

# GV-I/O USB Box

The GV-I/O USB Box provides 16 inputs and 16 relay outputs. It supports both DC and AC output voltages, and provides a USB port as well.

## Key Features

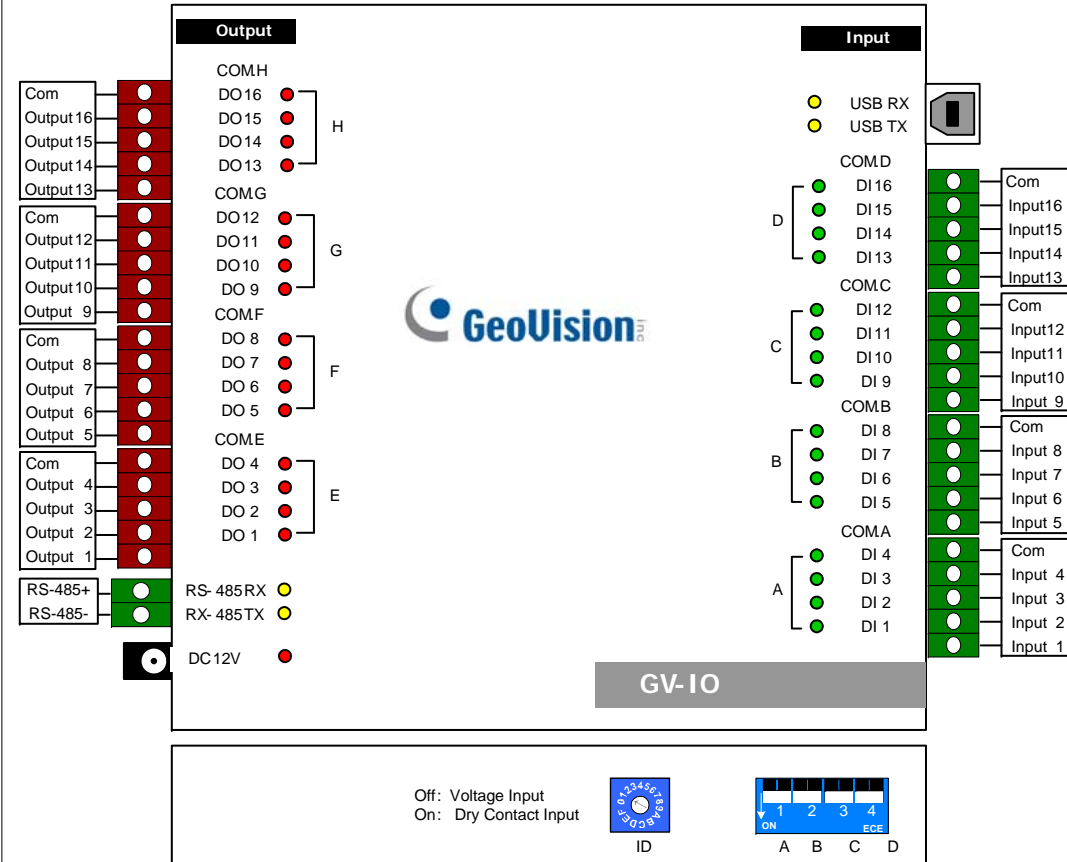
- It is a combination of both GV-I/O Box and GV-Relay Box.
- 16 inputs and 16 outputs are provided. See *Important Notice* for details.
- A USB port is provided for PC connection, and it is used for 30 DC output voltage.
- Up to 9 GV-I/O USB Boxes can be chained together. See *Important Notice* for details.

## Packing List

- GV-I/O USB Box x 1
- Terminal Resistor x 1
- Power Adaptor DC 12V x 1
- Installation Guide x 1
- USB Cable (Type A to Type B) x 1

## Specifications

Input	Input	16	
	Input Signal	Dry Contact Wet Contact, 9-30V AC/DC	
Output	Relay Output	16	
	Relay Status	Normal Open	
	Relay Capacitance	USB Connection	30V DC, 3A
		RS-485 Connection	125 / 250V AC, 3A 30V DC, 3A
DC IN	DC 12V, 1A		
Address	1-15		
Environmental Conditions	0~50°C / 32~122°F, 5%~95% (non-condensing)		
Dimensions	180 (W) x 27 (H) x 183 (D) mm / 7.09 x 1.06 x 7.20 (in)		



### Important Notice:

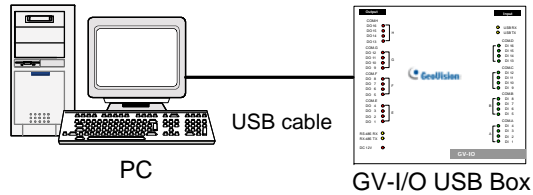
- Running with the GV-System earlier than V8.2, the GV-I/O USB Box only supports 8 inputs and 16 outputs. Up to 9 GV-I/O USB Boxes can be chained together.
- Running with the GV-System V8.2 and later, the GV-I/O USB Box can support 16 inputs and 16 outputs. Up to 9 GV-I/O USB Boxes can be chained together.

## Connections to PC

There are two ways to connect the GV-I/O USB Box to PC:

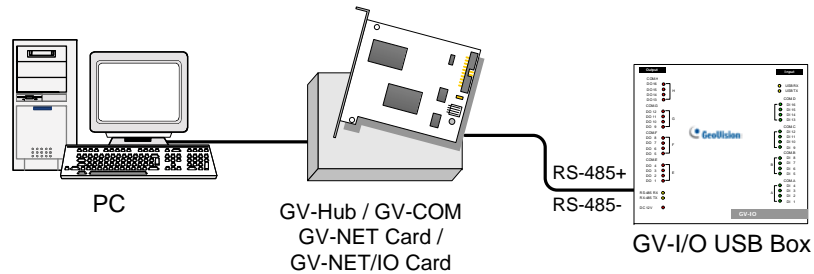
- (1) Use the USB cable to connect to the PC, and
- (2) Through the option of GV-Hub, GV-COM, GV-NET Card or GV-NET/IO Card, use the RS-485 connectors to connect to the PC.

### 1. Connecting to PC with the USB cable (Allowed for DC Output Voltage only)



**NOTE:** To use this function, it is required to install the USB driver. For the driver installation, see *USB Driver Installation* later in this document.

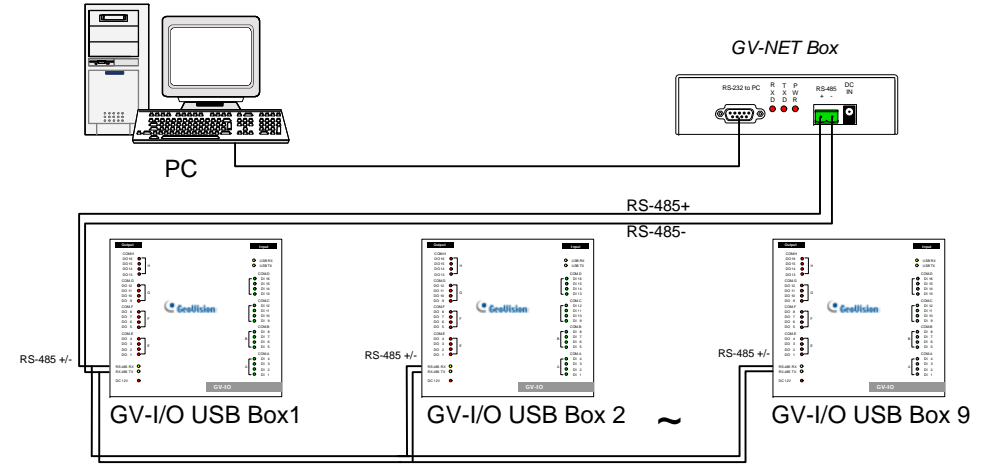
### 2. Connecting to PC with the RS-485 connectors (Allowed for AC/DC Output Voltage)



## Assigning Addresses to GV-I/O USB Boxes

Up to 9 GV-I/O USB Boxes can be chained together to expand the I/O capacity. Use the ID Switch (1~9) to assign addresses 1~ 9 to the connected GV-I/O USB Boxes.

### Up to 9 GV-I/O USB Boxes chain together.



### ID Switch



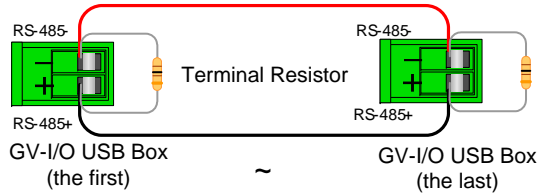
**NOTE:** 1. **Address 0** is NOT functional.

2. When the GV-I/O USB Box is connected with the GV-NET/IO Card:  
Assign Addresses 1 ~ 4 to the connected GV-NET/IO Cards.  
Assign Addresses 5 ~ 9 to the connected GV-I/O USB Boxes.
3. If you want to change the assigned address of the connected GV-I/O USB Box, set the switch to the new address, and then re-plug the power adaptor.

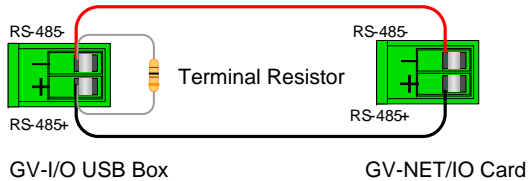
## Long-Distance Connection

The supplied Terminal Resistor must be used when the connection distance is greater than 200 meters.

When one GV-I/O USB Box is connected to another GV-I/O USB Box or more, only insert the Terminal Resistors in the RS-485 connectors of the first and the last connected GV-I/O USB Boxes.



When one GV-I/O USB Box is connected to one GV-NET/IO Card, only insert the Terminal Resistor in the GV-I/O USB Box.



## DIP Switch

The GV-I/O USB Box allows the use of mixing dry and wet contact devices together. The 16 inputs divided as four-in-one groups (A, B, C and D) are related to the 4 switches on the box for dry and wet contact.

To change the inputs to different kind of contact, push the switch upward (wet contact) or downward (dry contact).



Wet Contact

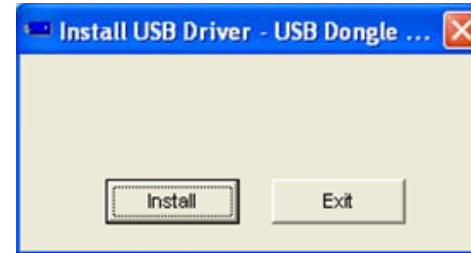


Dry Contact (Default)

## USB Driver Installation

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.

