7. GV-EV48 Controller

7.1 Introduction

GV-EV48 is an elevator controller designed to control access of 1 elevator with a maximum of 48 floors. Up to 2 GV-Readers / GV-GF Fingerprint Readers can be connected to GV-EV48 using RS-485 connection and network connection. GV-EV48 can recognize identification cards and grant access to the authorized floors only.

7.1.1 Main Features

- Grant access to specific elevator floors using access cards, card's PIN code or fingerprints
- **GV-EV48 – 24 Floors:** Built-in 24 relay outputs to support up to 24 elevator floors
- **GV-EV48 – 48 Floors:** Built-in 48 relay outputs to support up to 48 elevator floors
- Support up to 2 GV-Readers / GV-GF Fingerprint Readers through network connection and RS-485 connection

7.1.2 Packing List

- GV-EV48 – 24 Floors / 48 Floors
- Power Adaptor 12V DC / 3A
- Power Cord
- Battery Cable
- Micro SD Card 2 GB
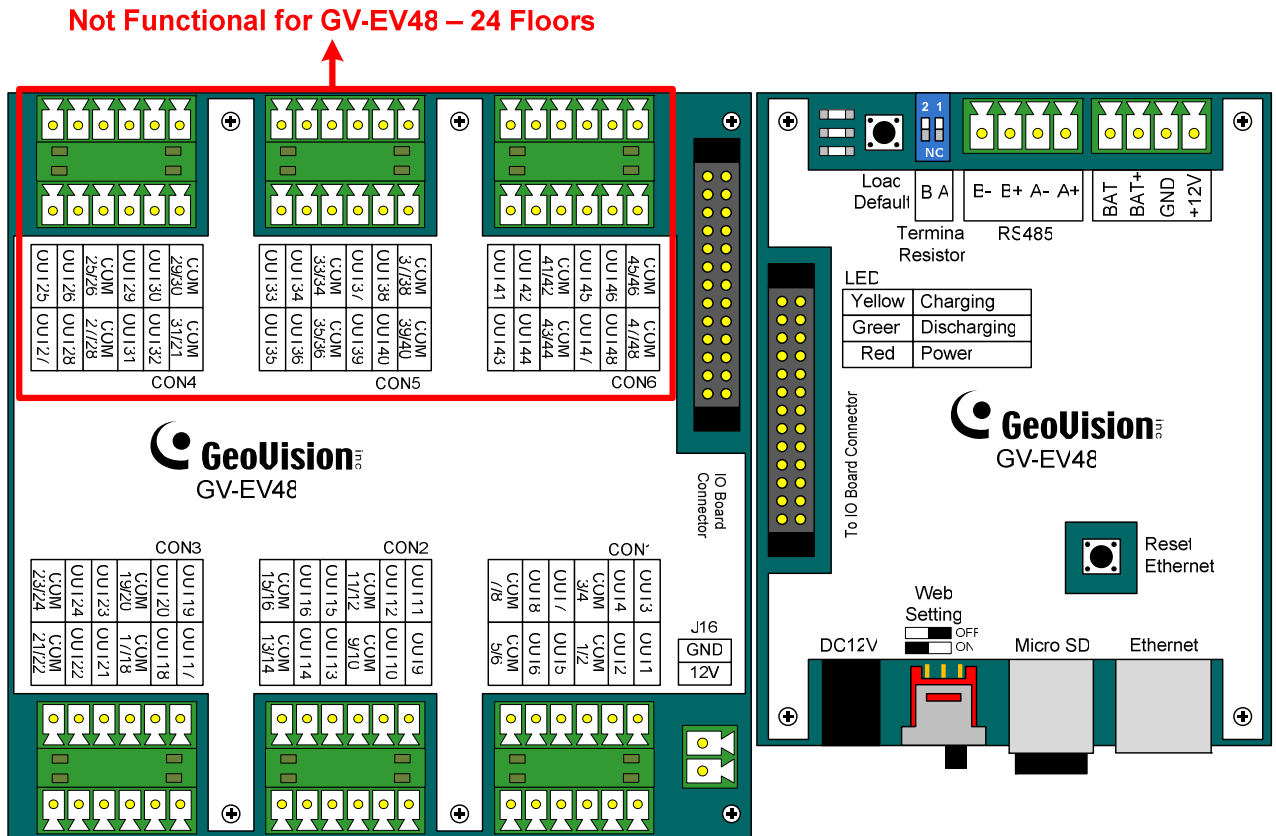- GV-ASManager Software DVD

7.1.3 GV-EV48 Board Layout

Not Functional for GV-EV48 – 24 Floors

Figure 7-1

7.2 Installation

7.2.1 Connecting RS-485 Card Readers

With a single RS-485 cable, you can connect up to 2 GV-Readers and / or GV-GF Fingerprint Readers to the RS-485 interface on GV-EV48.
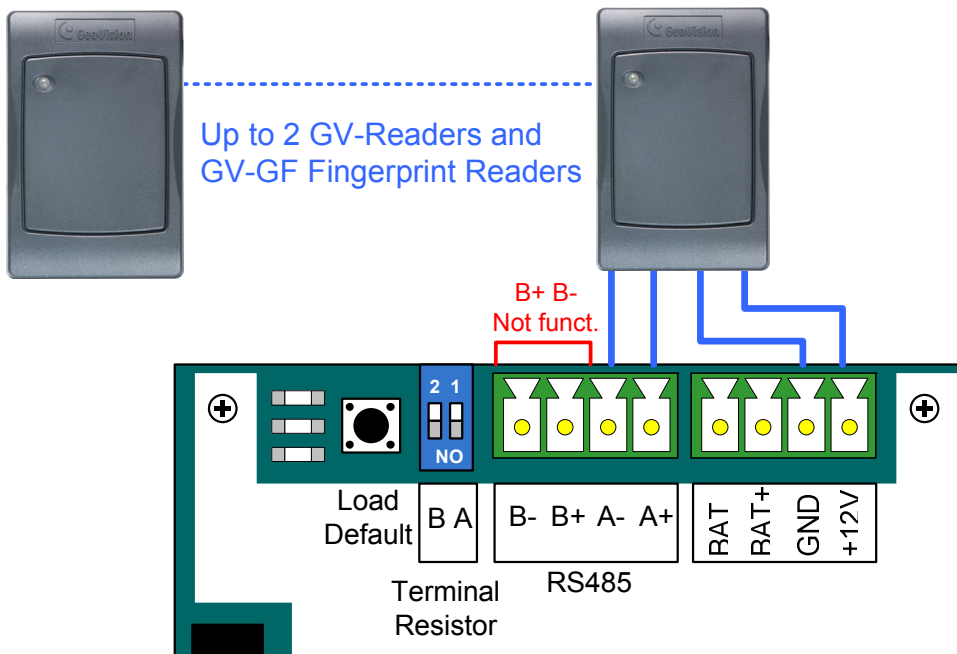

Figure 7-2

To connect to GV-CR420 or GV-GF1921 / 1922 through network connection, refer to *9.3.1 Extended Reader* for details.

Note: When the RS-485 connection between GV-EV48 and the reader is over 600 meters, turn ON the RS485 A Terminal switch to avoid unstable signals. RS485_B Terminal Resister is not functional.

7.2.2 Connecting Output Relay

Up to 24 output relays can be connected to the GV-EV48-24 Floors to control up to 24 elevator floors. Up to 48 output relays can be connected to the GV-EV48-48 Floors to control up to 48 elevator floors. Each output relay is set to control access to a corresponding floor in the elevator.

To connect output relay:

Connect the output relay on the GV-EV48 to the corresponding floor on the elevator control panel. Next, connect the COM on the GV-EV48 to the COM on the elevator control panel.
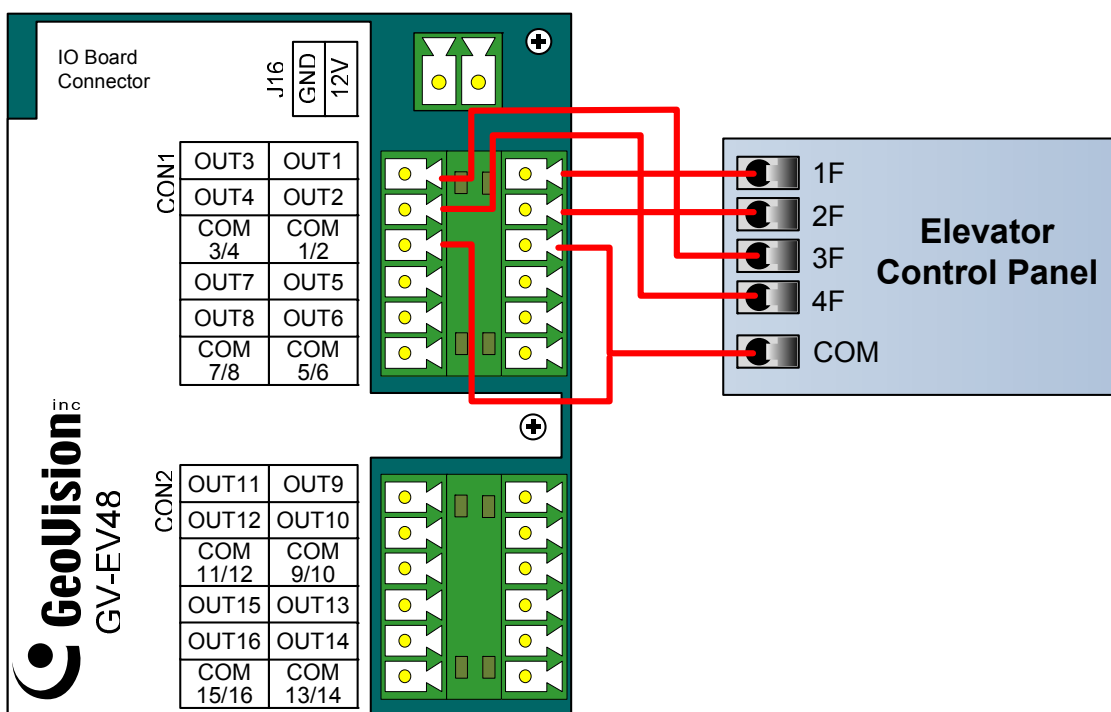

Figure 7-3

7.2.3 Connecting Backup Battery

Using the supplied battery cable, you can connect any battery of 12V 12Ah to GV-EV48 to provide backup power when the main power supply fails. When the main power supply is removed and the battery voltage level is above 10.2V, the Discharging LED will light and the battery will support normal operation of the GV-EV48.
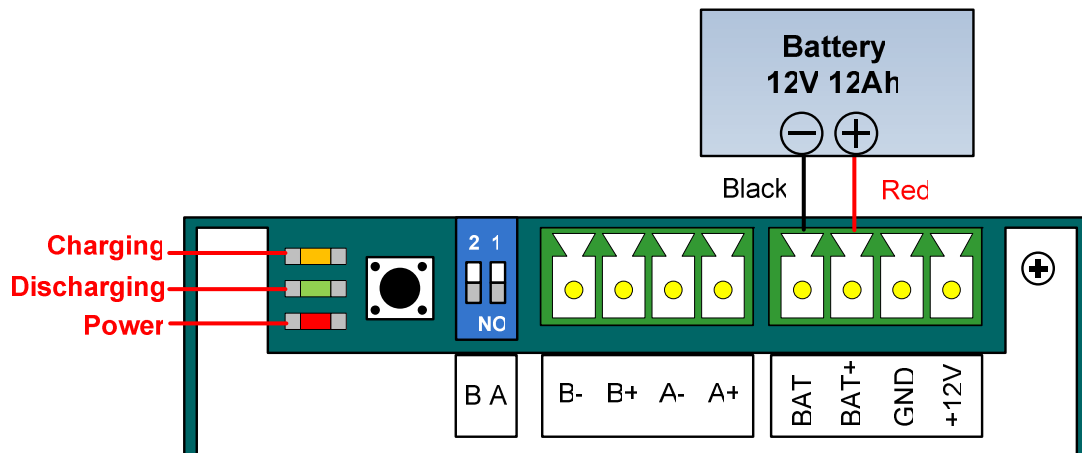

Figure 7-4

7.2.4 Connecting the Power

You can connect GV-EV48 to power directly using the supplied 12V DC adaptor. After power is connected, the power LED on GV-EV48 should glow.

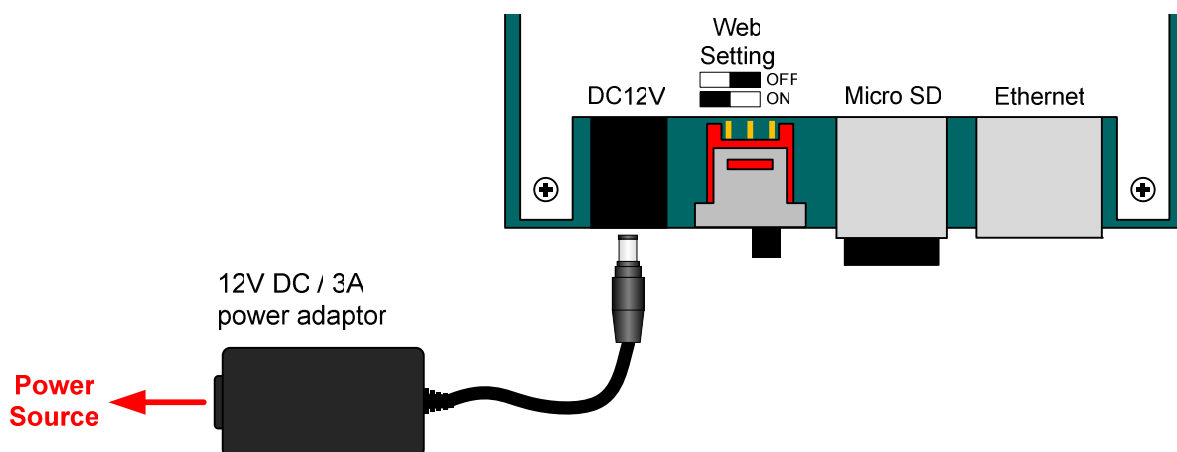**Note:** Power should only be applied to the unit when all connections are completed and tested.

Figure 7-5

7.2.5 Connecting the PC

Connecting GV-EV48 to a computer allows you to access its Web interface and connects it to GV-ASManager if the computer is installed with GV-ASManager. The computer running GV-ASManager software can be used to monitor access information from GV-EV48. If connection with GV-ASManager is interrupted, GV-EV48 stores this information on the supplied micro SD card. The data stored will be sent to GV-ASManager when connection resumes.
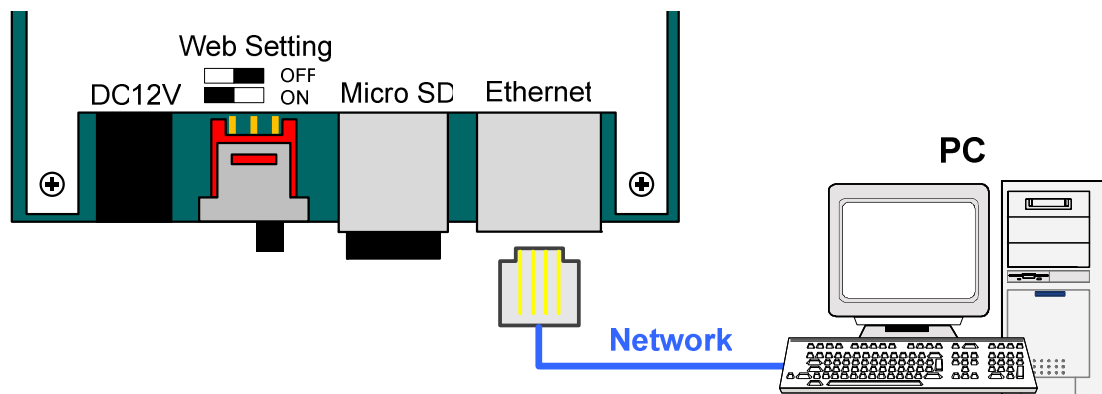

Figure 7-6

Note: GV-EV48 is only compatible with GV-ASManager V4.1 or later.

7.3 Other Settings

7.3.1 Web Setting Switch

When the **Web Setting** switch is set to the ON position, you can modify **Advanced Settings** and **Extended Reader** settings of GV-EV48 through its Web interfaces. When the switch is set to the OFF position, Advanced Settings and Extended Reader settings are not accessible. For details on Advanced Settings and Extended Reader settings, see *9.2 Advanced Settings* and *9.3.1 Extended Reader*.
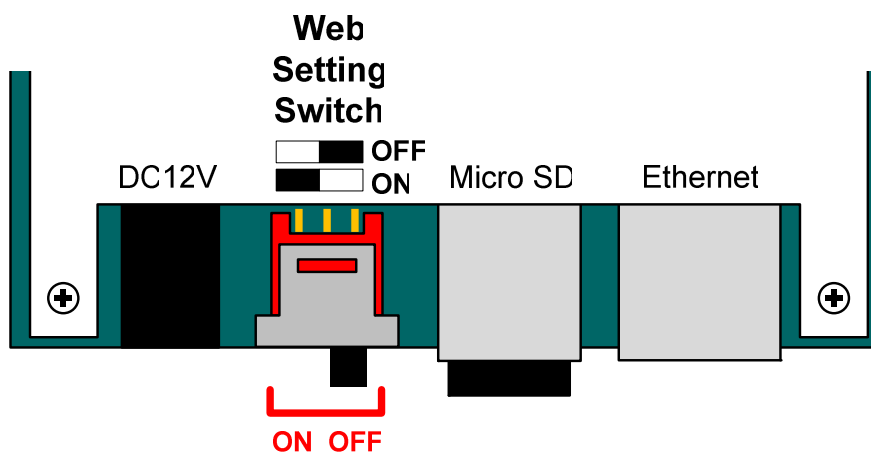

Figure 7-7

7.3.2 Resetting the GV-EV48

To reset GV-EV48, press the **Reset** button on the right side of GV-EV48 circuit board for three seconds.
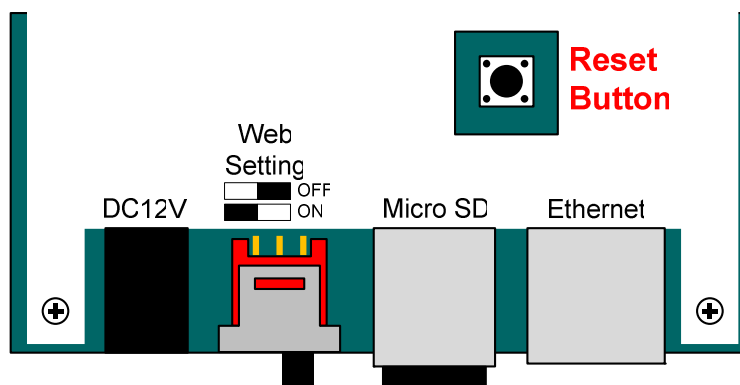

Figure 7-8

7.3.3 Restoring Factory Defaults

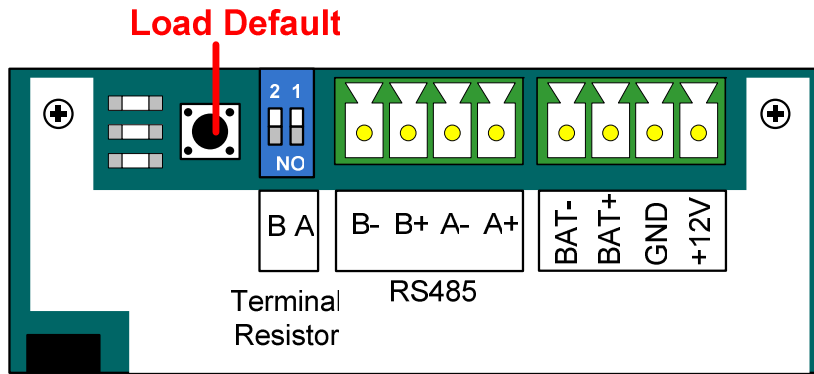To restore GV-EV48 to factory default settings, press the **Default** button for 10 seconds.

Figure 7-9

7.4 The Web Interface

You can install GV-EV48 on a network and configure GV-EV48 through its Web interface.

Refer to *Chapter 8 Installing on a Network* for detailed instructions on setting up a fixed or dynamic IP address to access GV-EV48.

Refer to *Chapter 9 The Web Interface* for details on the setup pages of the Web interface. Through the Web interface, you can configure general settings, specify which floors are restricted and establish connection with associated readers.

7.5 GV-EV48 Specifications

CPU		32-bit ARM7TDMI
Number of User Cards		40,000 cards
Event Buffer		1,000,000 events and log data
Power		100~250V AC, 50~60 Hz
RS-485 Interface		1 RS-485 interface only for GV-Readers and GV-GF Fingerprint Readers (max. 2 readers)
Communication		TCP/IP
Output	GV-EV48-24 Floors	24 relay outputs (30V DC, 1A; 125V AC, 0.3A)
	GV-EV48-48 Floors	48 relay outputs (30V DC, 1A; 125V AC, 0.3A)
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 55 mm / 8.27 x 6.69 x 2.17 in
Weight		610 g / 1.34 lb
Certification		CE, FCC, RoHS

All specifications are subject to change without notice.