GV-I/O Box 8 Ports

The GV-I/O Box 8 Ports provides 8 inputs and 8 relay outputs, and supports both DC and AC output voltages.

Key Features

- 8 inputs and 8 outputs are provided.
- Up to 9 pieces of GV-I/O Box 8 Ports can be chained together.
- A USB port is provided for PC connection, and it is only used for 30 DC output voltage.

System Requirements

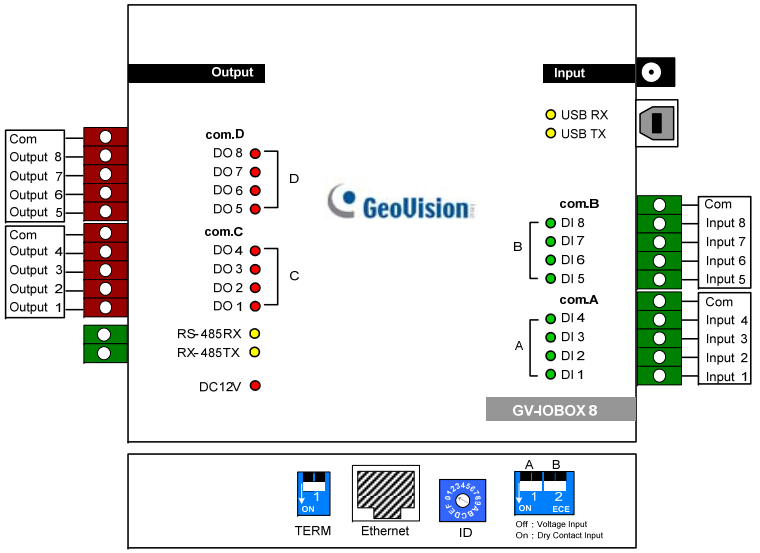
- GV-System version 8.2 or above

Packing List

1. GV-I/O Box 8 Ports x 1
2. USB Cable (Type A to B) x 1
3. Power Adapter DC 12V x 1
4. Installation Guide x 1

Note: The GV-I/O box 8 Ports comes with the option of an Ethernet module. See *Accessing GV-I/O Box over Networks, Chapter 2, Installation Guide on* the Surveillance System Software DVD.

Overview



DIP Switch

The GV-I/O Box 8 Ports allows the use of mixing dry and wet contact devices together. The 8 inputs divided as four-in-one groups (A and B) are related to the 2 switches on the box for dry and wet contact.

Wet Contact

To change the inputs to different kind of contact, push the switch upward.

Dry Contact

To change the inputs to different kind of contact, push the switch downward.

Note:

1. The RS-485 connectors do not have the conversion function from RS-485 to RS-232, so don't connect RS-485 devices, such as PTZ camera, to the connectors.
2. To add a GV-I/O Box 8 Ports to the GV-System of version 8.2, select **GVIO-USB (16)** from the Device drop-down list in the System Configure dialog box.

Connections

There are three ways to connect a GV-I/O Box 8 Ports to the PC:

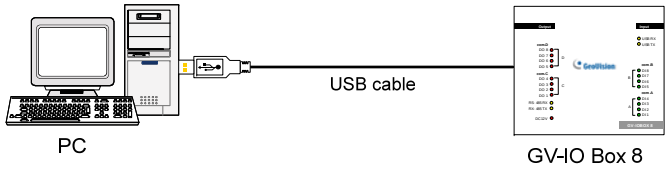
(1) Use the USB cable to connect the PC.

(2) Through the option of GV-Hub, GV-COM, GV-NET Card or GV-NET/IO Card, use the RS-485 connectors to connect the PC.

(3) Through network connection that is an optional function. See *Accessing GV-I/O Box over Networks*, *Chapter 2*, *Installation Guide* on the Surveillance System Software DVD.

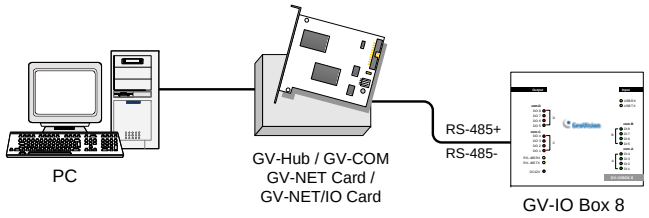
Note: Only one of the three methods can be used one time. If your GV-I/O Box has network connectivity, ensure to unplug the network cable before switching the connection to USB or RS-485. See [Connection to IO BOX] in *Other Setting*, *Chapter 2*, *Installation Guide* on the Surveillance System Software DVD.

1. Use the USB cable to connect one GV-I/O Box 8 Ports to the PC. **(Allowed for DC Output Voltage only)**



Note: It is required to install the USB driver. See *Installing USB Driver* later in this Installation Guide.

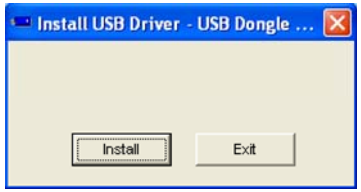
2. Use the RS-485 connectors to connect one GV-I/O Box 8 Ports with the PC. **(Allowed for AC/DC Output Voltage)**



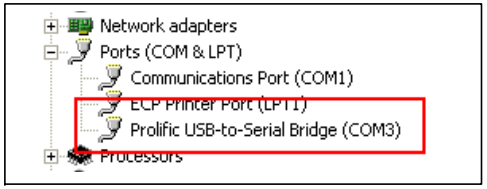
Installing USB Driver

To use the USB function, it is required to install the driver on the PC. Follow these steps to install the driver:

1. Insert the software CD. It will run automatically and pop up a window.
2. Select **Install or Remove GeoVision GV-Series Driver**, and then click **Install GeoVision USB Devices Driver**. This dialog box appears.

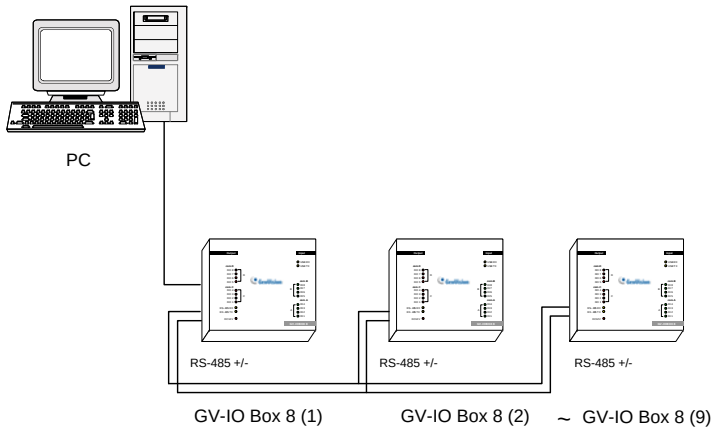


3. Click **Install** to install the drivers. When the installation is complete, this message will appear: *Install done!*
4. Click **Exit** to close the dialog box.
5. To verify the drivers are installed correctly, go to **Device Manager**. Expanding the **Ports** field, you should see one entry for Prolific USB-to-Serial Bridge.



Assigning Addresses to GV-I/O Box 8 Ports

Up to 9 pieces of GV-I/O Box 8 Ports can be chained together to expand the I/O capacity. Use the ID switch (1~9) to assign addresses 1~9 to the connected pieces of GV-I/O Box 8 Ports.



ID Switch

ID

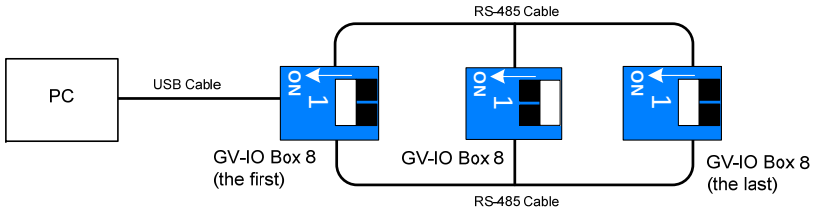
1. Addresses 0 and A to F are NOT functional.
2. Assign the addresses when the power is off.
3. If you want to change the assigned address of the connected GV-I/O Box 8 Ports, set the switch to the new address, and then re-plug the power adaptor.

Extending Transmission over the Distance

When the transmission signals between the RS-485 communications become weak over the distance, switch on the Terminal Resistance Switches to maintain the signals. Three conditions below illustrate how the Terminal Resistance Switches should be switched on.

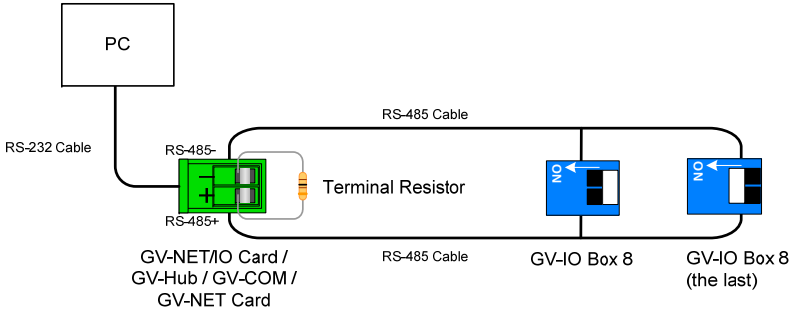
1. **Multiple pieces of GV-I/O Box 8 Ports are connected with the PC through one single RS-485 cable.**

   After you connect multiple pieces of GV-I/O Box 8 Ports with the PC, only switch on the Terminal Resistance Switches in the first and last connected pieces of GV-I/O Box 8 Ports.



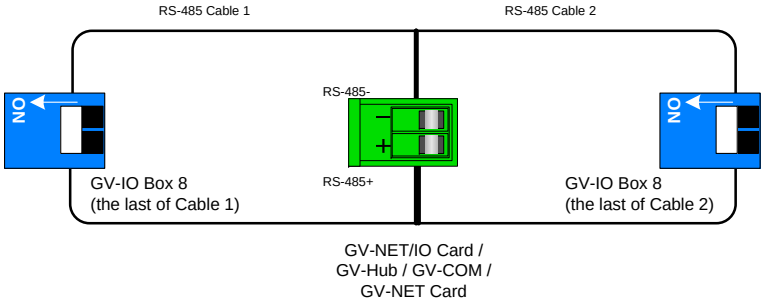
2. **Multiple pieces of GV-I/O Box 8 Ports are connected with the PC through a RS-485 / RS-232 conversion device.**

   After you connect multiple pieces of GV-I/O Box 8 Ports with the PC through a RS-485 / RS-232 conversion device, such as GV-NET/IO Card and GV-Hub, insert a Terminal Resistor in the conversion device and switch on the Terminal Resistance Switch of the last connected GV-I/O Box 8 Ports.



3. **Multiple pieces of GV-I/O Box 8 Ports are connected with the PC through separate RS-485 cables.**

After you connect multiple pieces of GV-I/O Box 8 Ports with the PC through separate RS-485 cables, switch on Terminal Resistance Switches of the connected piece of GV-I/O Box 8 Ports at the end of each cable.



Terminal Resistance Switch

The default setting of the Switch is OFF. To switch on the Terminal Resistance Switch, push the switch downward.

Specifications

Input	Input	8	
	Input Signal	Dry Contact	
		Wet Contact, 9-30V AC/DC	
Output	Relay Output	8	
	Relay Status	Normal Open	
	Relay Capacitance	USB Connection	30V DC, 3A
		RS-485 Connection	125 / 250V AC, 3A 30V DC, 3A
Ethernet	RJ-45, 10/100 Mbps (Optional)		
DC IN	DC 12V, 1A		
Address	0-9, A-F		
Terminal Resistance	120Ω		
Environmental Condition	0~50 Degree C / 32~122 Degree F 5%~95% (Non-Condensing)		
Dimensions (W x H x D)	135 x 28 x 145 (mm) / 5.31 x 1.10 x 5.70 (in)		
Note: The product does not support 64-bit Windows versions currently.			

Ordering Information

84-IOB08-100