

GV-Data Capture



User's Manual

Table of Contents

Introduction	1
Packing List	1
System Requirements	1
GV-Data Capture	2
POS System Connection	3
Serial POS System	3
Parallel POS System	6
Cash Register Connection	8
Serial Cash Register	8
Parallel Cash Register	9
GV-Net Extension	10
Troubleshooting	10
Displaying errors in transaction data	10
Transaction events don't stop properly	11
Connecting more than 2 POS systems/cash registers	13
The displayed transaction item can't match that entered at the POS system/cash register	14
Specifications	15

Introduction

A POS system may be integrated to a GV-system through the GV-Data Capture box. Through the integration, you can investigate a transaction with transaction data overlaying on a video footage, by either live viewing or playing back.

Packing List

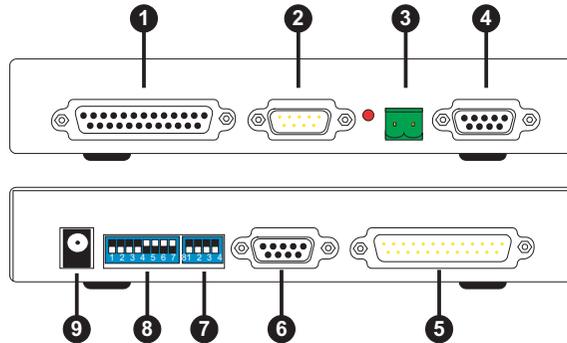
- GV-Data Capture box
- DB9 RS-232 cable (1.8 meters)
- DB9 RS-232 cable (3 meters)
- DB25 parallel cable
- Power Adapter DC 5V
- DB25 Female to DB9 Male (Crossover) No.1
- DB25 Male to DB9 Female (Crossover) No.2
- DB9 Male to DB9 Male (Gender Changer) No.4
- DB9 Female to DB9 Female (Gender Changer) No.5
- DB25 Male Printer Terminator

System Requirements

Version: 6.0.2.0 or above

GV-Data Capture

The GV-Data Capture box is designed to connect a GV-system to a POS system through PC COM ports.



1	25 pins parallel connector	Connects to a parallel printer
2	9 pins D-Sub male connector	Connects to a serial printer
3	2 pins RS-485 connector	Connects to the GV-NET box or GV-NET card
4	9 pins D-Sub RS-232 connector	Connects to a GV-system COM port
5	25 pins parallel connector	Connects to a parallel POS system
6	9 pins D-Sub female connector	Connects to a serial POS system
7	The 4-position baud-rate switch settings are to configure the parallel connection only. If you are using a serial POS system, the settings are not necessary.	
8	The 8-position DIP switch settings are to configure the serial or parallel connection.	
9	5V DC-IN	

Note: The default baud rate is set to 9,600 bps and the default DIP is set for the serial port.

POS System Connection

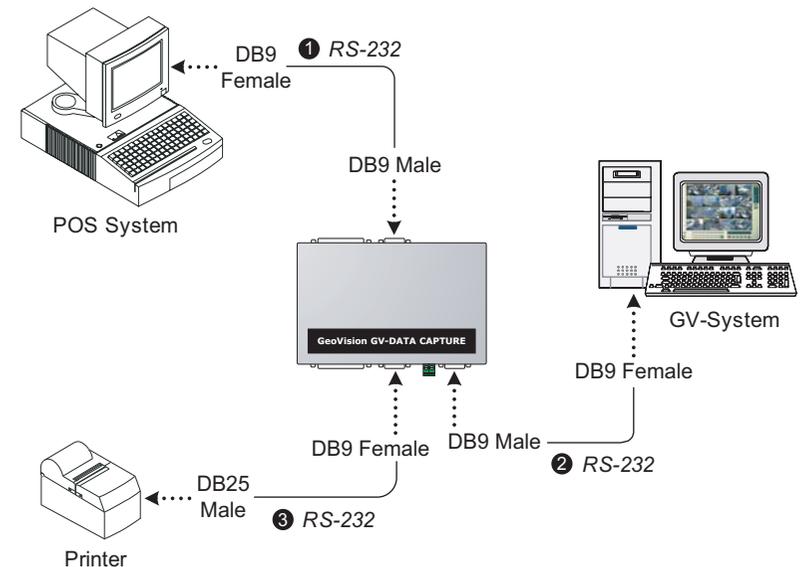
POS systems could come in different forms. In this manual, POS systems are referred to those with receipt printers externally connected. Before configuring, it is important to identify the interface type of your POS system. It must be either serial or parallel.

Serial POS System

Our default settings are set to support serial POS systems, since most of the POS systems available in market are serial. Follow these steps to make the connection:

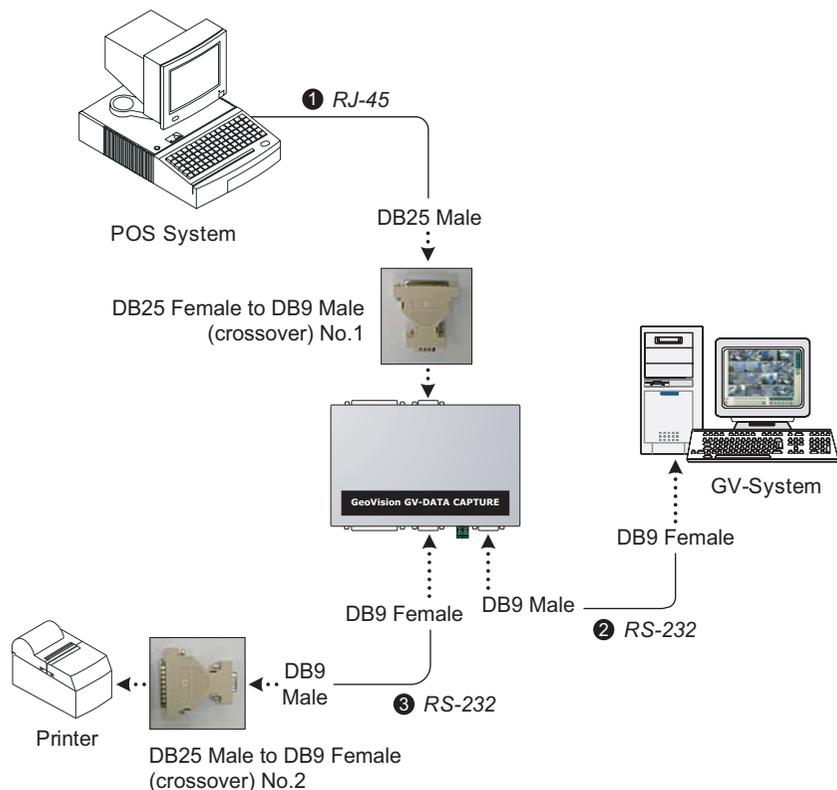
1. Connect the GV-Data Capture box as illustrated below:

► POS System Using a DB9-D25 Cable



- The RS-232 cables ① ② supplied with the GV-Data Capture box.
- The RS-232 cable ③ supplied with the POS system.

► **POS System Using a RJ45-DB25 Cable**



- The RJ-45 cable ① supplied with the POS system.
- The RS-232 cables ② ③ and converter No.1/No.2 supplied with the GV-Data Capture box.

2. Run the GV-system.

3. Click the **Configure** button, point to **POS Application Setting**, and select **POS Device Setup**. This displays the POS Server Setup dialog box.

4. Click the **New** button. This displays the following COM setting dialog box.

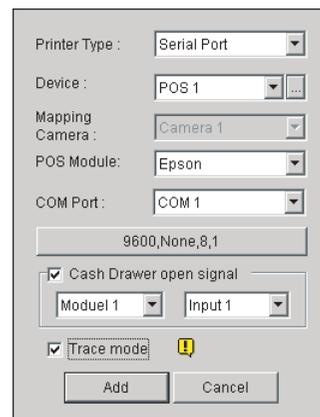


Figure 1. Serial POS System settings

- **Printer Type:** Select **Serial Port** for this application.
- **Device:** Assign the POS system to a camera channel. POS 1 displays the images and data on the Camera 1 channel; POS 2 on the Camera 2 channel, and so on. Click the button [...] next to the item to rename the device.
- **POS Module:** Select the printer attached to the POS system. If it's not Epson, select **General** for other brands.
- **COM Port:** Select the COM port connected to the POS system.
- **The parameter button:** Click this button to configure the following parameters or keep them as defaults.
 - Baud Rate: Select the baud rate corresponding to that of the POS system.
 - Data Bits: Select the data bit corresponding that of the printer.
 - Parity: Select None for the serial POS system.
 - Stop Bits: Select the stop bit corresponding to that of the printer.
- **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.

- **Trace Mode:** Check this option only after getting the recommendation from our technical support staff.

5. After above settings, click **Add** to add the POS system to the GV-system.

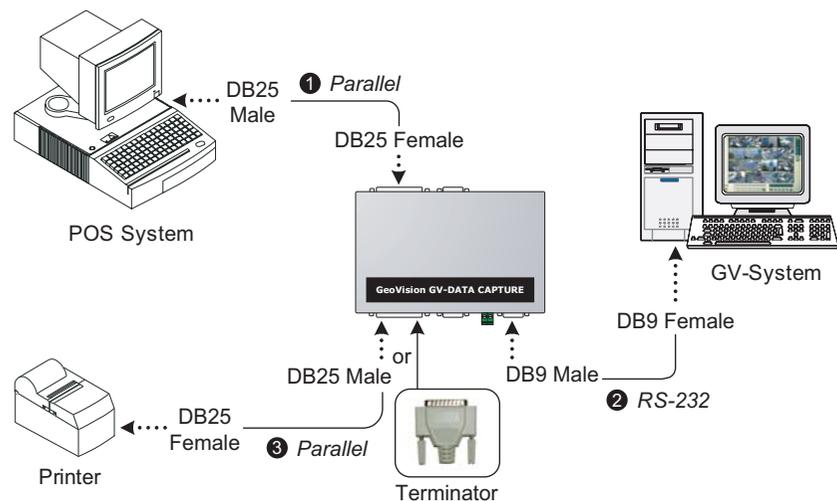
Parallel POS System

The two precautions taken when connecting the parallel POS system will help ensure trouble-free operation.

- Make sure to connect a receipt printer or a terminator to the Capture box (See the illustration below), or the GV-system cannot receive any transaction data.
- Make sure to restart your POS system after connecting the Capture box.

Follow these steps to make the connection:

1. Connect the GV-Data Capture box as illustrated below:



- The Parallel cable ①, the RS-232 cable ②, and Terminator supplied with the GV-Data Capture box.
- The Parallel cable ③ supplied with the POS system.

2. Run the GV-system.

3. Click the **Configure** button, point to **POS Application Setting**, and select **POS Device Setup**. This displays the POS Server Setup dialog box.

4. All settings are the same as previously discussed in the *Serial POS System* section, except that for **Printer Type** and **Baud Rate**.

- A. Select **Parallel Port** in the Printer Type field.
- B. Clicking the parameter button, you will find only the Baud Rate item is available. Keep it in default.

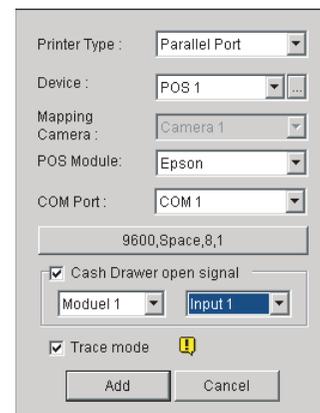


Figure 2. Parallel POS System settings

5. Click **Add** to apply the settings.

6. Adjust the DIP switch settings in the Capture box from Serial Port to Parallel Port, as illustrated below:



Parallel Port Serial Port (default)

Cash Register Connection

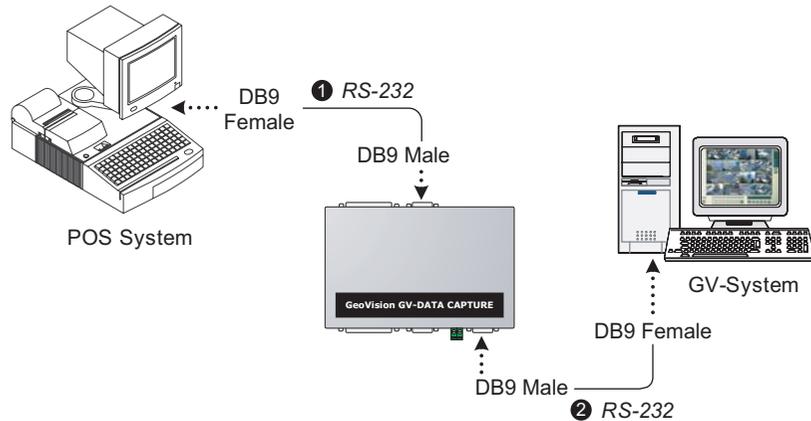
In this manual, cash registers refer to those with receipt printers internally connected. Cash registers may not be integrated to GV-systems, unless with the following characteristics. Please check these characteristics before actually connecting your cash register to the GV-system.

- Check if your cash register has an output port for a printer.
- Connect a receipt printer to the output port and see if it functions well. If it does, the integration is then possible.

Note: If you see errors in printing (e.g. drop caps, character display errors), you may encounter the same display problems when the GV-system overlays data on the transaction scene.

Serial Cash Register

1. Connect the GV-Data Capture box as illustrated below:



- The RS-232 cables ① ② supplied with the GV-Data Capture box.

2. Follow the same settings as previously described in the *Serial POS system* section.

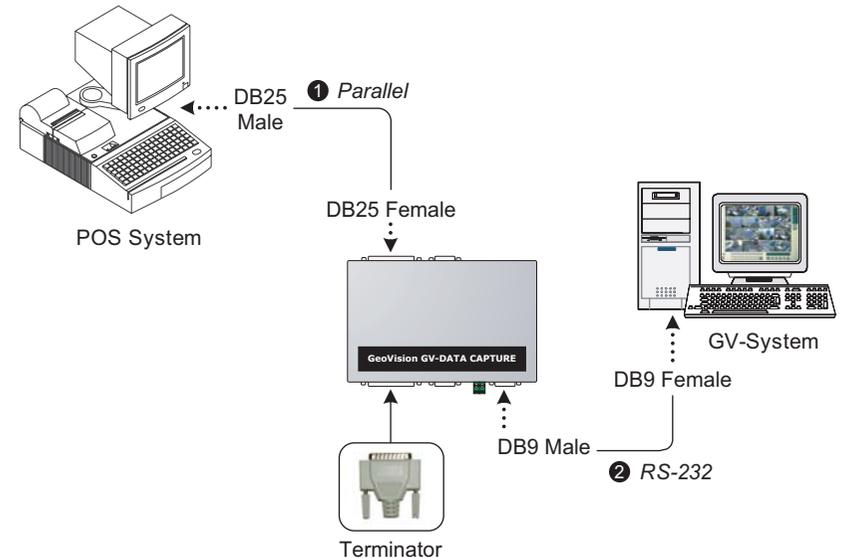
Parallel Cash Register

The two precautions taken when connecting the parallel cash register will help ensure trouble-free operation.

- Make sure to connect a receipt printer or a terminator to the Capture box (See the illustration below), or the GV-system cannot receive any transaction data.
- Make sure to restart your POS system after connecting the Capture box.

Follow these steps to make the connection:

1. Connect the GV-Data Capture box as illustrated below:

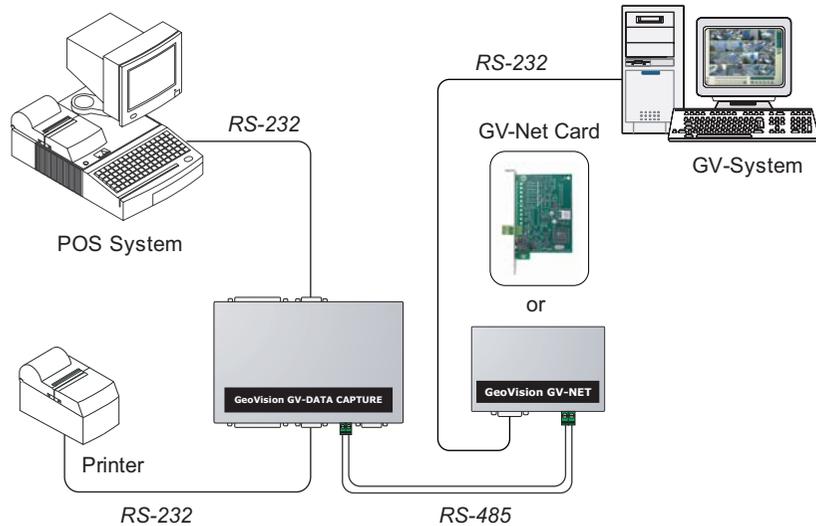


- The Parallel cable ①, the RS-232 cable ② and Terminator supplied with the GV-Data Capture box.

2. Follow the same settings as previously described in the *Parallel POS system* section.

GV-Net Extension

The previous illustrations assume that the physical distance between the POS system and GV-system is within 10 meters (32 ft.). If the distance between the two devices is longer than 10 meters, the GV-NET box or card (a RS-232/RS-485 interface converter) is required in the connection. You can connect the GV-Data Capture and GV-NET boxes as illustrated below:



Troubleshooting

■ Displaying errors in transaction data

Display errors may include garbage text, drop caps, and malfunction in printing.

1. If your POS system or the receipt printer of your cash register is not supported by Epson, select **General** in the POS Module field.
2. Make sure your POS system/cash register is using the same language with the operating system in the GV-system.

If none of the above fit your condition, send us the following information. We will analyze your case and offer you a possible solution.

- The txt file created by HyperTerminal. For more information about HyperTerminal, see another documentation: *The Printing Mode of POS System/Cash Register* (http://www.geovision.com.tw/002/en/faq/pos/pdf/The_printing_mode_of_POS_system_cash_register.pdf)
- One copy of the transaction receipt. See Fig. 4.
- A desired file name that will be used as a POS Module name. See Fig. 5.
- The POS system/cash register type and model.
- The printer type and model.

■ Transaction events don't stop properly

This problem happens when the GV-system can't identify specific commands from your POS system/cash register.

To solve this problem, download the program **TranStopEdit.exe** at the link <http://geo-support.dipmap.com:100/POS/TranStopEdit.exe> to the system folder. Execute the program to display the TranStopEdit window:

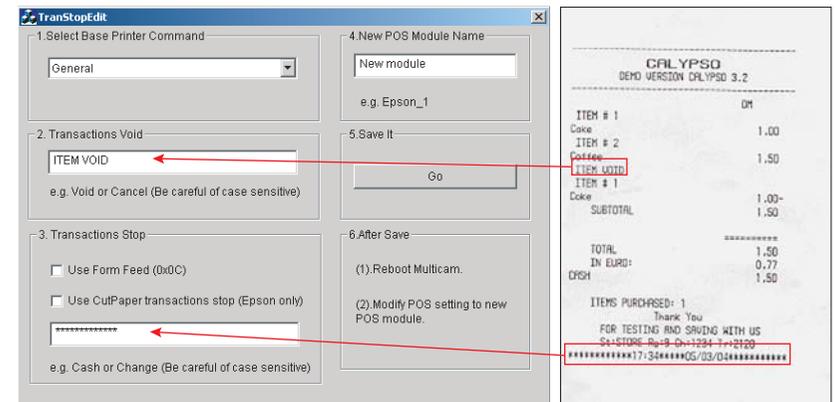


Figure 3. The TranStopEdit window



Figure 4. Receipt copy

1. In the Select Base Printer Command field, select the printer command used by your POS system or cash register.
2. In the Transaction Void field, enter the exact transaction text used to identify "void". For this example, look at the receipt and we find the exact text is ITEM VOID.
3. In the Transaction Stop field, enter the stop command used by your printer. If your printer does not support the Form Feed or CutPaper command, enter the exact transaction text used to identify "stop". For this example, *****17:34***05/03/04***** indicates the transaction stop. However, since the time and date varies with each transaction, only enter ***** as the stop command.
4. In the New POS Module Name field, enter a module name for the new settings.
5. Click **Go** to apply all settings.
6. Run POS Server Setup. (GV-system/Configure/POS Application Setting/POS Device Setup)
7. Click the **New** button in the POS Server Setup window.
8. In the POS Module drop-down list, select the POS module you created in TranStopEdit.

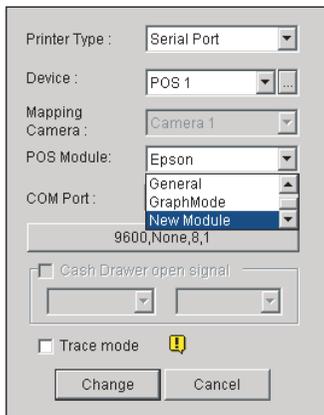
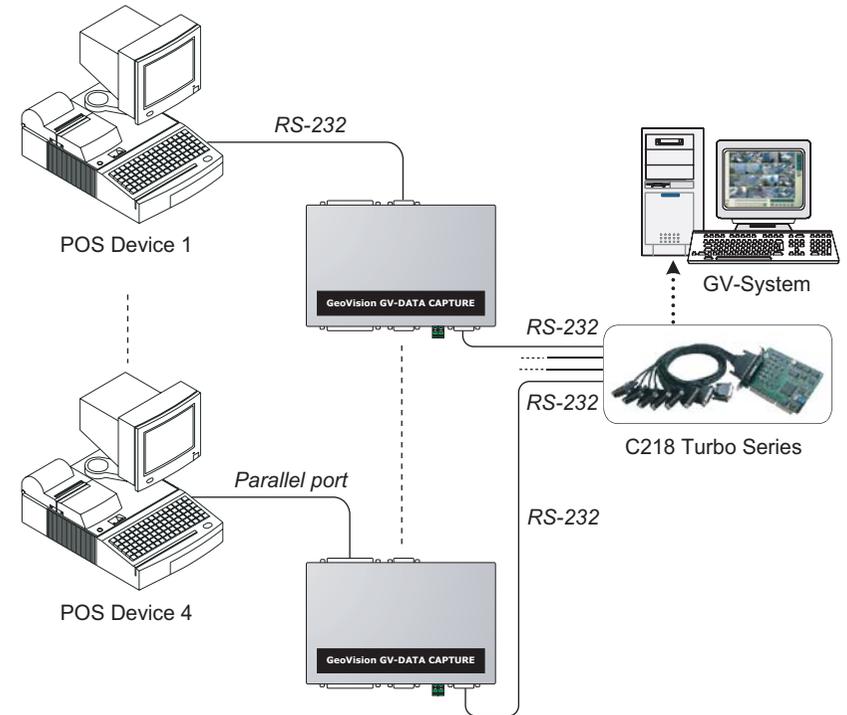


Figure 5. Selecting the created POS module

9. Click **Add**, and test this setting.

■ **Connecting more than 2 POS systems/cash registers**

Normally, one PC comes with 2 COM ports, therefore only 2 POS systems/cash registers may be supported without COM port extension. The extension is made possible by adding **Moxa** extension modules, such as N Port 1240, C218 Turbo Series, Industrio CP-114 Series and C320 Turbo Multiport. The following diagram illustrates how a Turbo Series card can be connected with one GV-system and four POS systems.



■ **The displayed transaction item can't match that entered at the POS system/cash register**

1. Run POS Server Setup. (GV-system/Configure/POS Application Setting/POS Device Setup)
2. Click the **New** button in the POS Server Setup window.
3. Select **Epson** in the POS Module field.
4. Click **Add**, and test the setting.

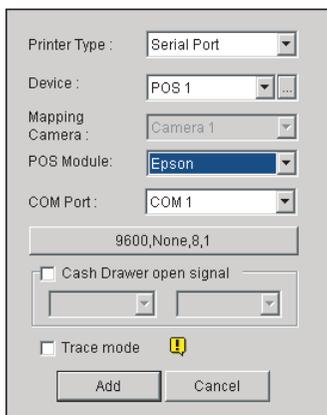


Figure 6. Selecting Epson in the POS Module field

If the above setting doesn't work, send us the following information. We will analyze your case and offer you a possible solution.

- The txt file created by HyperTerminal. For more information about HyperTerminal, see another documentation: *The Printing Mode of POS System/Cash Register* (http://www.geovision.com.tw/002/en/faq/pos/pdf/The_printing_mode_of_POS_system_cash_register.pdf)
- One copy of the transaction receipt. See Fig. 4.
- A desired file name that will be used as a POS module name. See Fig. 5.

- The POS system/cash register type and model.
- The printer type and model.

Specifications

Input	RS-232 from POS	DB9 Female
	Parallel Port from POS	DB25 Male
Output	RS-232 to Printer	DB9 Male
	Parallel Port to Printer	DB25 Female
	RS-232 Port to DVR	DB9 Female
	RS-485+	Connect to GV-NET RS-485+
	RS-485-	Connect to GV-NET RS-485-
Communication	RS-232 from POS	1,200 bps~115,200 bps
	Parallel Port from POS	SPP / Normal
	RS-232 to DVR	1,200 bps~115,200 bps
	RS-485 to GV-NET or GV-NET Card	1,200 bps~19,200 bps
DC IN	Power Adapter DC 5V, 2A Inner Positive	
Environmental Conditions	Operation temperature	0~50 degree C
	Humidity	5%~95% (non-condensing)
Dimensions	161 (W) x 34 (H) x 123 (D) mm	