

GV-AS1520 Controller

Quick Start Guide



Thank you for purchasing GV-AS1520 Controller. This guide is designed to assist the new user in getting immediate results from the controllers. For advanced information on how to use GV-AS1520, please refer to GV-AS1520 Controller User's Manual.



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GeoVision, Inc.

9F, No. 246, Sec. 1, Neihu Rd.,

Neihu District, Taipei, Taiwan

Tel: +886-2-8797-8377

Fax: +886-2-8797-8335

<http://www.geovision.com.tw>

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July 2020

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1. Introduction

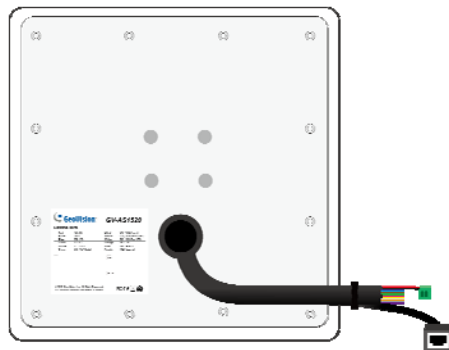
Welcome to the GV-AS1520 Quick Start Guide. In the following sections, you will learn the installation basics for setting up a GV-AS1520. For the detailed instructions of use, see [GV-AS1520 Controller User's Manual](#).

The latest firmware together with all required software and documentation of GV-AS1520 can be found from GeoVision [website](#).

1.1 Packing List

1. GV-AS1520
2. L-Bracket
3. Fixed-Clamp
4. U-Clip
5. Screw x 4
6. Quick Guide
7. Warranty Card

1.2 Wire Definitions



Wire	Definition	Wire	Definition
Red	12V DC	Light Red	DO NO2 (Alarm)
Black	GND	Yellow	DO NO3 (Green LED)
Blue	RS-485+	White	DO NO4 (Red LED)
Light Blue	RS-485-	Orange	IN COM
Brown	DO COM	Gray	IN1 (Sensor)
Green	DO NO1 (Gate)	Purple	IN2 (Not Functional)

1.3 LED Status and Beeper

You can find the LED at the bottom of your GV-AS1520.

Condition	LED	Beeper
Boot completed	Green	Two long beeps
Ready	Green	N/A
The e-tag is detected but the access is denied.	Displays red LED momentarily	Three short beeps

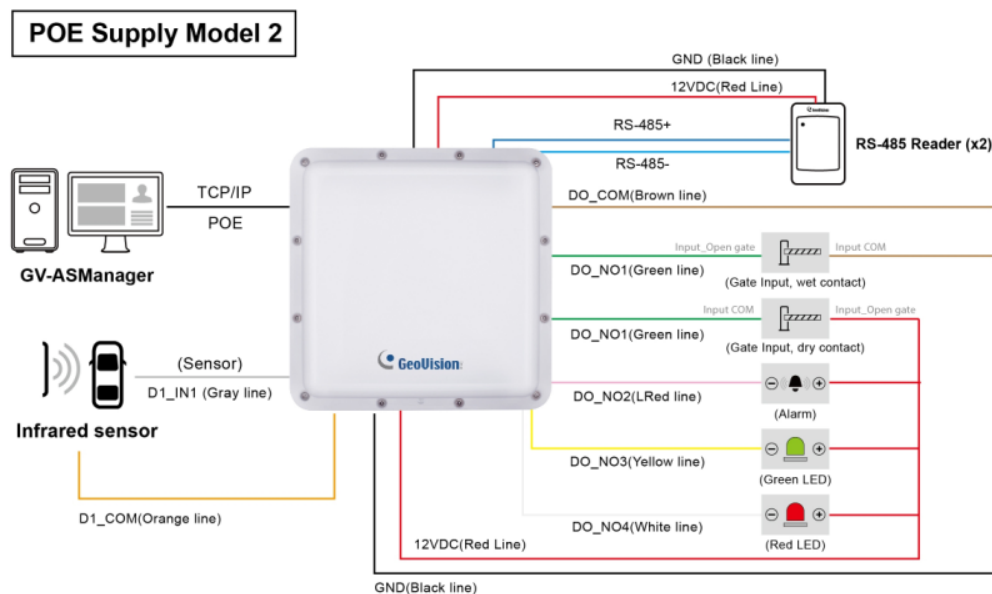
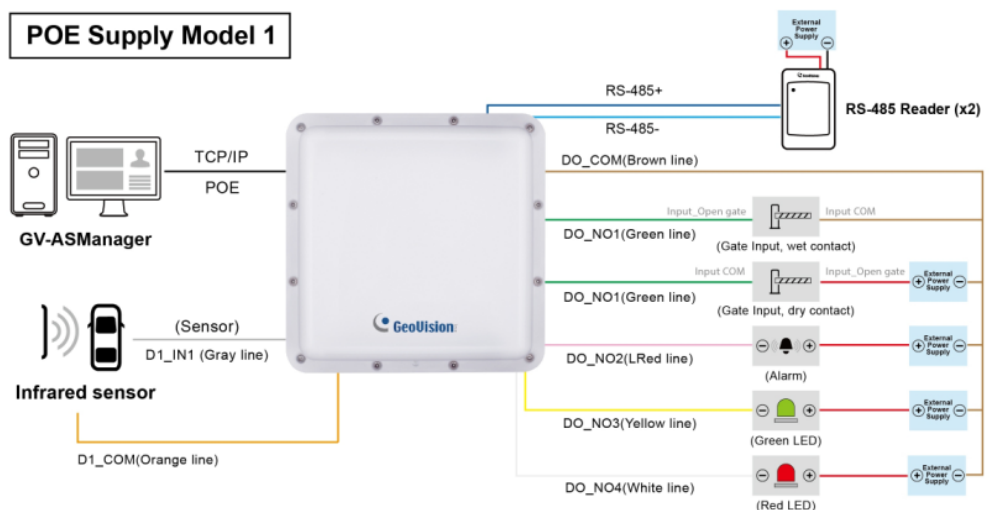
2. Wiring

Use either a Power over Ethernet (POE) adapter or a power adapter to provide power to the GV-AS1520.

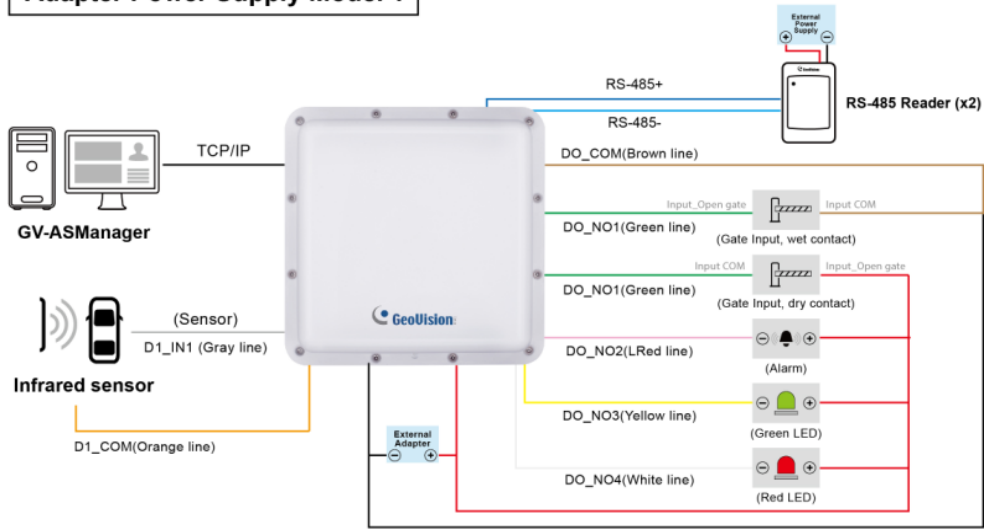
IMPORTANT: GV-AS1520 can only accept PoE power supply or the DC power adapter as one power source. Connecting two power sources at the same time will cause damage to the unit.

Note:

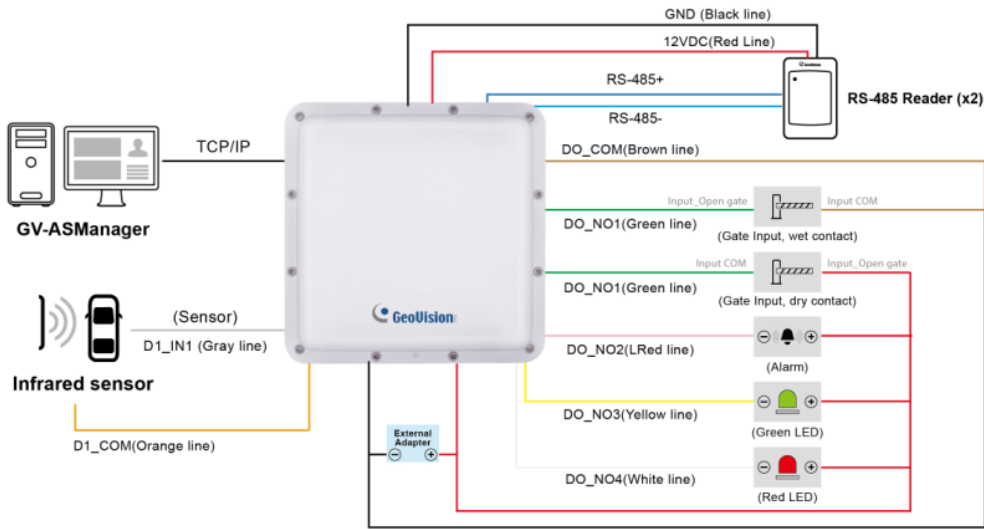
1. The total power consumption must be under 25 W when using a POE adapter.
2. The barrier open signal in DO_NO1 only supports DC current.



Adapter Power Supply Model 1



Adapter Power Supply Model 2

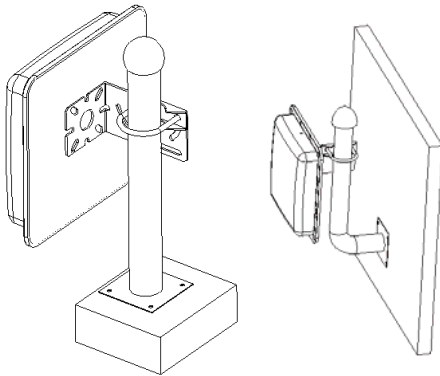


1. RS-485 Card Readers
 - 1.1 Connect with up to 2 readers through a single RS-485 cable.
 - 1.2 When connecting a second reader, a separate power source is required to power the second reader.
2. Input Device
 - 2.1 The input is **dry contact**.
 - 2.2 The input can be configured as normally open (NO) or normally closed (NC) through the Web interface.
3. Output Devices
 - 3.1 Each relay output (DO_NO1 ~ 4) can only support a maximum power consumption of 30V DC, 500mA.
4. Connecting the PC
 - 4.1 Use TCP/IP to connect GV-AS1520 to a computer that allows you to access its Web interface and GV-ASManager if the computer is installed with GV-ASManager.
5. Connecting the Power
 - 5.1 When using a Power Adapter connect the 12V DC and GND wires to a 12V DC power adapter and then connect the power adapter to a power source.
 - 5.2 When using PoE adapter, power will be provided to the device through the Ethernet cable.

3. Installation

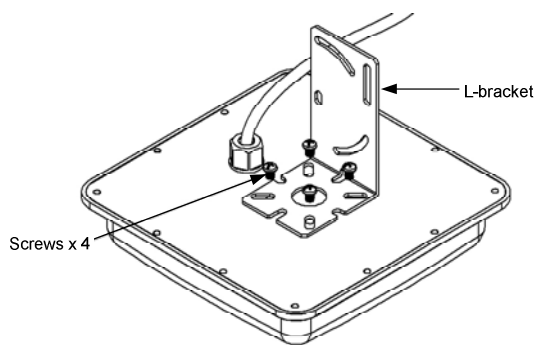
3.1 Installing GV-AS1520

You can install the reader on a pole or a pillar. Two types of pole mounts are recommended, as indicated below.

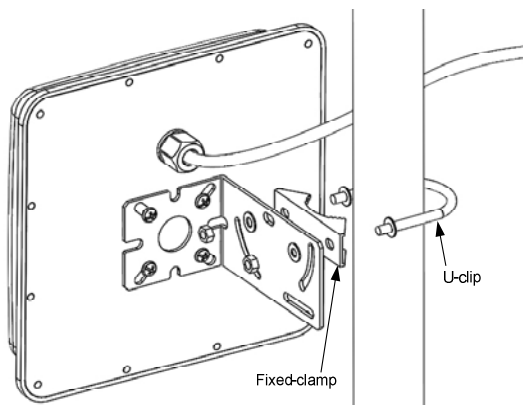


Note: Make sure the diameter of the pole is within 53 mm (0.17 ft).

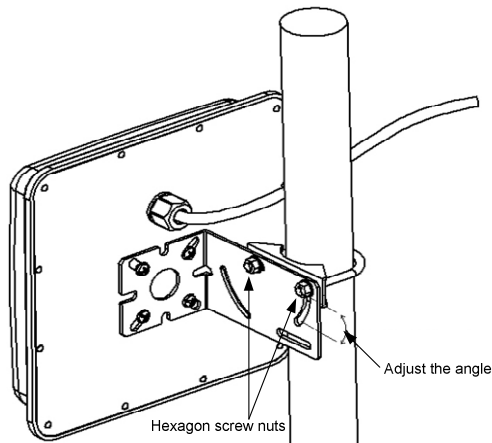
1. Secure the L-bracket with four screws (supplied) on the rear side of the UHF RFID Reader.



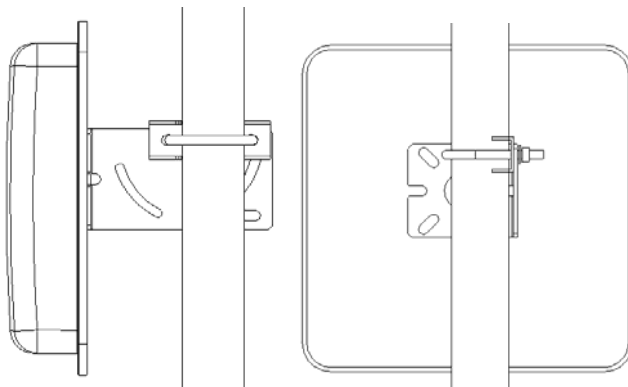
2. Secure the reader on a pillar or a pole using fixed-clamp and U-clip.



3. Adjust the angle of the U-clip on L-bracket and secure the hexagon screw nuts.



4. Here is an overview of the pole mount.



3.2 Installation Considerations

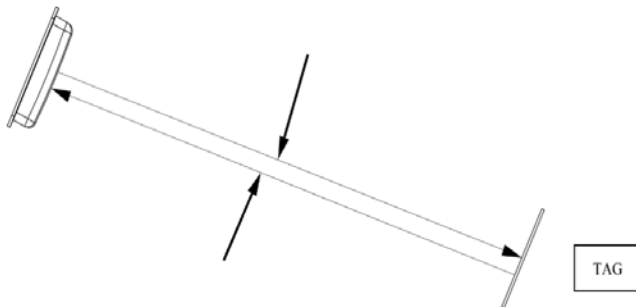
The reading range of 10 m (33 ft) is achieved when the RFID Reader and the RFID tag are installed at the same height, facing each other. The reading range is heavily dependent on the readability of the RFID tags being recognized. Therefore, the reading range may be affected by a variety of environmental and situational factors, which are exemplified by but no limited to the list below:

- The view angle and height of the RFID Reader installed, relative to:
 - The position of the RFID Tag being recognized
 - The position and curve of angle, if any, of the driving lane
- The stability of the power supply of the RFID Reader
- The quality and conditions of the RFID Tag being recognized
- Whether there is any obstruction, especially metal or other materials such as insulation film on the front windshield, between the RFID Reader and Tag
- Whether there is any electromagnetic interference near the installation site of the RFID Reader
- Whether there is any channel-interference among multiple RFID Readers installed close to each other

- When facing opposite directions, RFID Readers must be placed 20 cm (7.9 in) apart or more.
- When facing the same direction, RFID Readers must be assigned to separate bands (available upon request when purchasing).

To further improve the reading range of your RFID installations, follow the steps below.

1. Install the RFID reader with the antenna paralleled to the Tag for better reading results.



The Tag receives signals and returns them to the Reader

2. Install the RFID Reader and Tag as shown below.



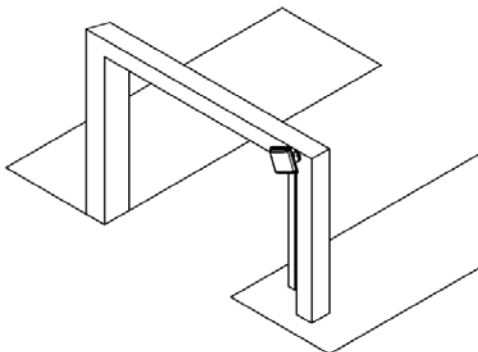
Correct



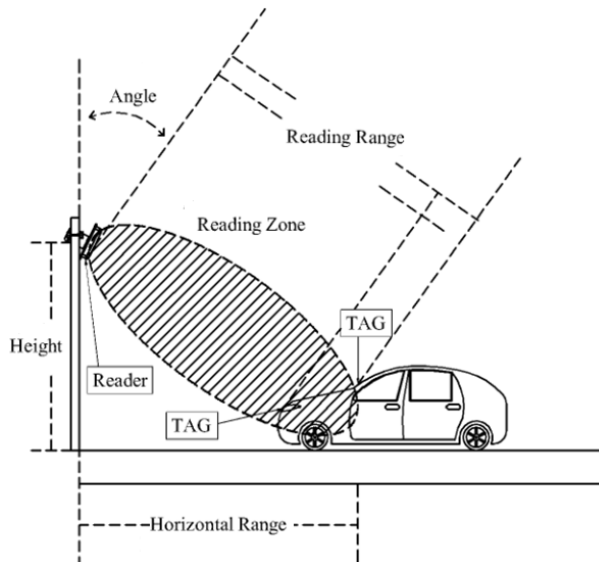
Misplaced

3. RFID Reader Installation Position

- 3.1 Do not install RFID Reader near metal or the metallic substance will affect the electromagnetic field type.

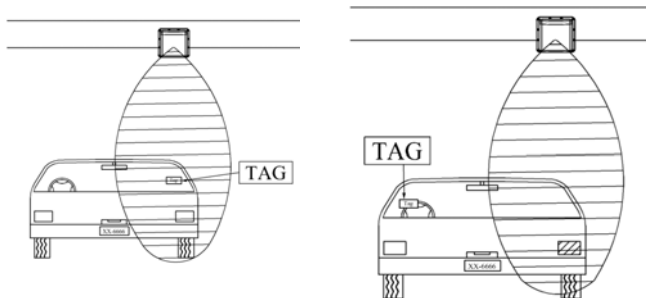


- 3.2 The recommended maximum height to set RFID Reader is 1.8 - 2.2 m (5.9 - 7.2 ft). The height should not be lower than that of the RFID Tag being recognized.
- 3.3 The recommended angle to set RFID Reader is 15-20 degree. Adjust the angle according to the actual installation site.
- 3.4 Keep any barrier away from the reading zone between RFID Reader and the Tag.

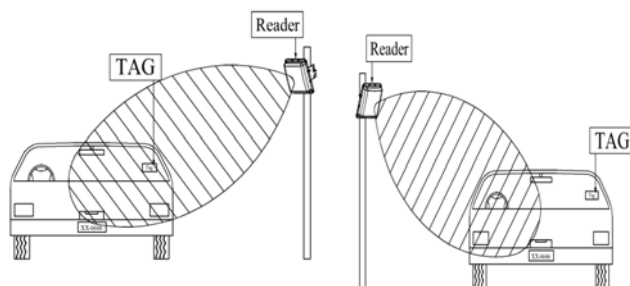


- 4. The RFID Reader must be installed at the same side of the Tag or at the nearest reading range to the Tag.

4.1 Upper Installation



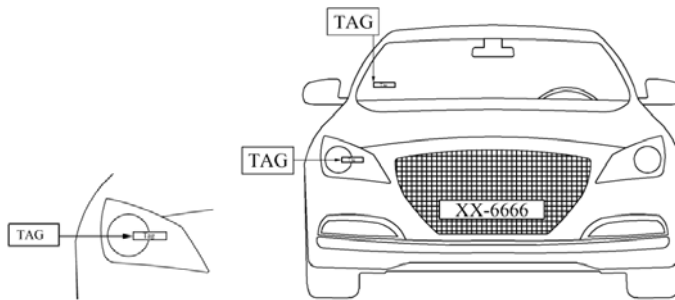
4.2 Side Installation



5. Recommended Tag Position

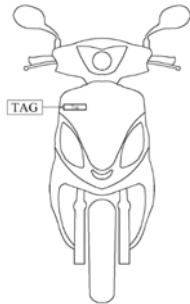
Vehicles

- 5.1 Place the Tag on the front windshield or headlight, at the nearest reading range to the reader.
- 5.2 When placing the Tag on the headlight, keep the Tag away from the metal body of the vehicle.
- 5.3 If the car windshield glass contains metallic line, it will affect the reading range. To avoid such situation, install the Tag on the headlight.



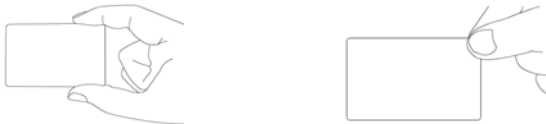
Motorcycles

- 5.4 Install the Tag on the front shield and at the closest range to the RFID Reader.
- 5.5 If there is no front shield available, it is suggested to install the Tag on the plastic body of motorcycle at the closest range to the RFID Reader.



6. For card-type tags, hold the card as shown below to ensure reading results.

Correct



Misplaced



7. Notice

- 7.1 When the installation is complete, examine and adjust the environment parameters again for better reading results.
- 7.2 When two or more RFID Readers are installed together, co-channel interference might occur.

Note: To avoid channel interference, see the requirements for RFID Readers facing opposite directions or the same direction on page 12.

4. Installing on a Network

You can install GV-AS1520 on a network and set up general settings and input device through its Web interface. Through the network connection, you can also connect GV-AS1520 to GV-ASManager for more comprehensive management.


There are three ways to set up GV-AS1520 on the network.

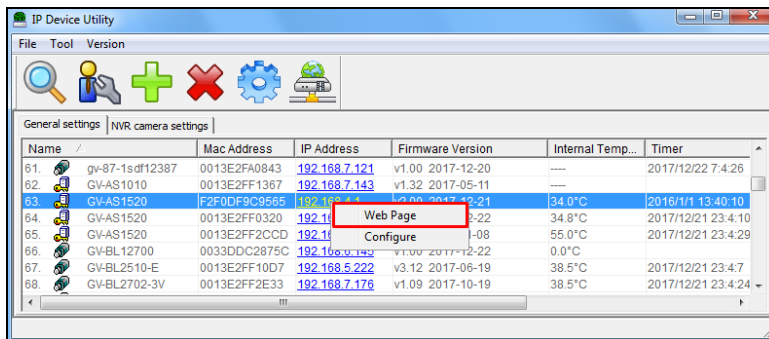
- By the dynamic IP address
- By the default static IP address
- Through a DDNS server

4.1 Checking the Dynamic IP address

1. Download and install GV-IP Device Utility program from our [website](#).

Note: The PC installed with GV-IP Device Utility must be under the same LAN as GV-AS1520.

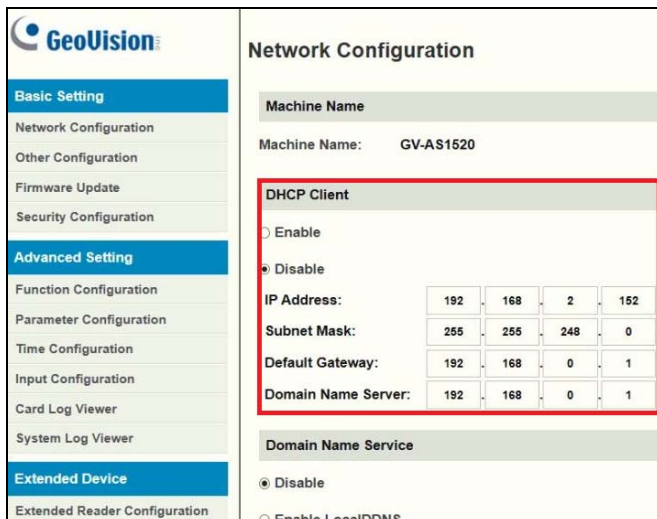
2. On the GV-IP Utility window, click the  button to search for the IP devices connected in the same LAN.
3. Click the **Name** or **Mac Address** column to sort.
4. Find GV-AS1520 with its MAC address, click on its IP address and select **Web Page**.



5. When login dialog box appears, type the default ID and password **admin** and click **OK** to log in.

4.2 Configuring the Static IP Address

1. Open an Internet browser, and type the default IP address <https://192.168.0.100> or the dynamic IP address. The login dialog box appears.
2. Type default value **admin** for both Username and Password, and click **OK**. This page appears.



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Network Configuration

Machine Name
Machine Name: GV-AS1520

DHCP Client

Enable
 Disable

IP Address:

192	168	2	152
-----	-----	---	-----

Subnet Mask:

255	255	248	0
-----	-----	-----	---

Default Gateway:

192	168	0	1
-----	-----	---	---

Domain Name Server:

192	168	0	1
-----	-----	---	---

Domain Name Service

Disable
 Enable LocalDDNS

3. In the **DHCP Client** section, click **Disable**. Type the static IP address information, including IP Address, Subnet Mask, Default Gateway and Domain Name Server.
4. Click **Submit**. When the setting is complete, the Status field will indicate *Register Success*. Then GV-AS1520 can be accessed with this fixed IP address.

4.3 Configuring DDNS Connection

If your network environment is using the dynamic IP address from a DHCP server, you can use one of the following DDNS servers to map a dynamic IP address to a static domain name or device.

1. For LAN connection, GV-localDDNS Server is provided.
2. For Internet connection, two DDNS servers are supported: GeoVision DDNS Server and Dynamic Network Services Inc. (DynDNS).

For details, see *Configuring DDNS Connection*, Chapter 4, [GV-AS1520 Controller User's Manual](#).