS	32-bit	Windows XP / Vista / 7 / Server 2008
	64-bit	Windows Vista / 7 / Server 2008
CPU	Core 2 Duo E8400, 3.0 GHz	
Memory	2 x 1 GB Dual Channels	
Hard Disk	500 GB	
VGA	AGP or PCI-Express, 1280 x 1024 , 32-bit color and support DirectX 10	
DirectX	End-User Runtimes (November 2008)	
Software	.NET Framework 3.5 SQL Server 2005 Express (optional)	
Browser	Internet Explorer 7.0 or later	
<b>Note:</b> The software programs End-User Runtimes (November 2008) and .NET Framework 3.5 are required to run the GV-ASManager. The software programs can be found in the supplied software DVD.		

### 5.8.3 Main Features

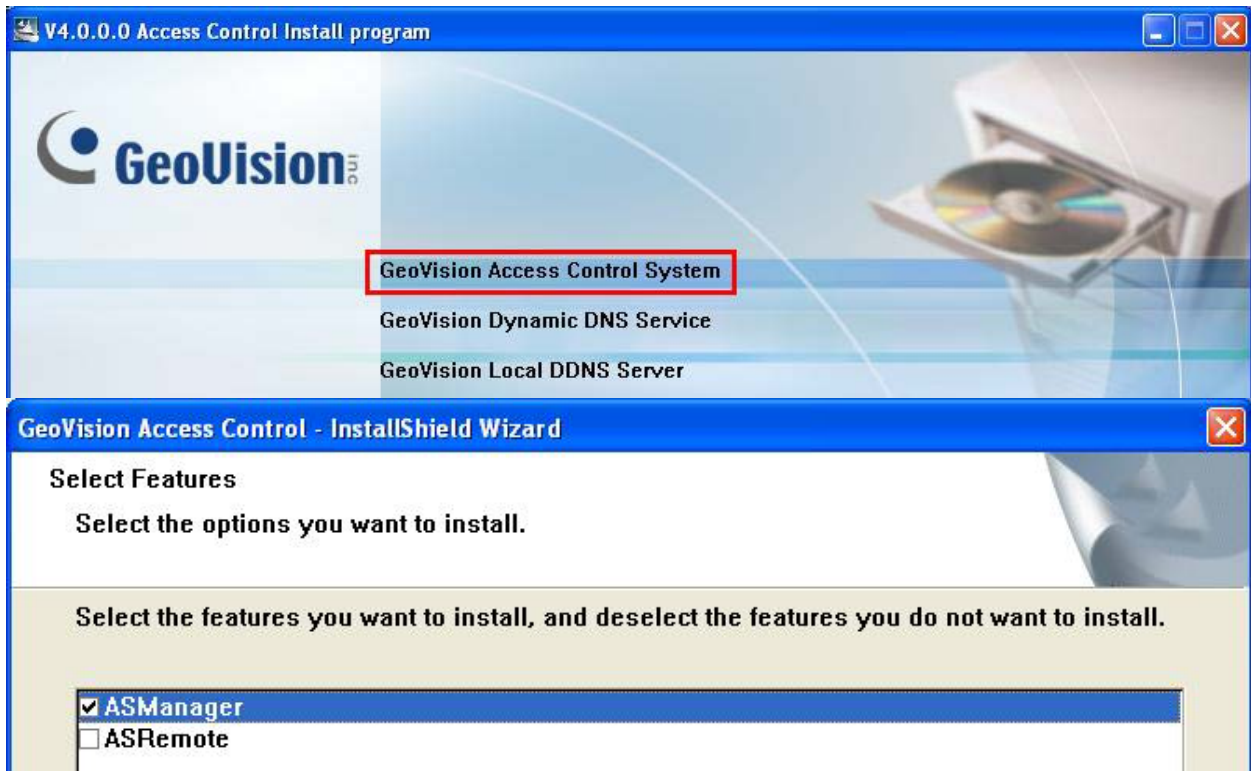
- Control up to 255 GV-AS Controllers
- Up to 256 time zones and weekly schedules
- Up to 40,000 cards
- Up to 1,000 system users
- Holiday planning for 14 months
- Multiple cards per user
- Four (4) access mode options: Card only mode (default), Card and PIN Code mode, Card or Common mode, Release mode
- Enroll cards in batch mode
- Door alarms: door held open, door forced entry, tamper, access denied
- Anti-Duress operation
- Anti-Passback capabilities
- Man trap in double door configuration
- Import/export of card and user data in Access or Excel file format
- User-defined matrix of 16-channel multi-views
- User-defined screen layout and dual monitor display support
- SMS or E-Mail notification with user-defined content, video snapshot and user photo
- Video integration with GeoVision IP devices (GV-System, GV-NVR, GV-Video Server, GV-Compact DVR, GV-IP Camera) and third-party IP cameras
- Support for connecting to third-party IP devices using ONVIF, PSIA and RTSP protocols
- Support Microsoft Access or SQL database

## 5.8.4 Software Installation

1. Insert “Access Control v4.0 Installation Disk” into DVD-ROM.



2. Click and install “**2. Install DirectX 9.0c**” then follow on-screen instructions.
3. Click and install “**3. Install Microsoft DirectX End-User runtimes (November 2008)**” then follow on-screen instructions.
4. Click and install “**4. Install Microsoft .NET Framework 3.5**” then follow on-screen instructions.
5. Select “**5. Install GeoVision v4.0.0.0 Access Control System**”.
6. Select “**GeoVision Access Control System**” then follow on-screen instructions to **disable UAC** and select **ASManager** when prompted.
7. Follow on-screen instructions to finish installation.



### 5.8.5 Initialize Database

1. On Windows desktop, click on “Start”, “All Programs”, “Access Control”, “ASManager”.
2. If ASManager is installed for the first time, create a default set of **ID**, **Password**, **Password Confirmation**, and **Hint**.

- ✓ Check “**Auto Login**” to allow ASManager to automatically login using the default set of ID and password (created in step 2 above) whenever ASManager starts.

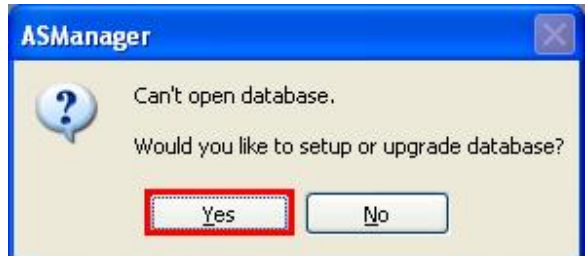
- ✓ Check “**Allowing removing password system**” to enable PassUninstall.exe in case user may lose the supervisor ID and password.

- ✓ *If the option was not checked and user cannot retrieve his/her supervisor ID and password, the only option to remove password database would be to reformat system hard drive and reinstall Windows operating system.*

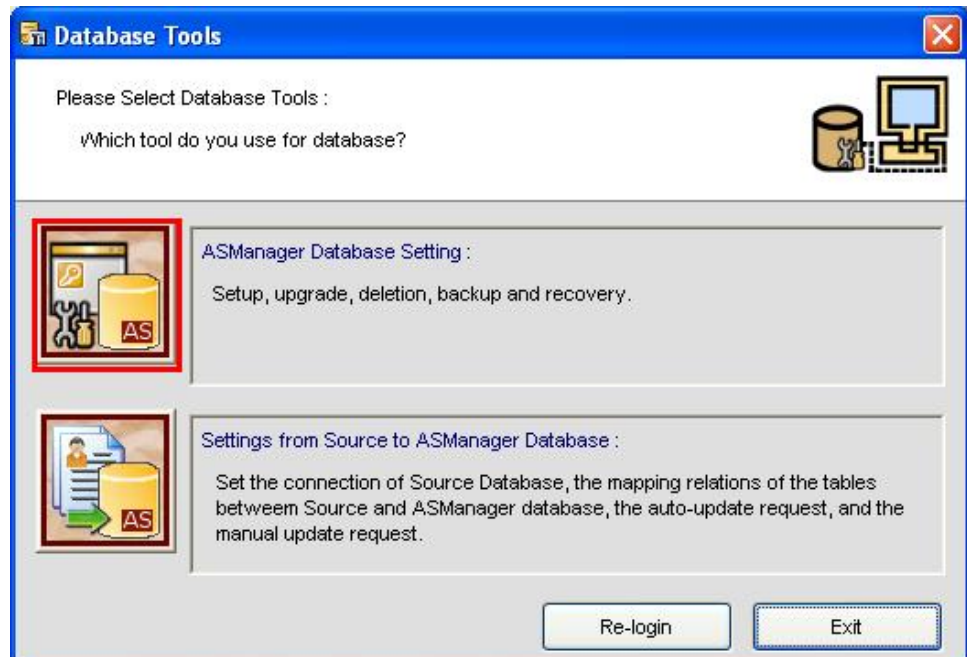


The dialog box titled "First Execution of Access System" contains a message: "You execute Access system at first time. Please enter Supervisor ID, Password." Below this are four input fields: "ID:", "Password:", "Password Confirmation:", and "Hint:". To the right of these fields is a red rectangular box. Below the input fields are two checkboxes: "Auto Login:" (checked) and "Allow removing password system" (checked). Below the checkboxes is a message: "To memorize this ID and password, and to login when you execute Access system everytime." At the bottom are "OK" and "Cancel" buttons, with the "OK" button highlighted by a red box.

3. Click “OK” to proceed.
4. Click “Yes” when prompted to setup or upgrade database.
5. Select “ASManager Database Setting” icon.

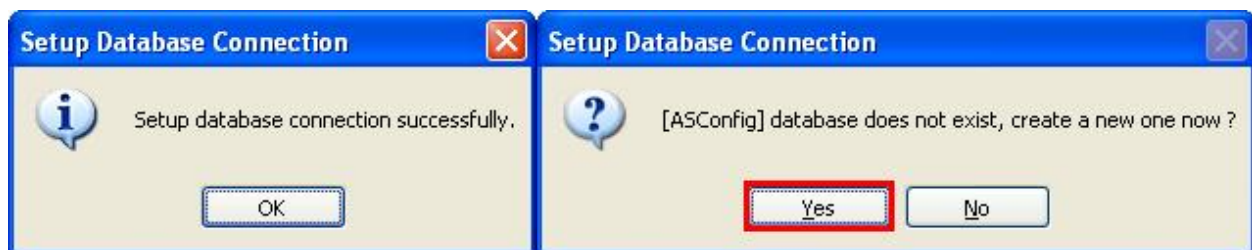
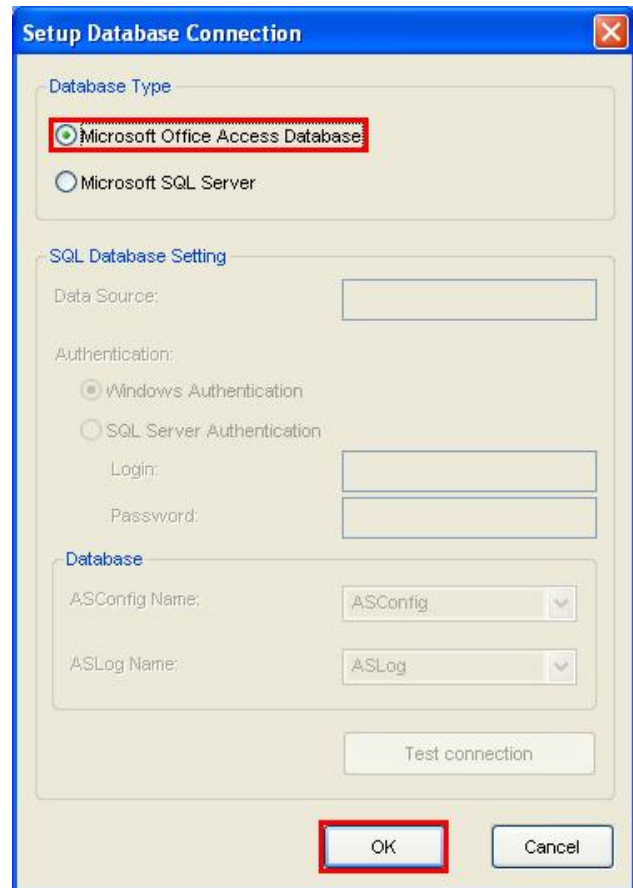
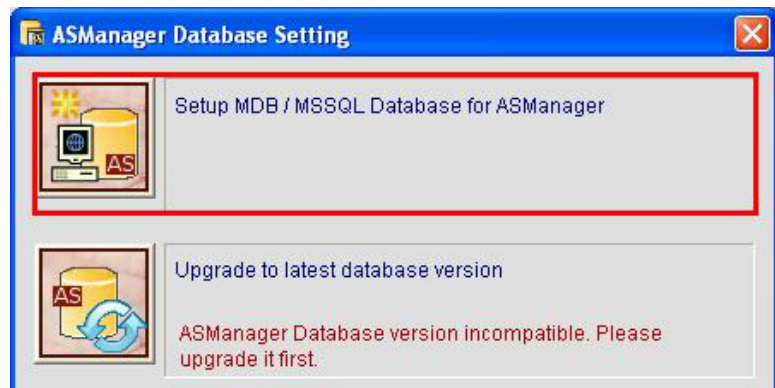


The dialog box titled "ASManager" contains a question mark icon and the text: "Can't open database. Would you like to setup or upgrade database?" Below the text are "Yes" and "No" buttons, with the "Yes" button highlighted by a red box.



The dialog box titled "Database Tools" contains the text: "Please Select Database Tools : Which tool do you use for database?" Below this are two icons: a red box around the "ASManager Database Setting" icon and a red box around the "Settings from Source to ASManager Database" icon. The "ASManager Database Setting" icon is highlighted by a red box. Below the icons are two text boxes: "ASManager Database Setting : Setup, upgrade, deletion, backup and recovery." and "Settings from Source to ASManager Database : Set the connection of Source Database, the mapping relations of the tables between Source and ASManager database, the auto-update request, and the manual update request." At the bottom are "Re-login" and "Exit" buttons.

6. Select **“Setup MDB / MSSQL Database for ASManager”**.
- ✓ To upgrade an existing ASManager database, select **“Upgrade to latest database version”**
7. Select **“Microsoft Office Access Database”**.
8. Click **“OK”**.
9. When prompted about missing database, click **“Yes”** to create new one.
10. Click **“OK”** when “Setup database connection successfully” message appears.
11. Click **“Exit”** to close “Setup Database Connection” window.
12. Click **“Exit”** to close Database Tools.
13. Restart ASManager and login using the credentials created in step 2.
- ✓ For detail instruction, refer to p.8 of ASManager User Manual

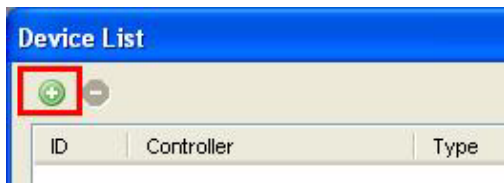


### 5.8.6 Controller & Door Setup

1. Under ASManager, select “**Devices**”.



2. Click “**Add**” under Controller List.



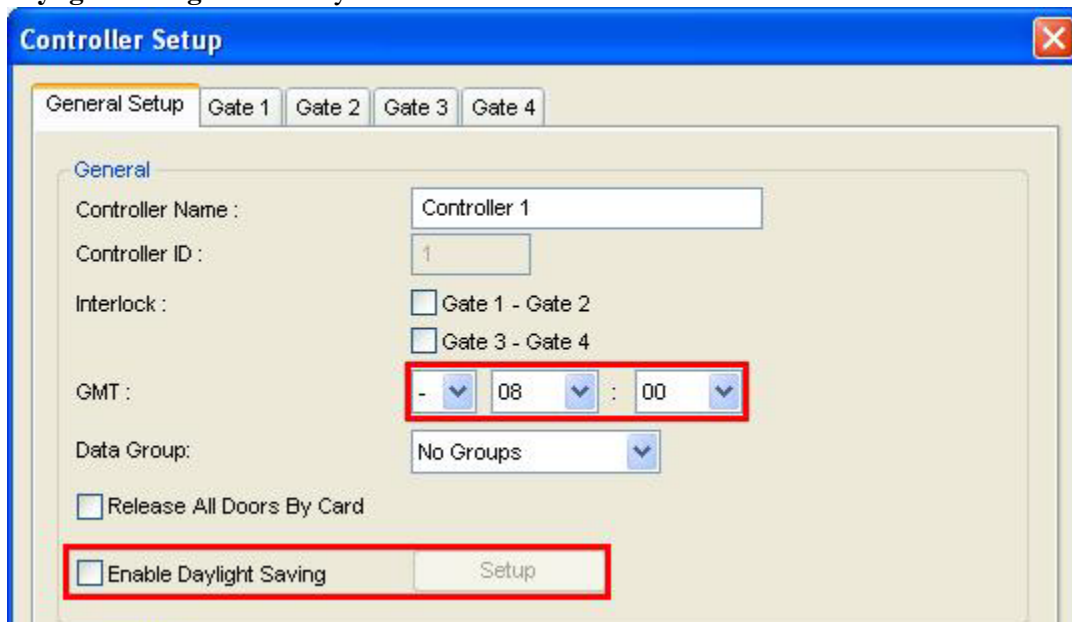
3. Enter Controller **ID**.

- ✓ For AS100/110 ID, refer to section 5.4.7
- ✓ For AS400 ID, refer to section 5.5.7



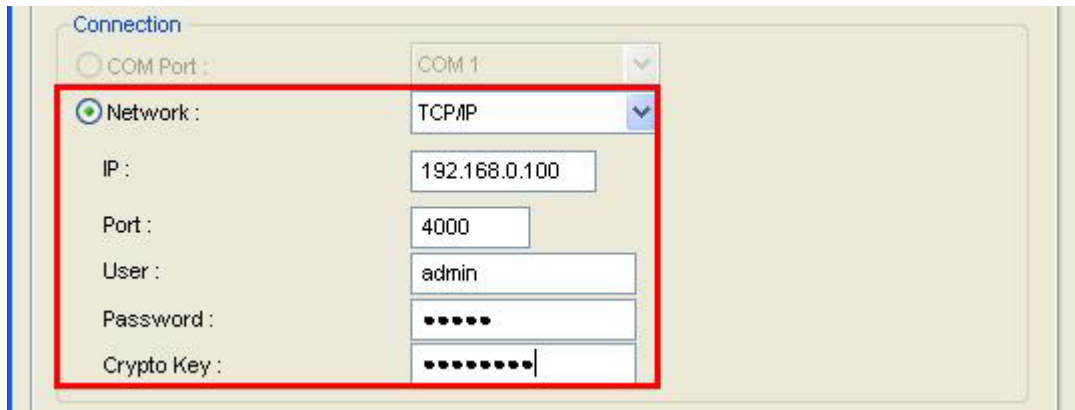
- ✓ By default, ASController has ID of 1.
- ✓ It is necessary to enter a different ID for each additional ASController.

4. **Name** the controller, if necessary; then select controller **Type** from the list.
5. Click “**OK**”.
6. Under Controller Setup window, select **General Setup** tab, define time zone and **Enable Daylight Saving** if necessary.



7. Select “**COM Port**” if ASController is connected via RS485. Otherwise, select “**Network**” for Ethernet connection.
  8. Enter the **IP address**, **Port**, **User ID**, **Password**, and **Crypto Key** of ASController.
- ✓ By default, ASController has IP of **192.168.0.100**.

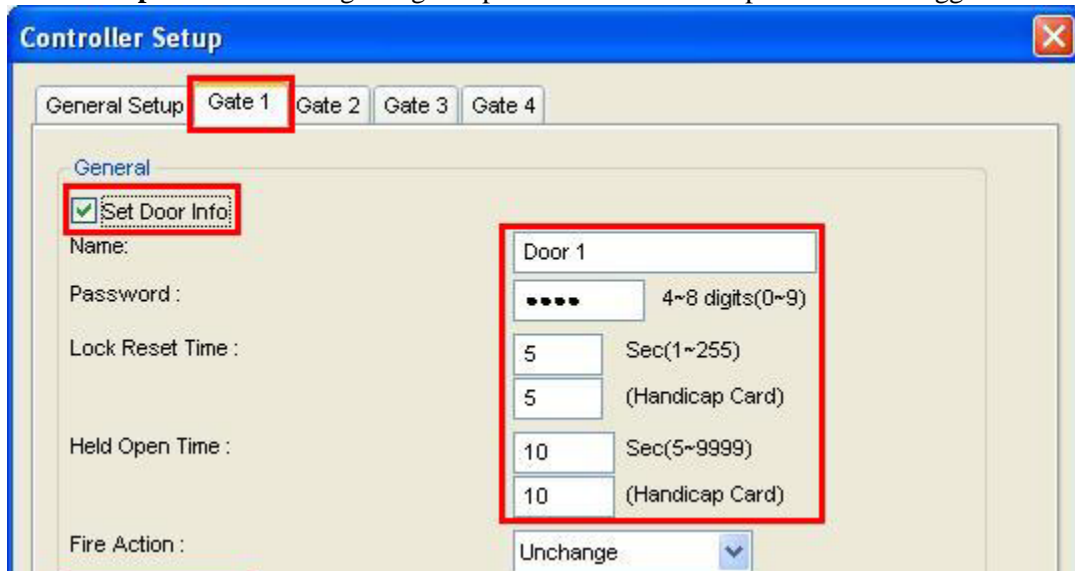
- ✓ By default, ASController has Port of **4000**.
- ✓ By default, ASController has **User ID** and **Password** of **admin** and **admin**.
- ✓ By default, ASController has Crypto Key of **12345678**.



9. Select **Gate 1** tab, check “**Set Door Info**” to enable the door.
10. Name the door if necessary; then define a password for the door.

✓ *Door password is valid under “Card or Common Mode” only*

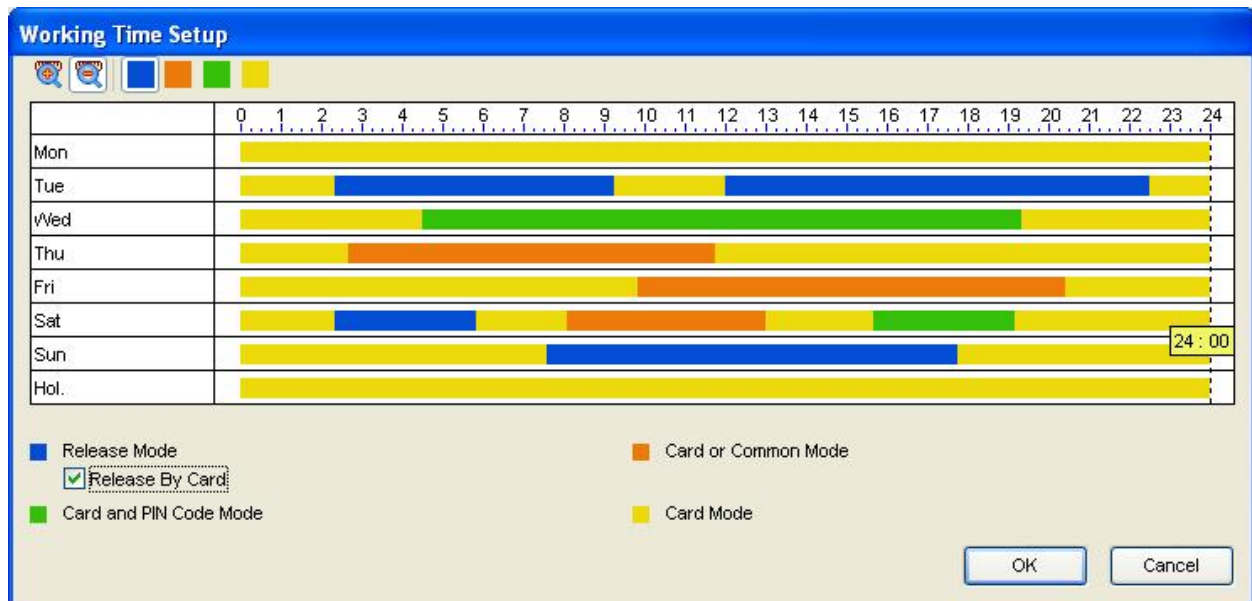
11. Set **Lock Reset Time** to designate door unlock period.
12. Set **Held Open Time** to designate grace period before “Held Open” alarm is triggered.



13. If a keypad reader is installed (GV-RK1352), check “**Reader’s Keypad**” option.
14. If GV-Fingerprint Reader is installed to open this door, check “**GeoFinger**” option.
15. Select **Authentication Schedule** and designate the door operation schedule by selecting the corresponding color and drag over desired time period.



- ✓ By default, Release Mode will unlock the door at the designated time schedule
- ✓ Check **“Release By Card”** to activate Release Mode only when a card is swiped



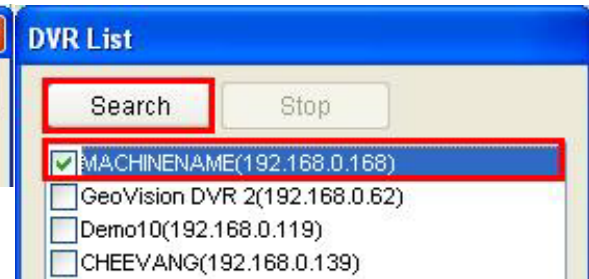
16. Click **“OK”** to return to Controller Setup.
17. If a physical alarm is installed as an output, check the conditions to trigger the alarm under **Alarm Event** and designate **Alarm Continuous Time**.
18. Check **“Set Camera Mapping”** to map cameras to this door, and click the **green arrow** next to First Camera.



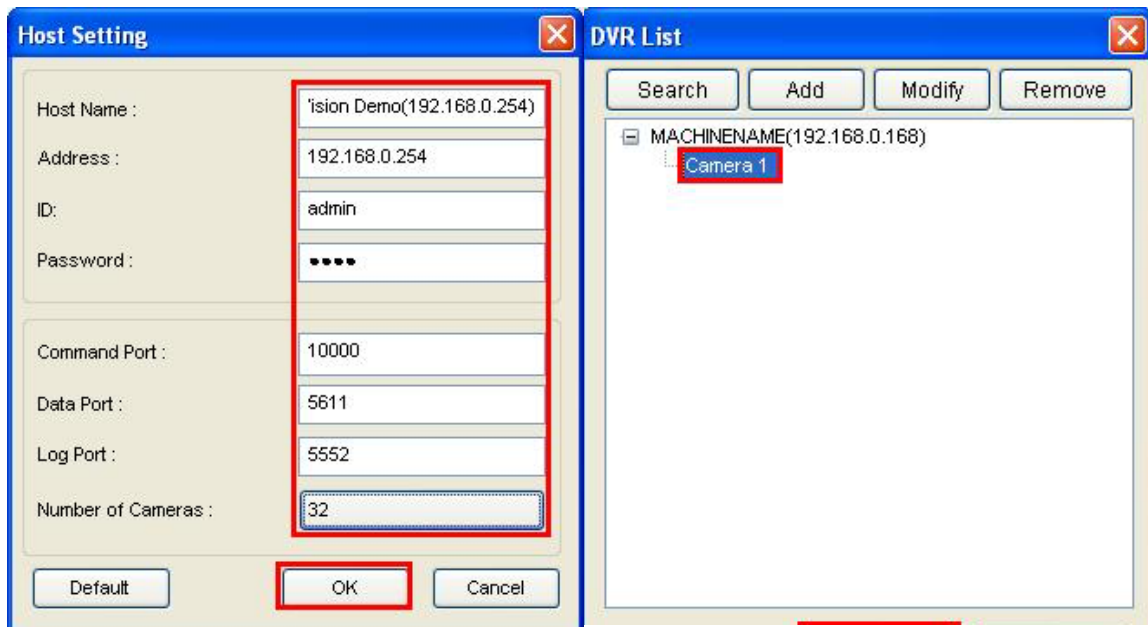
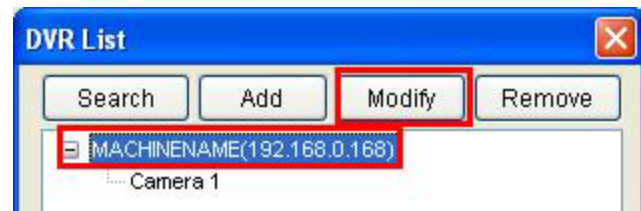
19. Under DVR List window, click **“Search”** then select **“Search DVR and NVR”** to scan for GV-NVR/DVR within the local network.



- ✓ Alternatively, select “**Search IP Device**” to scan for GV-IP Devices



20. Click “**Search**” to start scanning.
21. Check the desired DVR/NVR system and click “**Add**”.
22. Highlight the DVR/NVR then select “**Modify**”.
23. Enter the **IP address, ID, Password,** and Control Center ports of the DVR/NVR.
24. Click “**OK**”.



25. Under DVR List window, highlight the corresponding camera to be mapped and click “**OK**”.
26. If a second camera were to be mapped to the same door, repeat steps 18 to 25 for Second Camera.
27. Repeat steps 9 to 26 for Gates 2 to 4, if available.
28. Under Controller Setup window, click “**OK**” to add the controller under ASManager.

- ✓ Under Device View, if connection icon shows a yellow dot, then the connection is successful.
- ✓ Under Device View, if connection icon shows a red x, then the connection is NOT successful. Repeat steps 1 through 8 and make sure the information is correct.



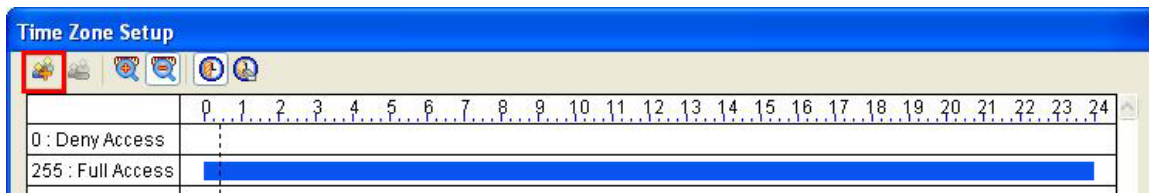
- ✓ For detail instruction, refer to p.20 of ASManager User Manual

### 5.8.7 Time Zone Setup

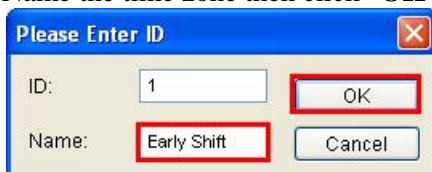
1. Under ASManager, select “Time Zones”.



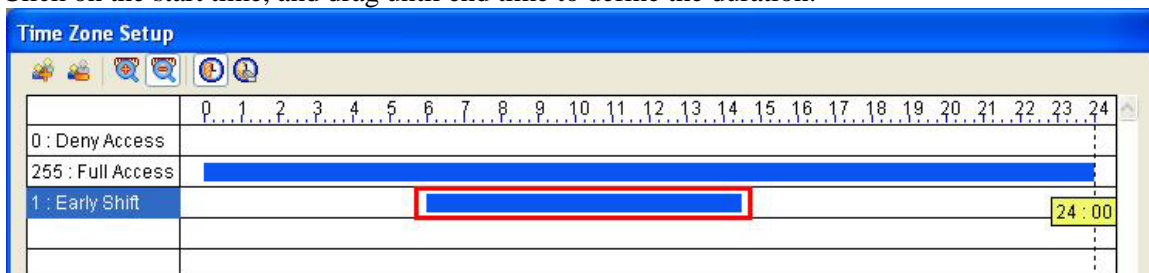
2. Click “Add”.



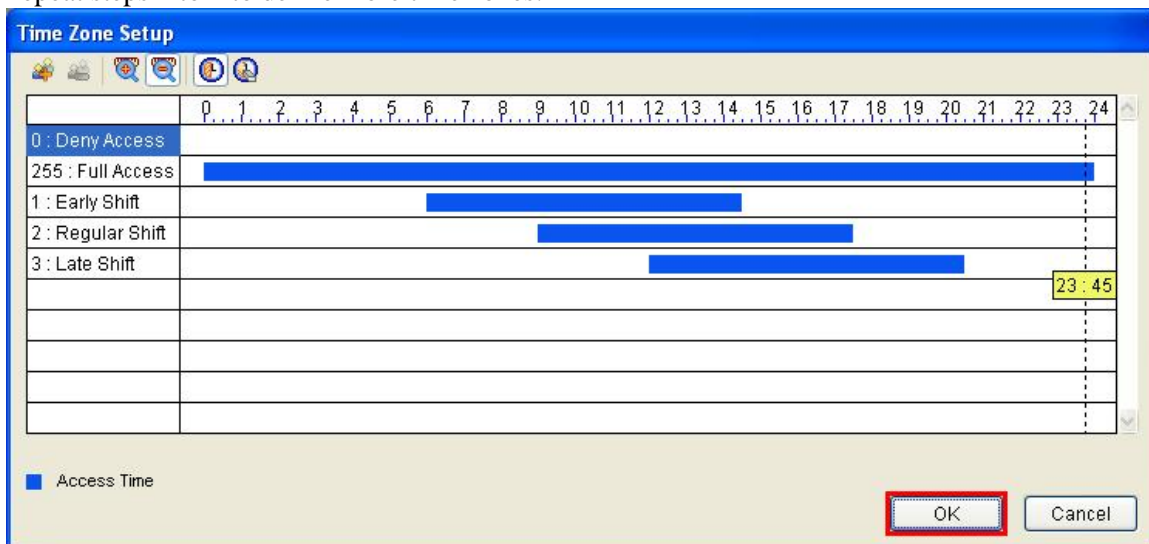
3. Name the time zone then click “OK”.



4. Click on the start time, and drag until end time to define the duration.



5. Repeat steps 2 to 4 to define more time zones.



6. Click “OK” when finished.

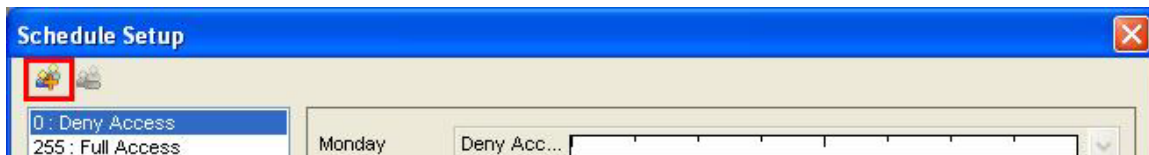
- ✓ For detail instruction, refer to p.32 of ASManager User Manual

### 5.8.8 Weekly Schedule Setup

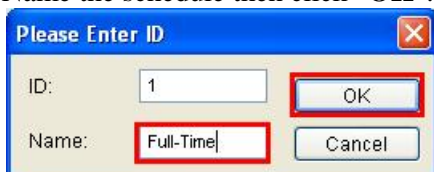
1. Under ASManager, select “**Weekly Schedule**”.



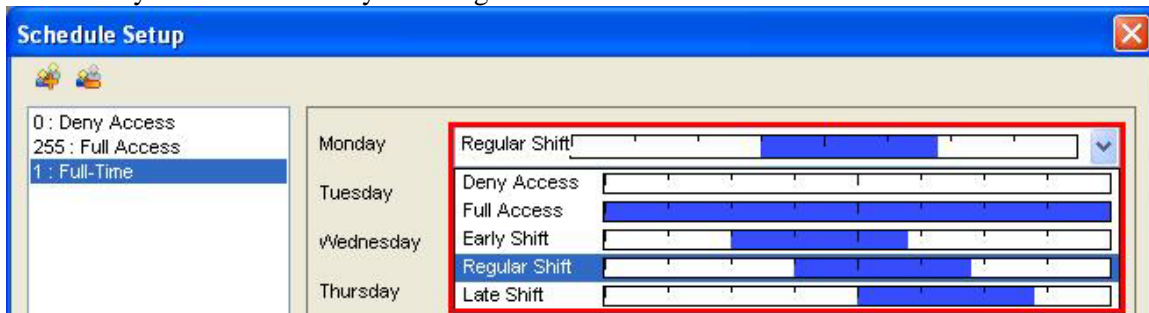
2. Click “**Add**”.



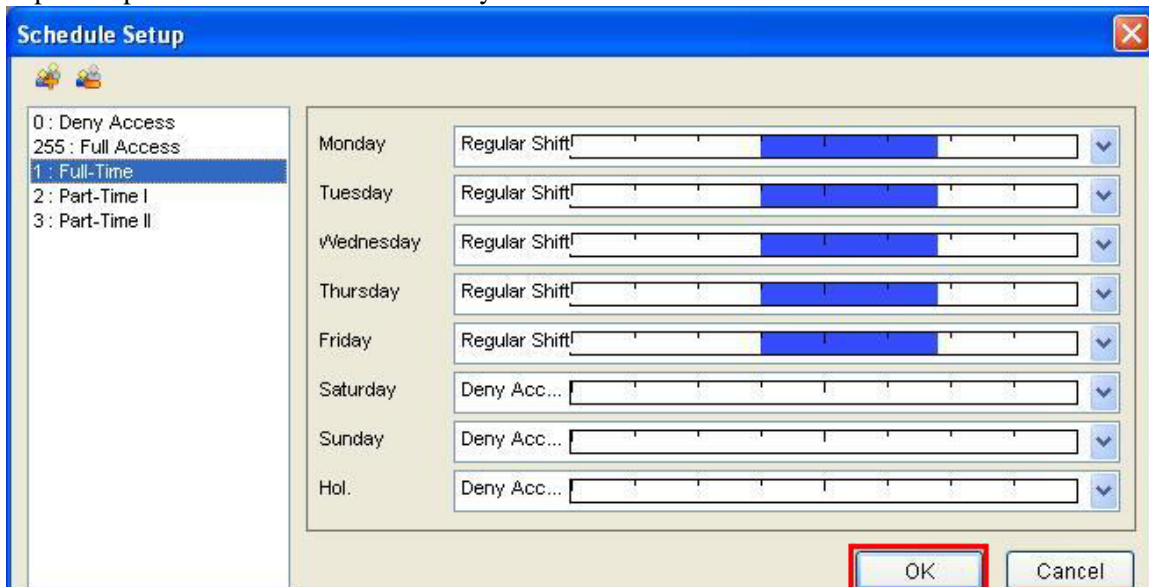
3. Name the schedule then click “**OK**”.



4. Define daily access schedule by selecting the time zones created in section 5.8.7.



5. Repeat steps 2 to 4 to define more weekly schedules.



6. Click “**OK**” when finished.

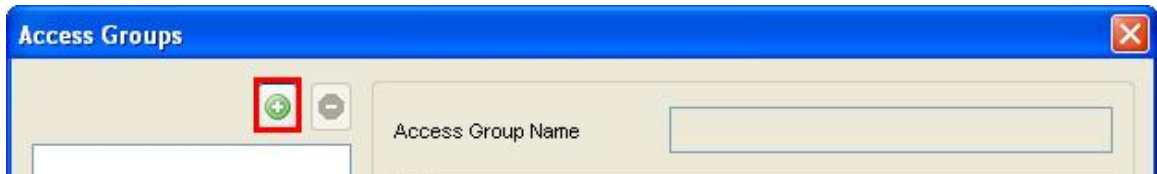
- ✓ For detail instruction, refer to p.34 of ASManager User Manual

### 5.8.9 Access Group Setup

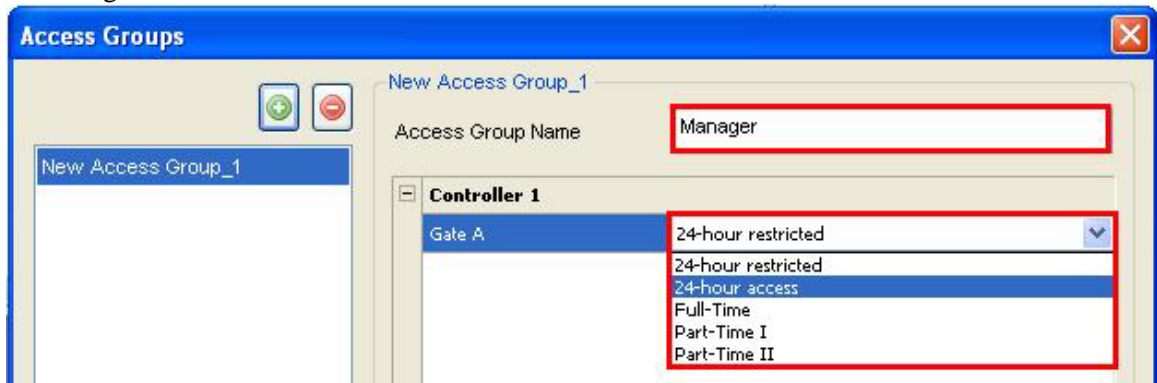
1. Under ASManager, select “Access Groups”.



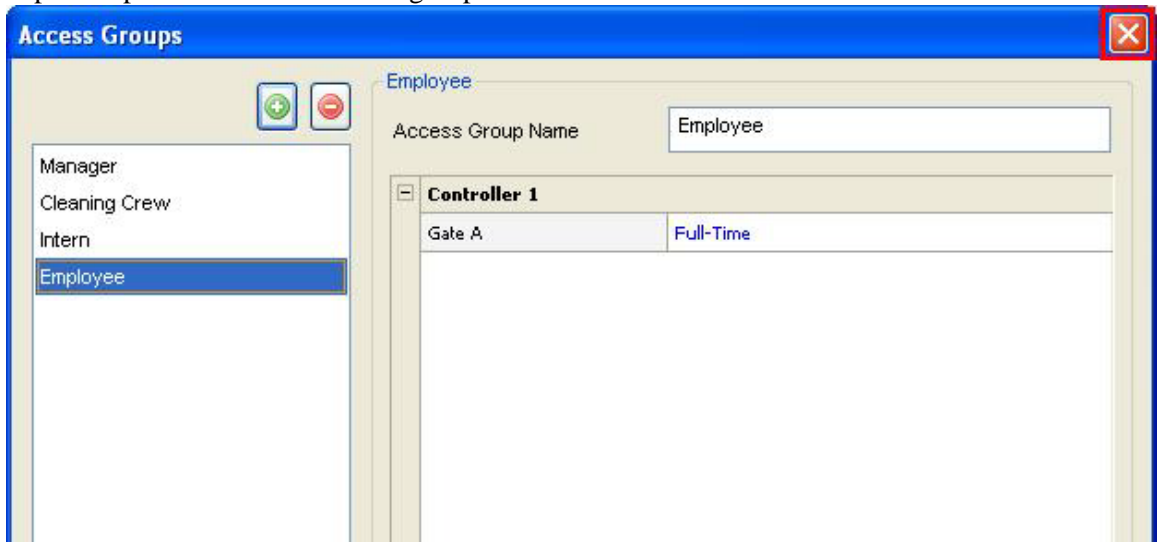
2. Click “New”.



3. Name the access group and select the weekly schedule to be applied on each door for this group according to schedules created in section 5.8.8.



4. Repeat steps 2 to 3 to define more groups.



5. Exit the window when finished.

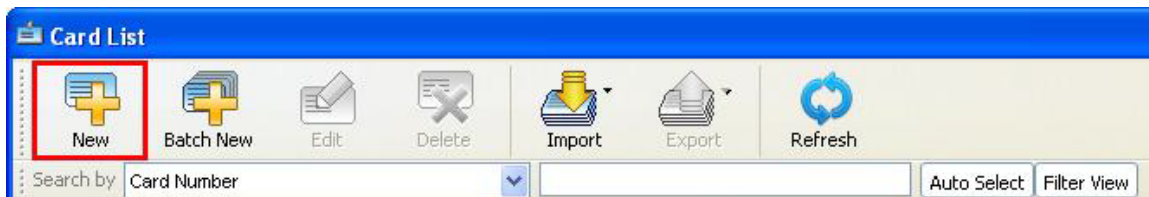
- ✓ For detail instruction, refer to p.37 of ASManager User Manual

### 5.8.10 Cards Setup

1. Under ASManager, select “Cards”.



2. Click “New”.



3. Select **Code Type** then enter **Card Number** (numbers only).

- a. **Wiegand 26** allows 8-digit card number (default)
- b. **Geo34** allows 10-digit card number
- c. **HID 37** allows 11-digit card number

✓ *ASManager supports Wiegand 26 ~ 64 frequency. However, only Wiegand 26, 34, and 37 are defined by default. If a third-party reader with non-default frequency is used, it is necessary to first define the Wiegand parameters so that ASManager can read the card numbers properly. Such configuration can be done under **Personnel**, “**Code Format Settings...**”*

4. Select the **Privilege** level for this card and assign it to an **Access Group** in the drop-down list as defined in section 5.8.9.

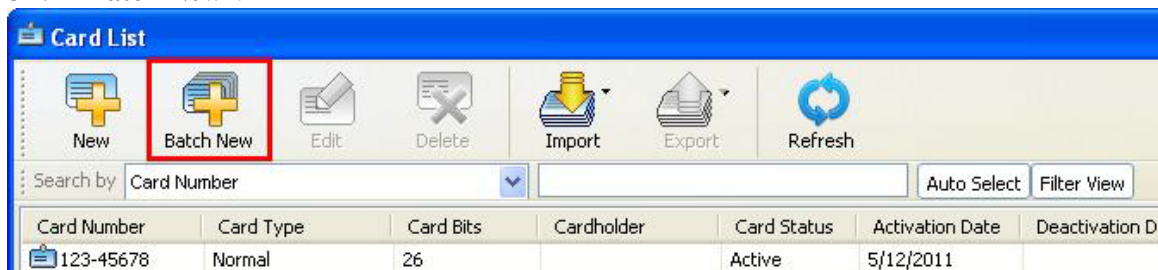
✓ *Pin Code is valid under “Card and Pin Code Mode” only*

✓ *Alternatively, select “User Define” in Access Group to grant or deny 24-hour access*

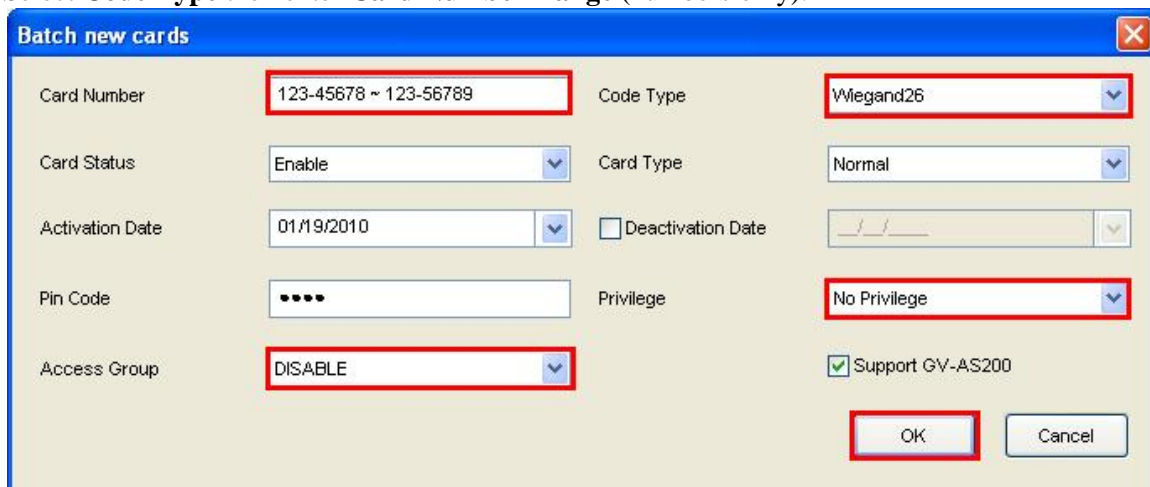
5. Click “OK” when finished.

- ✓ Alternatively, to enroll multiple cards with consecutive card numbers, use “**Batch New**” option.

6. Click “**Batch New**”.



7. Select **Code Type** then enter **Card Number Range** (numbers only).

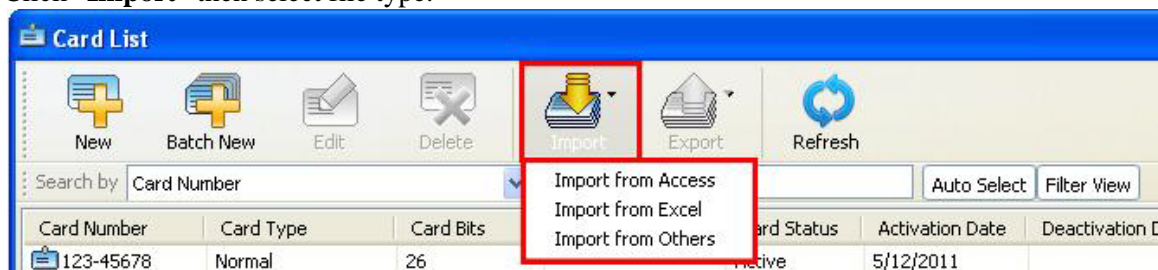


8. Enter the **Privilege** level for the batched cards and assign them to an **Access Group** in the drop-down list as defined in section 5.8.9

9. Click “**OK**” when finished.

- ✓ The third option to create a card database would be to import an existing database from Microsoft Excel or Access.

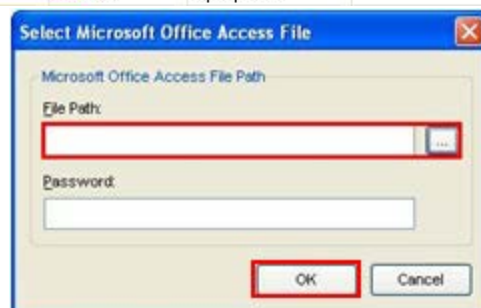
10. Click “**Import**” then select file type.



11. Indicate **File Path** to locate database file.

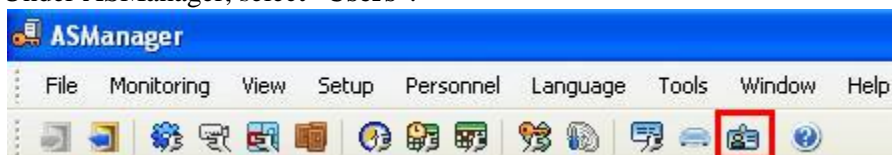
12. Click “**OK**” when finished.

- ✓ For detail instruction, refer to p.27 of ASManager User Manual



### 5.8.11 Cardholders Setup

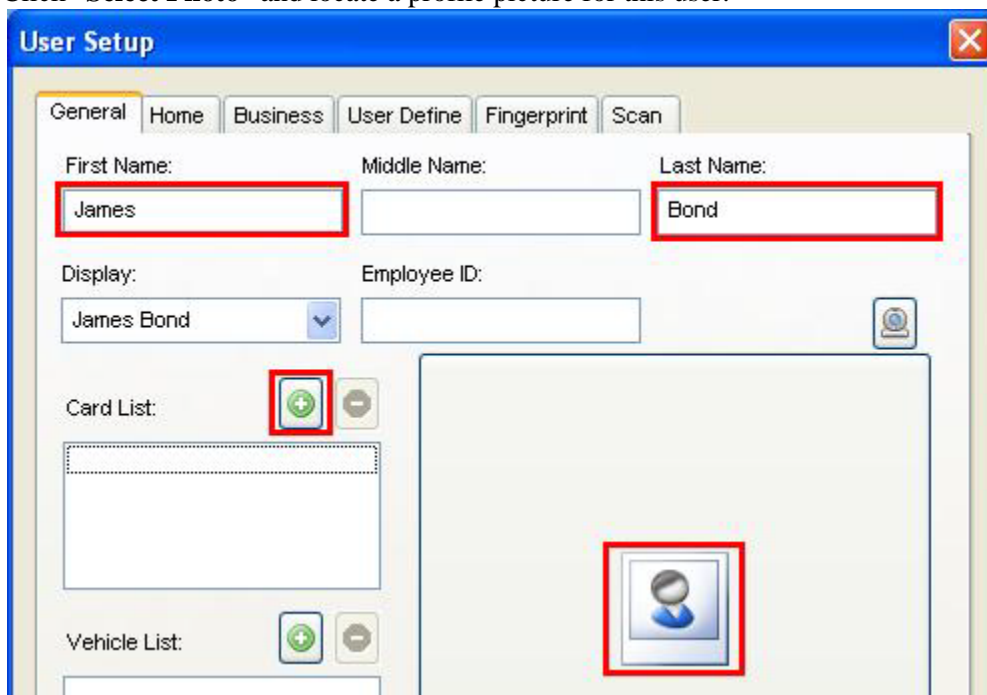
1. Under ASManager, select “Users”.



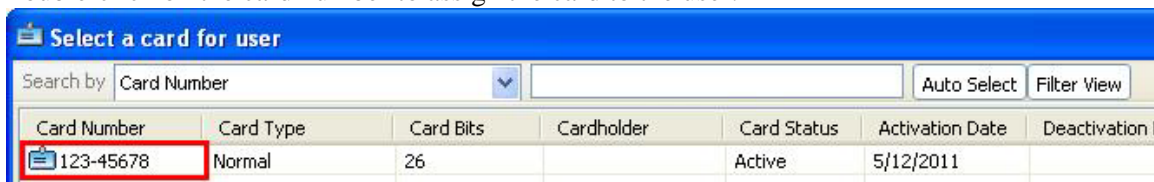
2. Click “New”.



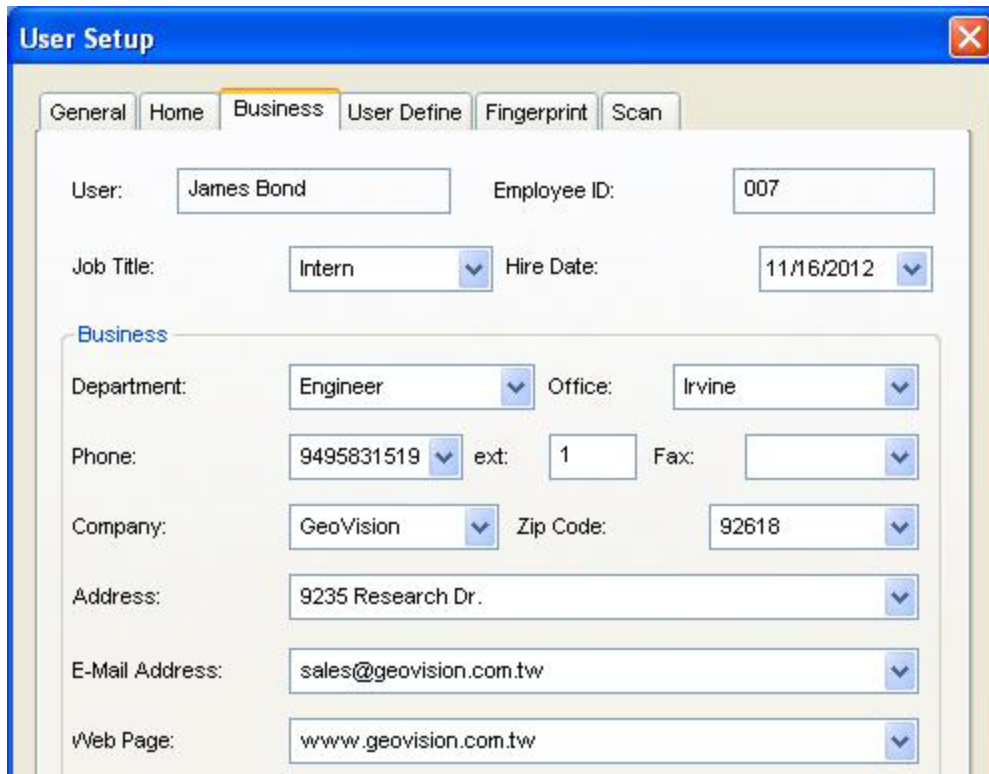
3. Enter **First Name**, **Last Name**, and **Employee ID** (if applicable).
4. Click “Select Photo” and locate a profile picture for this user.



5. Next to Card List, click “Add” to add a card that belongs to this user.
6. Double-click on the card number to assign the card to the user.



7. Repeat steps 5 and 6 to add more cards for the same cardholder, if applicable.
8. Go to **Home**, **Business**, and **User Define** tabs to add additional information regarding user, if applicable.



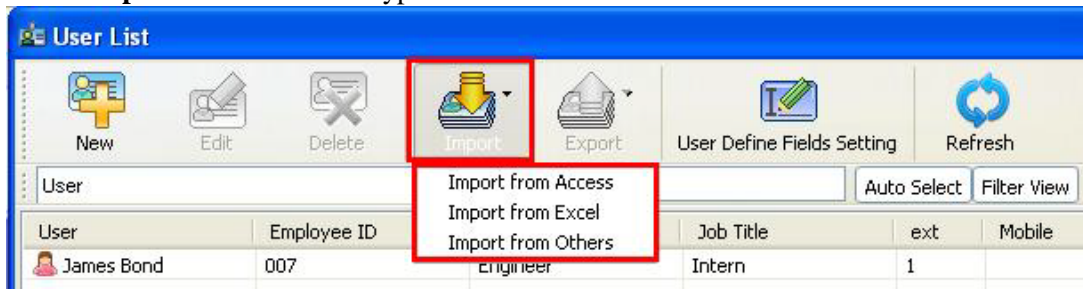
The 'User Setup' dialog box is shown with the 'Business' tab selected. It contains the following fields:

- User: James Bond
- Employee ID: 007
- Job Title: Intern (dropdown)
- Hire Date: 11/16/2012 (dropdown)
- Department: Engineer (dropdown)
- Office: Irvine (dropdown)
- Phone: 9495831519 (dropdown)
- ext: 1
- Fax: (dropdown)
- Company: GeoVision (dropdown)
- Zip Code: 92618 (dropdown)
- Address: 9235 Research Dr. (dropdown)
- E-Mail Address: sales@geovision.com.tw (dropdown)
- Web Page: www.geovision.com.tw (dropdown)

9. Click “**OK**” when finished.

✓ Alternatively, an user database can also be imported from Microsoft Excel or Access.

10. Click “**Import**” then select file type.



The 'User List' dialog box is shown. The 'Import' button (represented by a yellow arrow pointing down into a box) is highlighted with a red rectangle. A tooltip menu is visible over the 'Import' button, listing the following options:

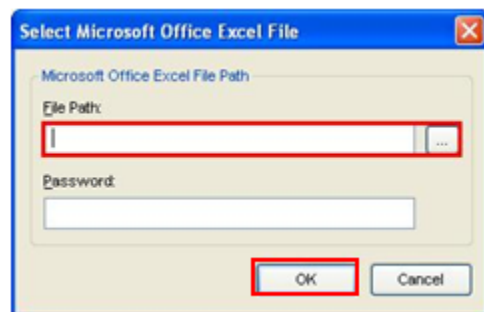
- Import from Access
- Import from Excel
- Import from Others

The 'User List' table below the buttons shows the following data:

User	Employee ID	Job Title	ext	Mobile
James Bond	007	engineer	1	

11. Indicate **File Path** to locate database file.

12. Click “**OK**” when finished.



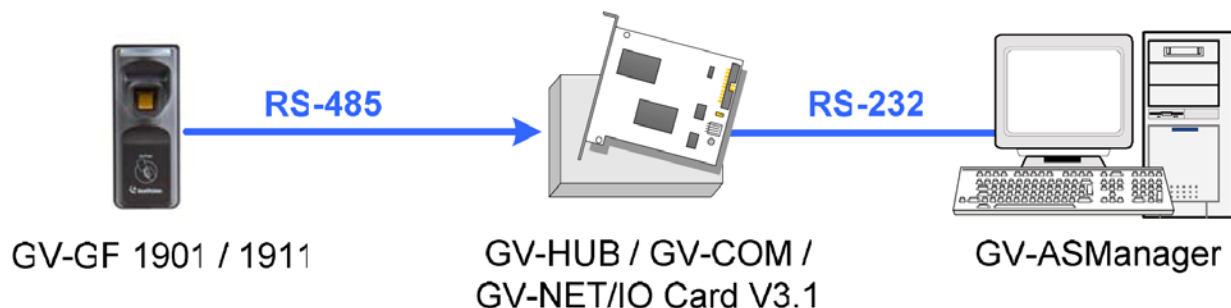
The 'Select Microsoft Office Excel File' dialog box is shown. It contains the following fields:

- File Path: (text input field, highlighted with a red rectangle)
- Password: (password input field)
- OK button (highlighted with a red rectangle)
- Cancel button

✓ For detail instruction, refer to p.39 of ASManager User Manual

### 5.8.12 Fingerprint Enrollment

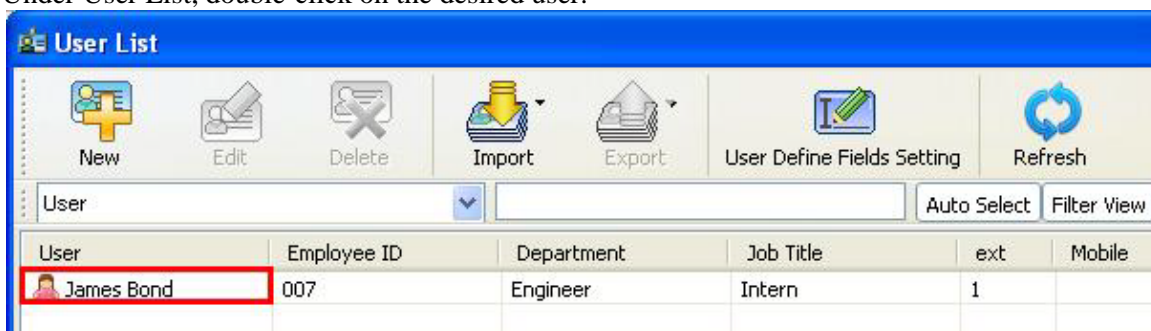
- ✓ In order to enroll fingerprint in ASManager, it is required to connect GV-GF1901 to ASManager directly via GV-COM or GV-Net/IO Card.



1. Under ASManager, select “Users”.



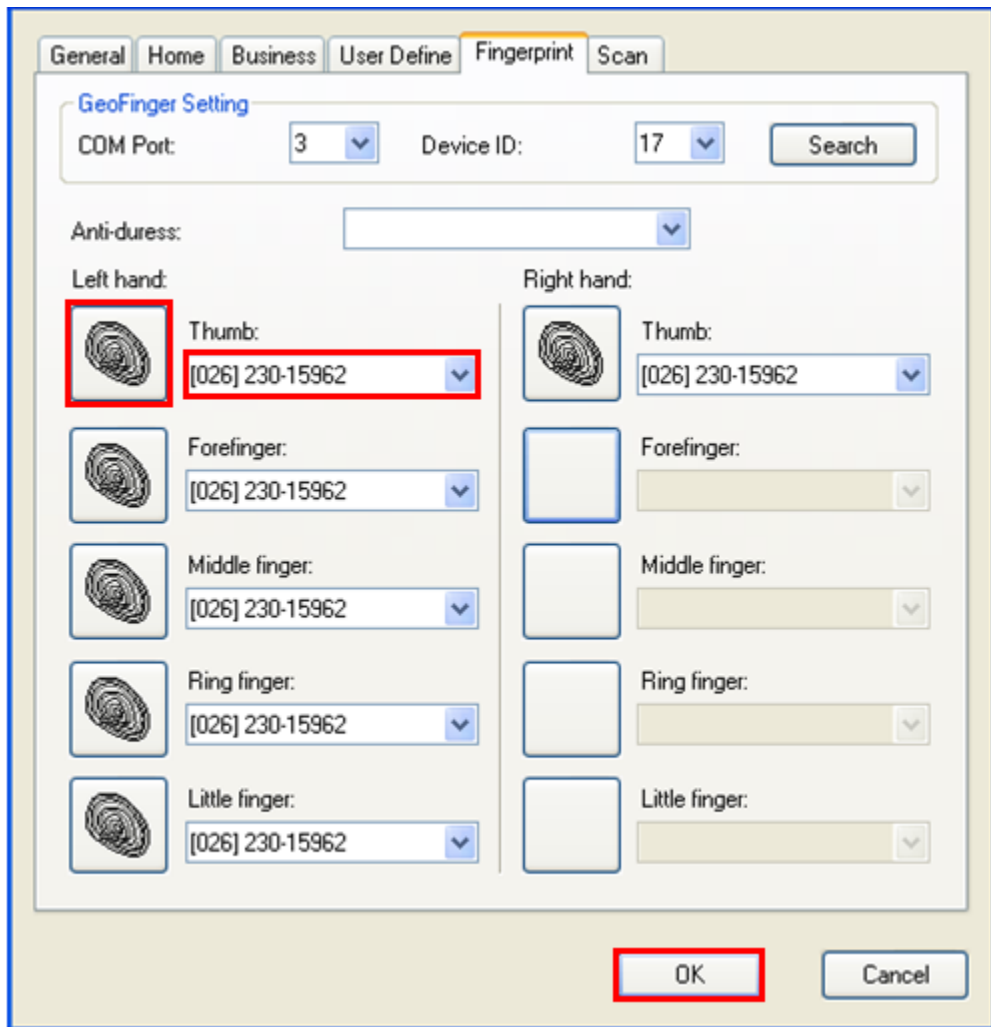
2. Under User List, double-click on the desired user.



3. Under Fingerprint tab, click “Search” to locate the GV-Fingerprint reader connected to ASManager.



- ✓ If a GV-Fingerprint reader is not found, verify COM port and RS485 connection as shown above in the connection diagram.
4. Click on any fingerprint square to start enrolling fingerprint.



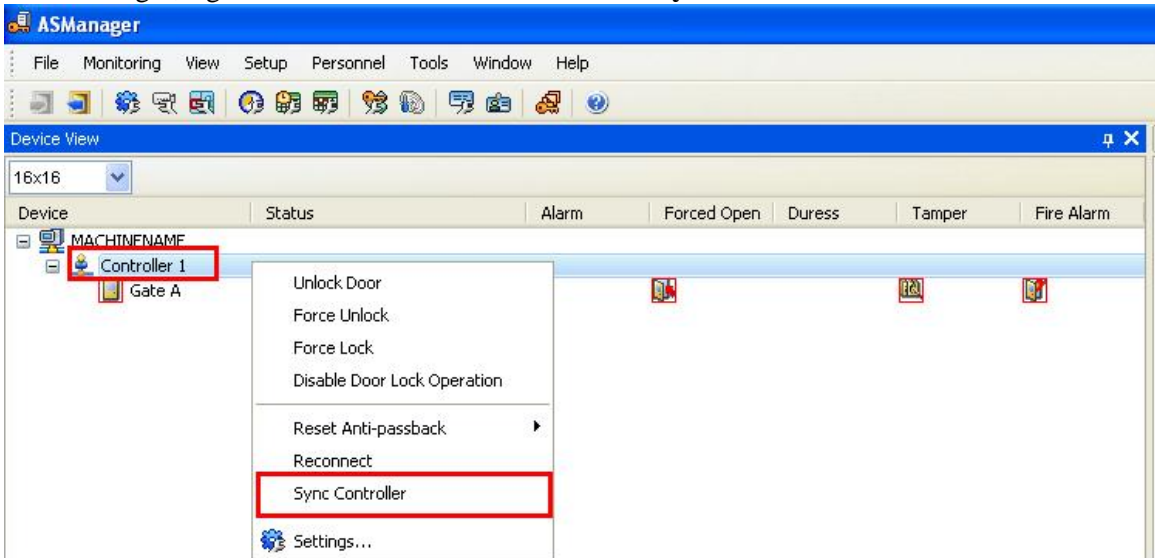
5. Place the specific finger on GV-Fingerprint reader to register fingerprint.
  6. Place the same finger on GV-Fingerprint reader again to confirm the enrollment.
  7. In the drop-down list, assign a card number to associate with the fingerprint.
  8. Repeat steps 4 to 7 to enroll all ten fingers if necessary.
  9. Click “**OK**” when finished.
- ✓ Confirm steps 17 to 20 under section 5.5.7 to verify GV-Fingerprint readers are properly recognized by AS400
  - ✓ Confirm GeoFinger option is checked for the specific door as indicated in step 14 in section 5.8.6.
10. Under ASManager, select “**Fingerprint Access**”.



11. Select the desired door on the left panel in which the fingerprints will be uploaded to.
12. Select the enrolled fingerprints from the right panel and click “<- **Add**” to upload to this door.



13. In ASManager, right-click on the controller and select “Sync Controller”.



✓ For detail instruction, refer to p.68 of ASManager User Manual