

1. Getting Started

1.1 Introduction

The GV-Data Capture V3E is the network version of GV-Data Capture V2. With an Ethernet jack, the V3E allows you to integrate POS systems (cash registers) and GV-System through LAN or Internet. The V3E features:

- Provide LAN / Internet connection
- Provide a greater range of POS deployments, overcoming the distance limit of RS-232 or RS-485 cables.
- Connect up to 16 POS systems (cash registers) to one GV-System.

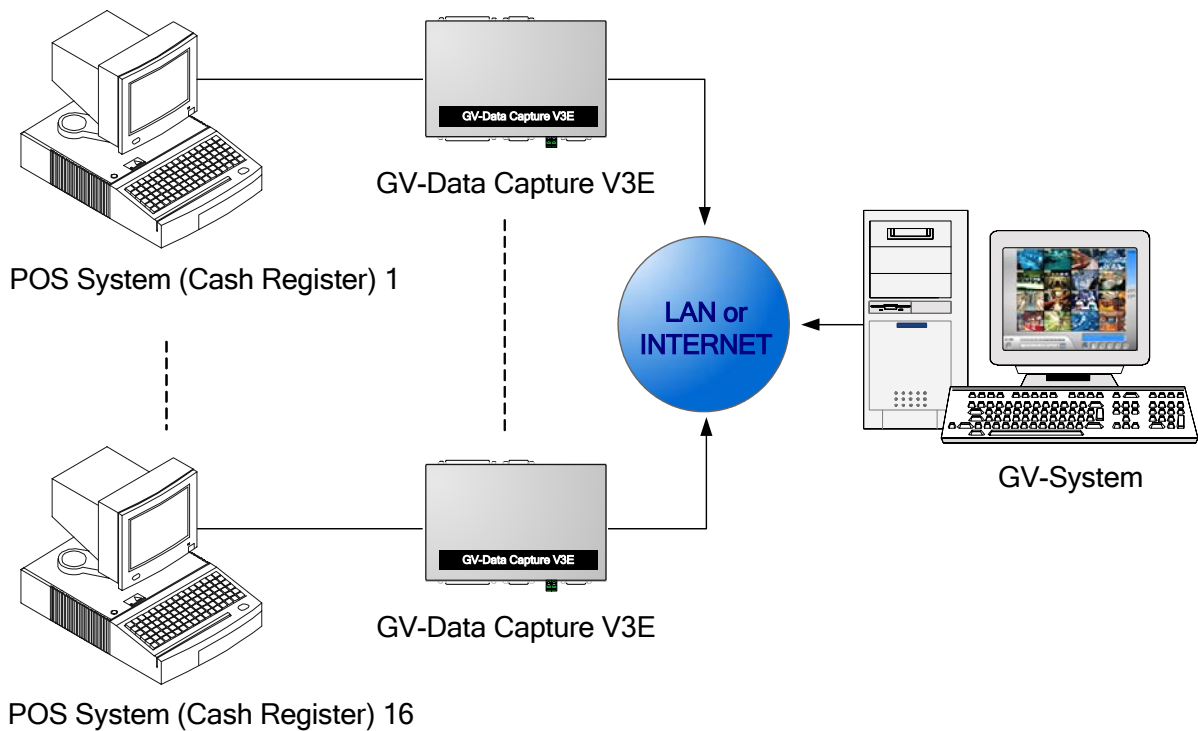


Figure 1

1.2 Unpacking (待確認)

- 1 x GV-Data Capture V3E box
- 1 x DB9 RS-232 cable (1.8 meters)
- 1 x DB9 RS-232 cable (3 meters)
- 1 x DB25 RS-232 cable (1.8 meters)
- 1 x Power Adaptor DC 5V
- 1 x DB9 Male to DB9 Male (Gender Changer) No. 4
- 1 x DB9 Female to DB9 Female (Gender Changer) No. 5
- 2 x Wall Hook

1.3 System Requirements

GV-System version 8.1 or later

IMPORTANT:

1. The GV-Data Capture V3E is exclusively designed to support serial POS systems (cash registers). For graphic or parallel mode, see other documentation at <http://www.geovision.com.tw/english/faq/POSflowchart/graphic/posflow-3.htm>
 2. The GV-Data Capture V3E can work with both POS systems and cash registers. In the following chapters, we use POS systems to cover the two types of applications.
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2. V3E Overview

This chapter identifies the various components of GV-Data Capture V3E.

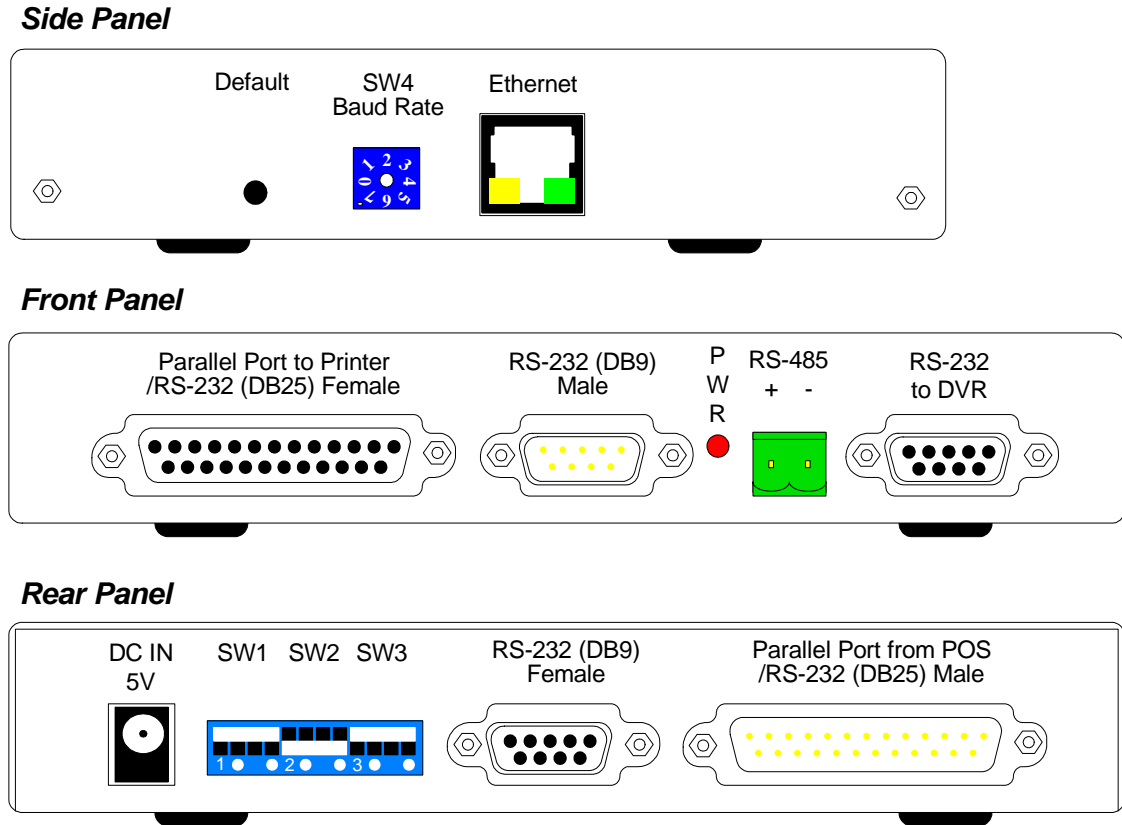
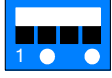
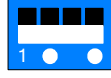
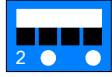
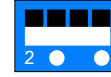
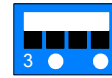
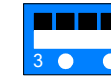


Figure 2

2.1 DIP Switch Setting

To adjust the DIP Switches, refer to the chart below:

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

2.2 Baud Rate Setup

To have the POS data transferred to the GV-System via V3E, you need to set the exact baud rate in each connected device, including the V3E and POS systems (cash registers).

On the side panel of V3E, there is a Baud Rate Switch (名稱暫定, see [Figure 2](#)). Seven numbers (from 0 to 7) on the Switch represents a kind of baud rate. See the chart below.

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

3. Configuring V3E

The GV-Data Capture V3E provides two solutions to connect your POS system to GV-System through LAN / Internet:

1. Fixed IP
2. DHCP

Depending on your POS system's network, you can choose **Fixed IP** for static IP addresses, or **DHCP** for dynamic IP addresses such as those assigned by an ISP or other DHCP server.

3.1 Fixed IP

If your POS system supports a static IP address, the wiring is illustrated as below:

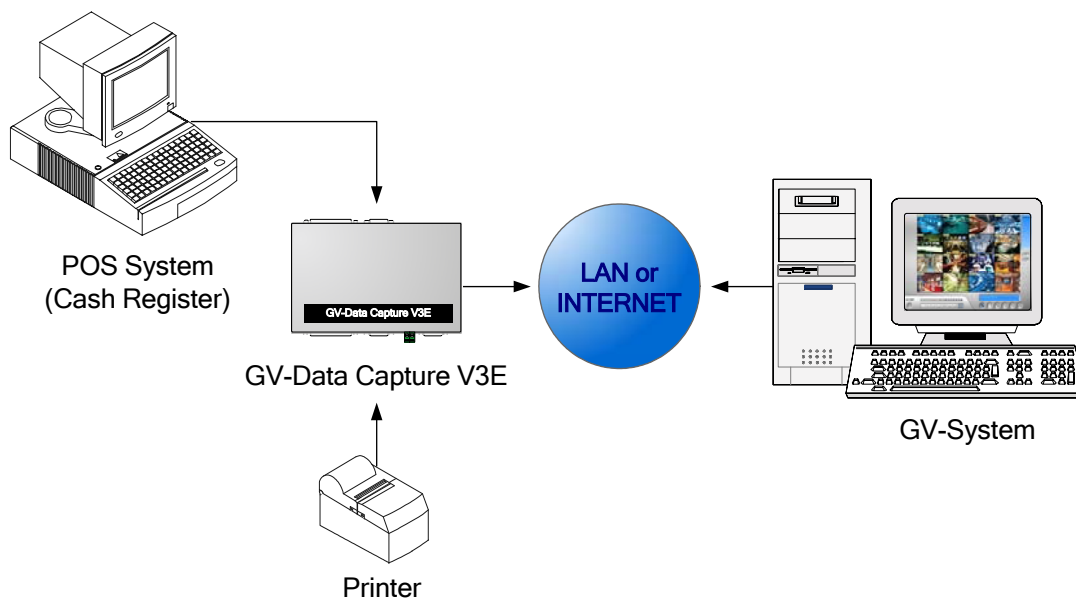


Figure 3

Note: For connections among the POS system, printer and GV-Data Capture V3E, see another documentation at

<http://www.geovision.com.tw/english/faq/GV-DataCaputreV2.pdf>

After wiring work is complete, configure the GV-Data Capture V3E to match your network requirements:

1. Open an Internet browser, and type the web address: <http://192.168.0.100> . This dialog box appears.



Figure 4

2. In the User Name and Password fields, type default value **admin** and **1234** respectively, and then click **OK**. This page appears.

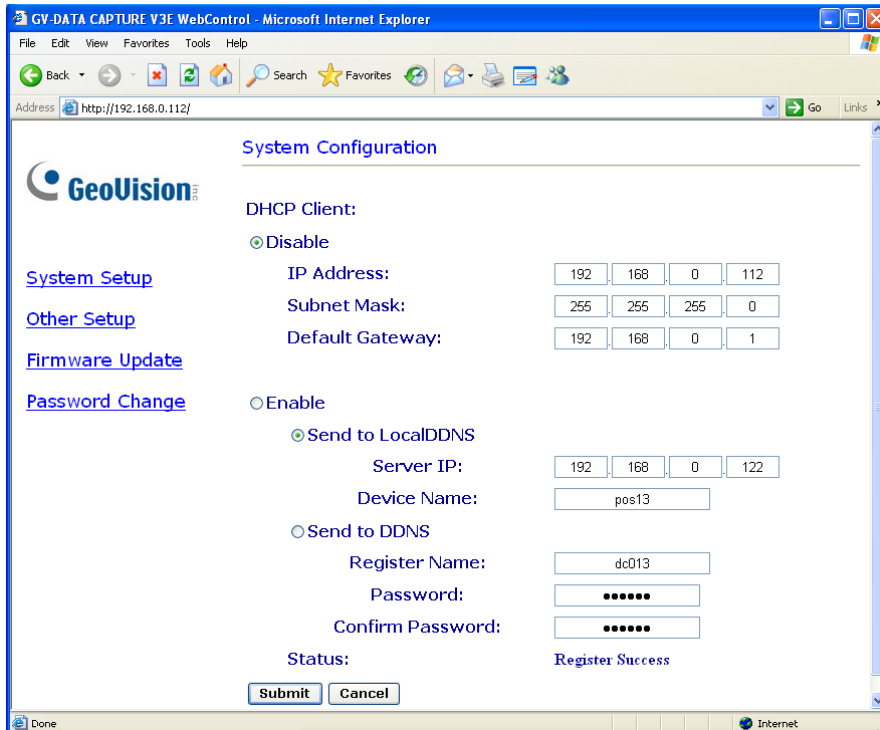


Figure 5 換圖

Note: User Name is fixed, but Password is changeable. See 5.3 *Changing Password*.

3. Click **Disable**. Type the static IP address information, including IP Address, Subnet Mask and Default Gateway.
4. Click **Submit**. When the connection is established, the Status field indicates: *Register Success*.

3.2 DHCP

If your POS system is using a dynamic IP address, you need to keep the ever-changing IP address being linked to the device name. You can choose to make the connection over the LAN or Internet.

3.2.1 Connection over LAN

The GV-developed “LocalDDNS Server” can map a device name to your POS system’s varying IP address, by which GV-System can access your POS system by the device name.

The Local DDNS Server can be installed in either GV-System or a separate computer. The wiring of the LocalDDNS application is illustrated as below.

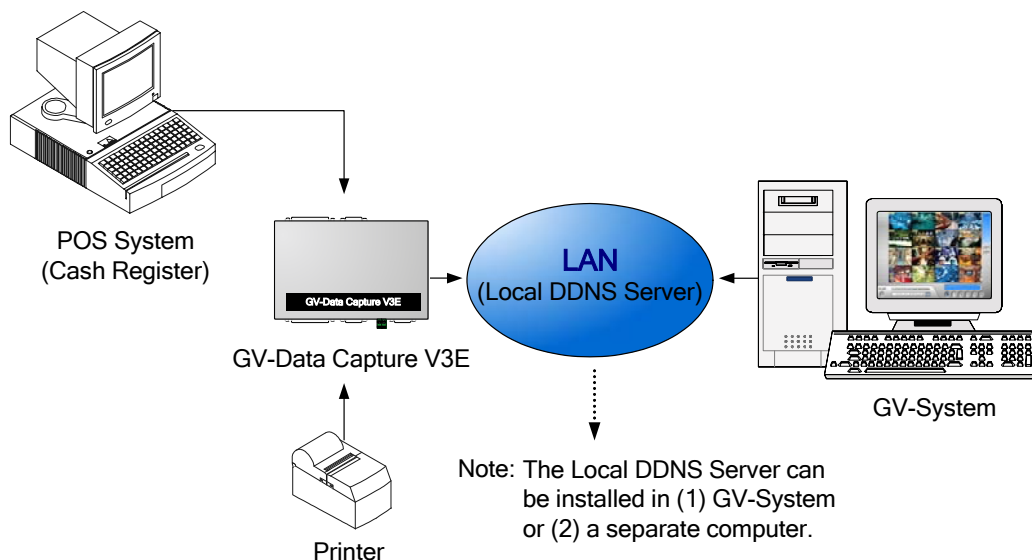


Figure 5

Note: For connections among the POS system, printer and GV-Data Capture V3E, see another documentation at:

<http://www.geovision.com.tw/english/faq/GV-DataCaptureV2.pdf>

Installing LocalDDNS Server

1. Insert the Surveillance System Software CD to your computer. It will run automatically and pop up a window.
2. Select **Install GeoVision V 8.1.0.0 System (確認版本?)**
3. Select **LocalDDNS Server**, and then follow on-screen instructions.
4. Run **LocalDDNS.exe**.

The program will be minimized to the system tray.



Configuring V3E for the Connection over LAN

After running LocalDDNS Server, configure the GV-Data Capture V3E to match your network requirements:

1. Open an Internet browser, and type the web address: <http://192.168.0.100>
The dialog box (see *Figure 4*) appears.
2. In the User Name and Password fields, type default value **admin** and **1234** respectively, and then click **OK**. The GV-Data Capture V3E WebControl page (see *Figure 5*) appears.

Note: User Name is fixed, but Password is changeable. See *5.3 Changing Password*.

3. Click **Enable**, and then type the information of **Device Name** and **Local DDNS IP**.

 A screenshot of a configuration dialog box. At the top, there is a radio button labeled 'Enable' which is selected. Below it is another radio button labeled 'Send to LocalDDNS' which is also selected. Underneath, there are two input fields. The first is labeled 'Server IP:' and contains four text boxes with the values '192', '168', '0', and '122'. The second is labeled 'Device Name:' and contains a text box with the value 'pos13'.

Figure 6

Note: The default value of the device name is **pos**. If more than one POS system is connected to the GV-System, assign each device a different name.

4. Click **Submit** to upload the information to the LocalDDNS Server.
When the connection is established, the Status field indicates: *Register Success*.

3.2.2 Connection over Internet

For the connection over the Internet, you need to map a domain name to your POS system's varying IP address as well. Using the GV-Dynamic DNS program enables you to obtain a domain name for your POS system.

Registering A DDNS Domain Name

To obtain a domain name from the GV-Dynamic DNS program, follow these steps:

1. Open an Internet browser, and type the web address <http://ns.dipmap.com/register.aspx> . This page appears.

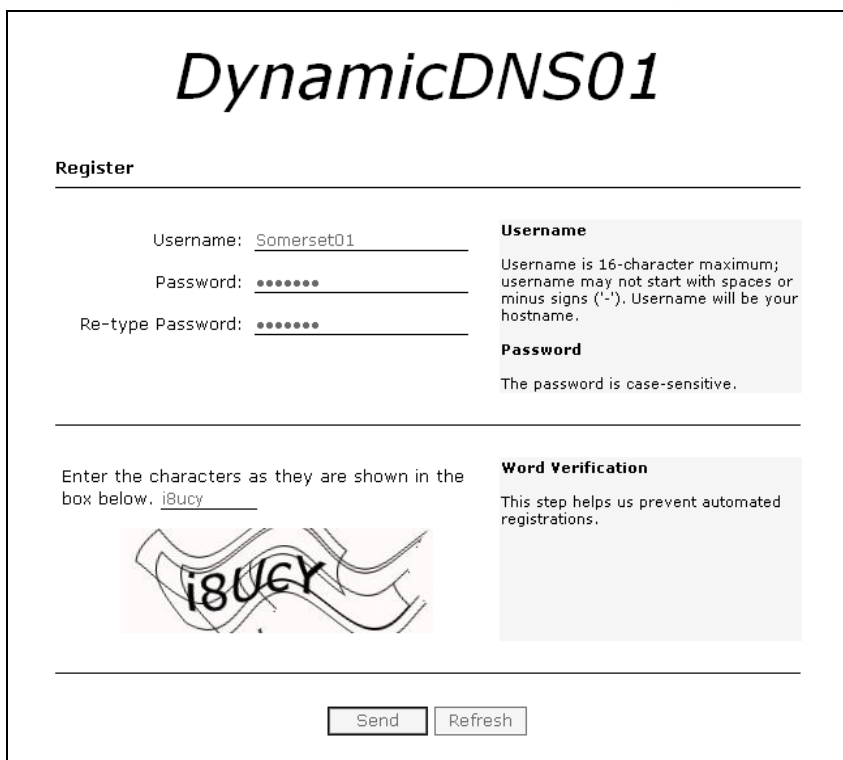


Figure 7

2. In the Username field, type a name. Username can be up to 16 characters with the choices of “a ~ z”, “0 ~9”, and “-”. Note that space or “-” cannot be used as the first character.
3. In the Password field, type a password in the Password field. Passwords are case-sensitive and must be at least 6 characters. Type the password again in the Re-type Password field for confirmation.
4. In the Word Verification section, type the characters or numbers shown in the box. In the example, type uAk5 in the required field. Word Verification is not case-sensitive.
5. Click the **Send** button. If the registration is complete, the following window appears:

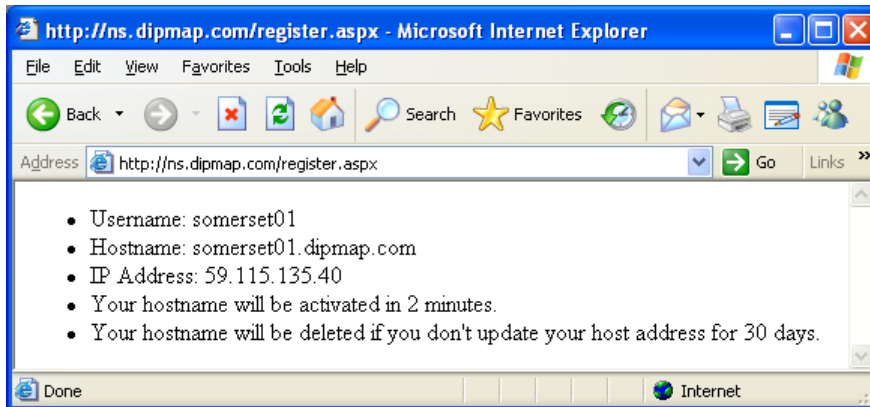


Figure 8

For details, see “Using Dynamic DNS”, Chapter 13, *User’s Manual* on the Surveillance System Software CD.

Note:

1. If you do not use the registered name for two months, the registered name will be invalid. (這個期限有可能再變動, 須確認)
 2. Do not use the names registered at the other Dynamic DNS service programs. Only the registered name at the GV-Dynamic DNS program works.
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Configuring V3E for the Connection over Internet

1. Follow the Steps 1 and 2 in 3.1 *Fixed IP* above. The GV-Data Capture V3E WebControl page (see *Figure 5*) appears.
2. Click **Enable**, select **Send to DDNS**, and type the information of **Register Name**, **Password** and **Confirm Password**. For the Register Name, type the name you register at DDNS.

<input checked="" type="radio"/> Enable	
<input type="radio"/> Send to LocalDDNS	
Server IP:	192 168 0 122
Device Name:	pos13
<input checked="" type="radio"/> Send to DDNS	
Register Name:	dc013
Password:	••••••
Confirm Password:	••••••

Figure 9

3. Click **Submit** to upload the information. When the connection is established, the Status field indicates: *Register Success*.

4. Configuring GV-System

After configuring the GV-Data Capture V3E, you have to set the GV-System to match your POS system's network as well.

4.1 Fixed IP

To set the GV-System for a static IP address network:

1. Click the **Configure** button on the main screen, point to **POS Application Setting**, and then select **POS Device Setup**. The POS Server Setup dialog box appears.
2. Click the **New** tab. This dialog box appears.

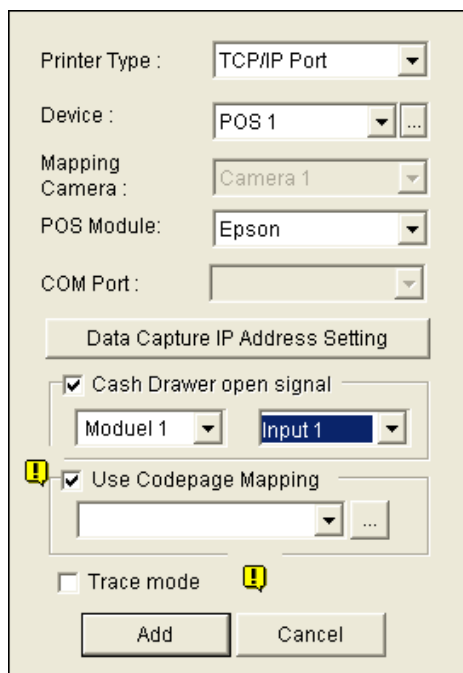


Figure 10

- **Printer Type:** Select **TCP/IP Port** from the drop-down list.
- **Device:** Assign the POS system to a channel. POS 1 displays images and data on the channel 1, POS 2 on the channel 2, and so on. Click the [...] button next to the item to rename the device.
- **POS Module:** Select the printer connected to the POS system. If it's not Epson, select **General** for other brands.
- **Cash Drawer Open Signal:** This option is only available when an input module is configured in the Main System. Assign the input module connected

to the cash drawer. Every time when the cash drawer is open, it will be recorded in System Log for later retrieval.

- **Use Codepage Mapping:** This option is to support special character and symbol display. For details, see *Codepage Mapping, Chapter 3, User's Manual* on the Surveillance System Software CD.
- **Trace Mode:** Check this option only after getting the recommendation from our technical support staff.

3. Click the **Data Capture IP Address Setting** tab. This dialog box appears.

The screenshot shows a dialog box titled "Data Capture Box IP Setting". It has a blue title bar with a close button. The main area is light beige. At the top, there are three radio buttons: "Fixed IP" (selected and highlighted with a red box), "IP Info. in DDNS Server", and "IP Info. in DVR". Below "Fixed IP" is a text field for "Device IP" containing "192 . 168 . 0 . 100". Below "IP Info. in DDNS Server" is a text field for "Device MAC Address". Below "IP Info. in DVR" is a text field for "Device Name" and a checkbox for "Not Local DVR". Below the checkbox is a text field for "Local DDNS Server IP". A button labeled "Browse Device Setting" is below these fields. At the bottom, there are three text fields: "Device Port" (4000), "Login ID" (admin), and "Password" (****). At the very bottom are "OK" and "Cancel" buttons.

Figure 11 改圖

4. Select **Fixed IP**, and type the IP address of the POS system.
5. In the Device Port field, keep default value **4000**. Or modify it to match that of the POS system (see *Figure 14*).
6. In the Password field, type default value **1234**.
7. If you need to change or view the configurations of GV-Data Capture V3E, click **Browse Device Setting**, and the GV-Data Capture V3E WebControl page (see *Figure 5*) appears.
8. Click **OK** to add the POS system to GV-System.

4.2 DHCP

To set the GV-System for a dynamic IP address network, you can set up over the Internet or LAN.

4.2.1 Connection over Internet

1. Follow the Steps 1 to 3 in 3.1 *Fixed IP*. The Data Capture Box IP Setting dialog box appears

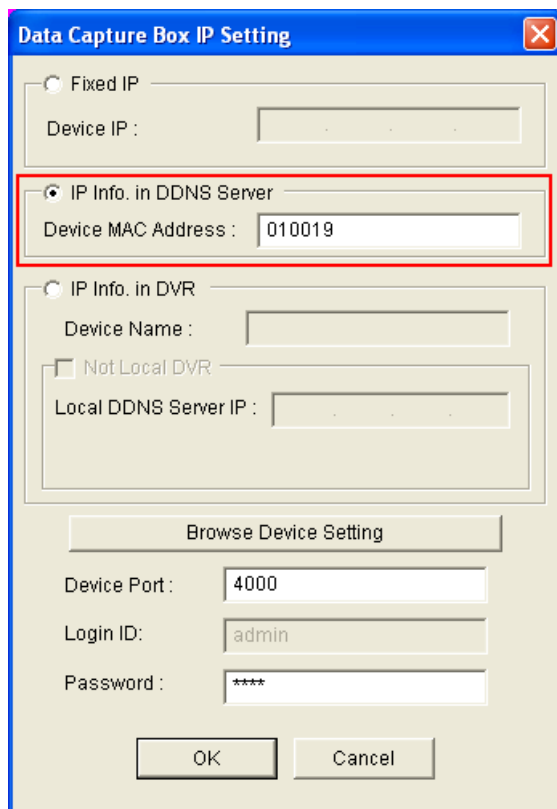


Figure 12 改圖

2. Select **IP Info. in DDNS Server**, and type your DDNS domain name (這個輸入選項“Device MAC Address”可能會更名為“Domain Name” 或“Host Name”).
3. In the Device Port field, keep default value **4000**. Or modify it to match that of the POS system (see Figure 14).
4. In the Password field, type default value **1234**.
5. If you need to change or view the configurations of GV-Data Capture V3E, click **Browse Device Setting**, and the GV-Data Capture V3E WebControl page (see Figure 5) appears.
6. Click **OK** to add the POS system to GV-System.

4.2.2 Connection over LAN

1. Follow Steps 1 to 3 described in 3.1 *Fixed IP*. The Data Capture Box IP Setting dialog box appears

Figure 13 改圖

3. Select **IP Info. in DVR**. If the LocalDDNS Server is installed in the GV-System, type default value **pos**. Or modify it to match that of the POS system (see *Figure 6*).

If the LocalDDNS Server is installed in a separate computer, select **Not Local DVR**, and type its IP address.

4. In the Device Port field, keep default value **4000**. Or modify it to match that of the POS system (see *Figure 14*).
5. In the Password field, type default value **1234**.
6. If you need to change or view the configurations of GV-Data Capture V3E, click **Browse Device Setting**, and the GV-Data Capture V3E WebControl page (see *Figure 5*) appears.
7. Click **OK** to add the POS system to GV-System.

5. Setup and Password

You can execute certain system operations, change login password and view the version information of the firmware.

5.1 System Setup

On the System Configuration page, **click the Other Setup**. This page appears.

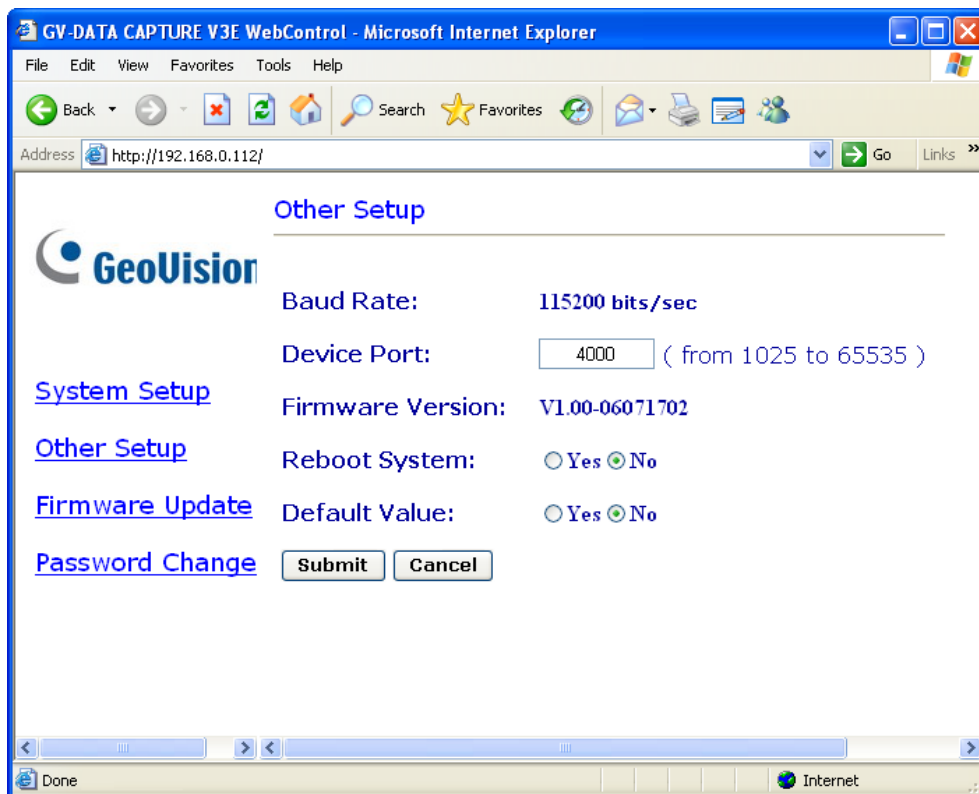


Figure 14

- **Baud Rate:** Displays the baud rate that is set on the GV-Data Capture V3E.
- **Device Port:** Keeps default value **4000**. Or modify it to match that of GV-System. See *Figure 11*.
- **Firmware Version:** Indicates the version of firmware.
- **Reboot System:** Performs a warm boot of the GV-Data Capture V3E. This operation will keep the current configuration.
- **Default Value:** Resets all configuration parameters to their factory settings. This may take 5 seconds to complete.

5.2 Updating Firmware

To update the firmware over the Internet:

1. On the System Configuration page, click **Firmware Update** in the left menu. When this page appears, click **Update**.

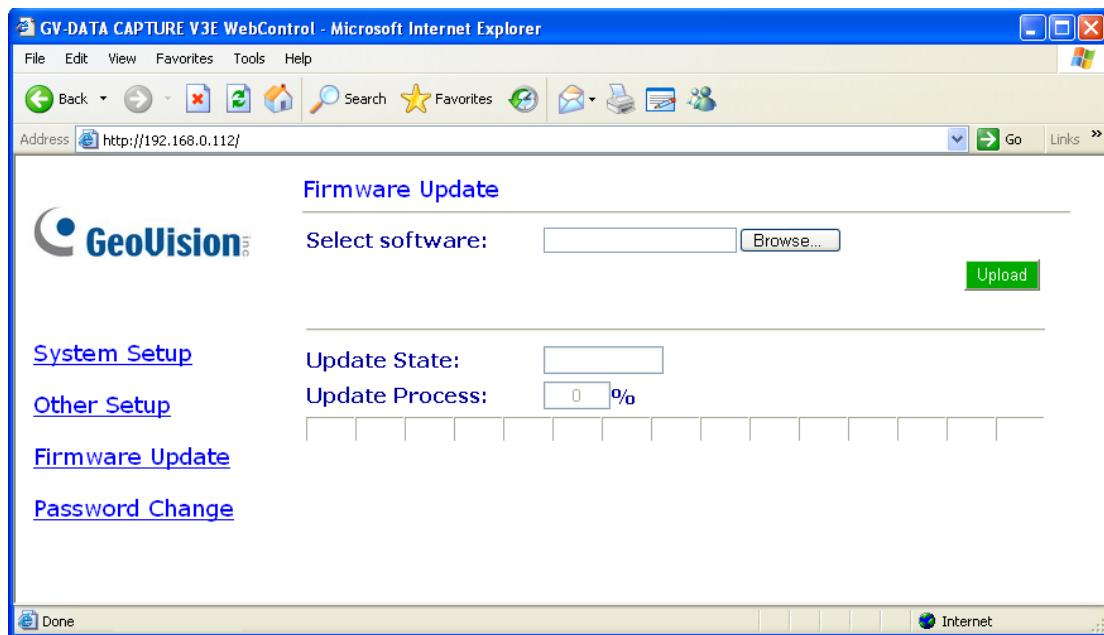


Figure 15 改圖

2. When this Upgrade Firmware page appears, click **Browse** to open the firmware file (*.bin)
3. Click **Upgrade**. This update procedure may take **60 seconds** to complete. (update 所需時間需要再確認)
4. When the Update is complete, a dialog box shows up and asks you to reboot the system. (再確認並補圖)

5.3 Changing Password

To change the login password:

1. On the System Configuration page, click **Password Change** in the left menu.
2. On the Change Password page, type a password of 4 characters with the choices of “a ~ z” and “0 ~ 9”. Note that the password setting is case sensitive.

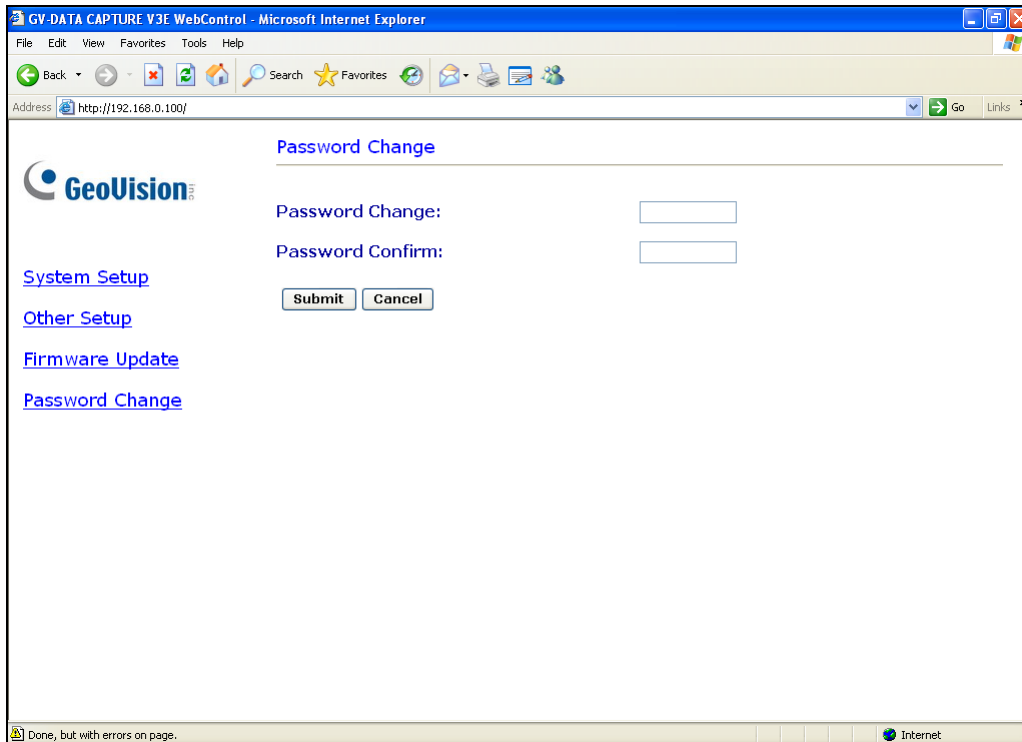


Figure 16

6. Specifications

Specifications		
Input	DB9 Female	RS-232 from POS
	DB25 Female	RS-232 from POS
Output	DB9 Male	RS-232 to Printer
	DB25 Male	RS-232 to Printer
	DB9 Female	RS-232 to DVR
	RJ-45	RJ-45 to DVR
	RS-485+	Connect to GV-NET / GV-Hub/GV-Com RS-485+
	RS-485-	Connect to GV-NET / GV-Hub/GV-Com RS-485-
Communication	RS-232 from POS	1,200 bps~115,200 bps
	RJ-45 to DVR	10 / 100 Mbps
	RS-232 to DVR	1,200 bps~115,200 bps
	RS-485 to GV-NET	1,200 bps~19,200 bps
	RS-485 to GV-Hub / GV-Com	600 bps~115,200 bps
DC IN	Power Adapter DC5V, 2A Inner Positive	
Environmental Conditions	Operation Temperature	0 ~ 50° C
	Humidity	5%~95% (non-condensing)
Dimensions	161 (W) x 34 (H) x 123 (D) mm	

7. Troubleshooting (再確認)

Forgotten password or V3E IP address.

Press the **Reset** button for 5 seconds. All the previous settings will be reset to defaults.

Unable to configure when connecting more than one GV-Data Capture V3E to the same PC during first-time setup.

1. Complete the configuration of a V3E (see 3.1 *Fixed IP* or 3.2 *DHCP*).
2. After the settings are complete, go to Windows **Start**, point to **Programs**, select **Accessories**, and then click **Command Prompt**. This window appears.

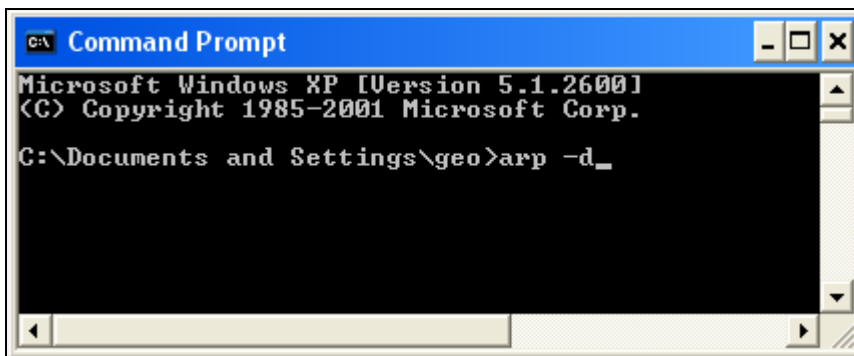


Figure 17

3. In the command line, type **arp -d** to clear ARP cache. This should help you avoid the IP address conflict in the next setup of V3E.
4. Return to the GV-Data Capture V3E WebControl page (see Figure 5) to configure another V3E.
5. Repeat Steps 2 to 4 to complete all setups.

No POS data is transferred to GV-System after the setup is complete.

1. At the GV-System, make sure the IP address, Device Port and password information are correctly typed (see 4. *Configuring GV-System*).
2. Check if the baud rate of GV-Data Capture V3E (see Figure 5) is set the same as those in the POS device and in the GV-System.

Find out the dynamic IP address of your POS system.

There are two ways to find out the dynamic IP address of your POS system:

1. Click the **Browse Device Setting** button;
2. Or you can go to Windows **Start**, click **Run**, type the file name “**enpos.ini**” in the field, and press **OK**.

The “enpos.ini” file appears as shown below, and you will see the IP address of the POS system.

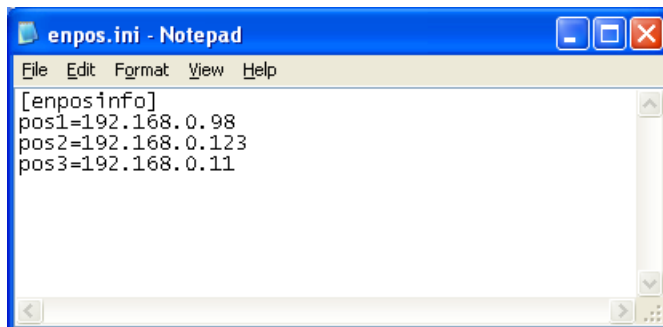


Figure 18