Longevity LGAP200

Wireless

Outdoor AP

User Manual

Table of Contents

Important Safeguards and Warnings

Please read the following safeguards and warnings carefully before using the product in order to avoid damages losses and body injuries.

Electrical Safety Information

- ✧ This product uses 48V POE as power source. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
- ✧ There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.
- ✧ Do not use this product in location that can be submerged by water.
- ✧ Do not install this product during an electrical storm. There may be a risk of electric shock from lightning.

Notice Information

- ■ All the designs, software and instructions here are subject to change without prior written notice.
- ■ We would not be responsible for any damages and losses caused by improper operations or installation. Do not allow non-authorized or unqualified personnel with any kind of intervention to the product.
- ■ All trademarks and registered trademarks are the properties of their respective owners.
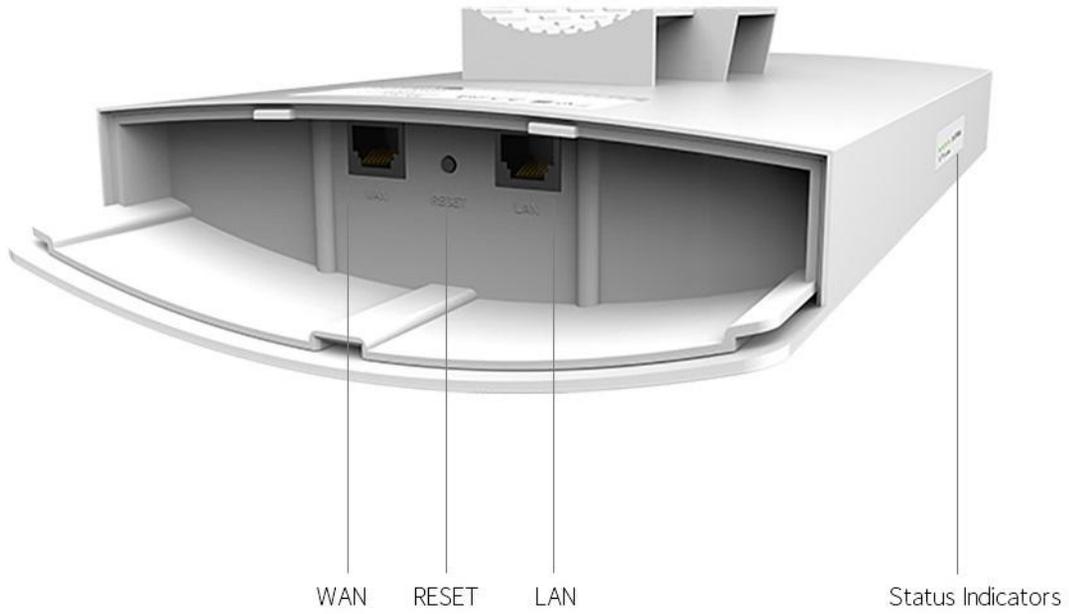- ■ Please visit our website www.rhinoco.com.au for more information.

Introduction

Longevity LGAP200 is designed for long distance transmission of IP packets which is commonly used in PC network and network cameras. It has four working modes: Access Point, Bridge, Repeater and Router.

Package Contents

Confirm that the following parts are included:

Packing List

User Manual

POE Power Adaptor

Longevity LGAP200

Stainless Steel Straps

Power Cord

Device Layout

WAN   RESET   LAN   Status Indicators

Installation - Pole mounting

1. Install the stainless straps to the back of the device as shown.

2. Align the device on the pole and then fasten the straps.

Connection Diagram

1. Connect the power cord to the power connector on the back of the POE injector. Plug the other end of the power cord into an AC (mains) power outlet.

2. Connect the LAN port of the Longevity LGAP200 to your PC/Laptop or IP camera's Ethernet port with an Ethernet cable.

3. Connect the WAN port of the Longevity LGAP200 to the POE port of the POE injector with an Ethernet cable.
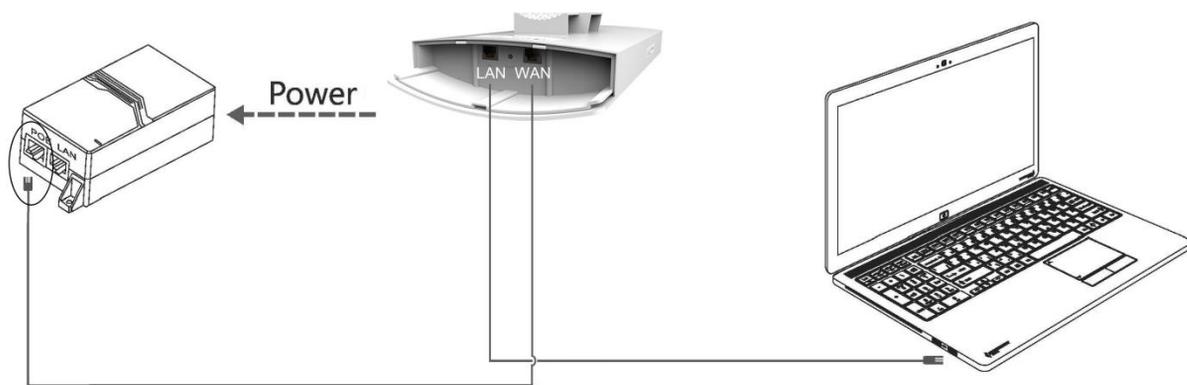
Connect to PC/Laptop
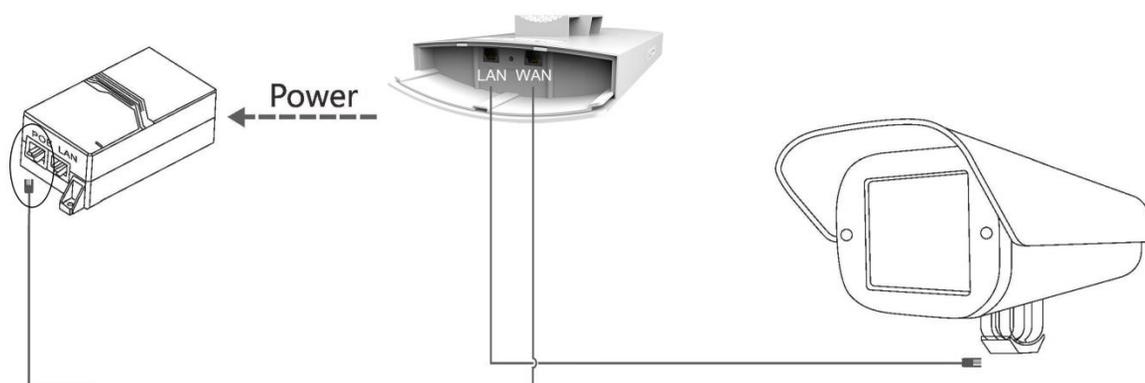
Connect to an IP camera

Device Setup

1. Connect the device as shown above.
2. Change the IP address of your PC/Laptop to 192.168.10.199. (Other number except 192.168.10.1 may also work)
3. The default IP address of the device is 192.168.10.1. Open your web browser and type 192.168.10.1 into the address bar of your browser and press <ENTER>.

Note: If the browser is not working properly, clear the cache and cookies data of the browser. Restart the browser and try again. (Internet Explorer or Microsoft Edge is recommended)

4. Input the password and click **Login**. The default password is **admin.**
5. Click the **Wizard** icon on the left panel to select operating mode.

Longevity LGAP200 has 4 working modes: Router, **Bridge**, **Access Point (AP) and Repeater**.
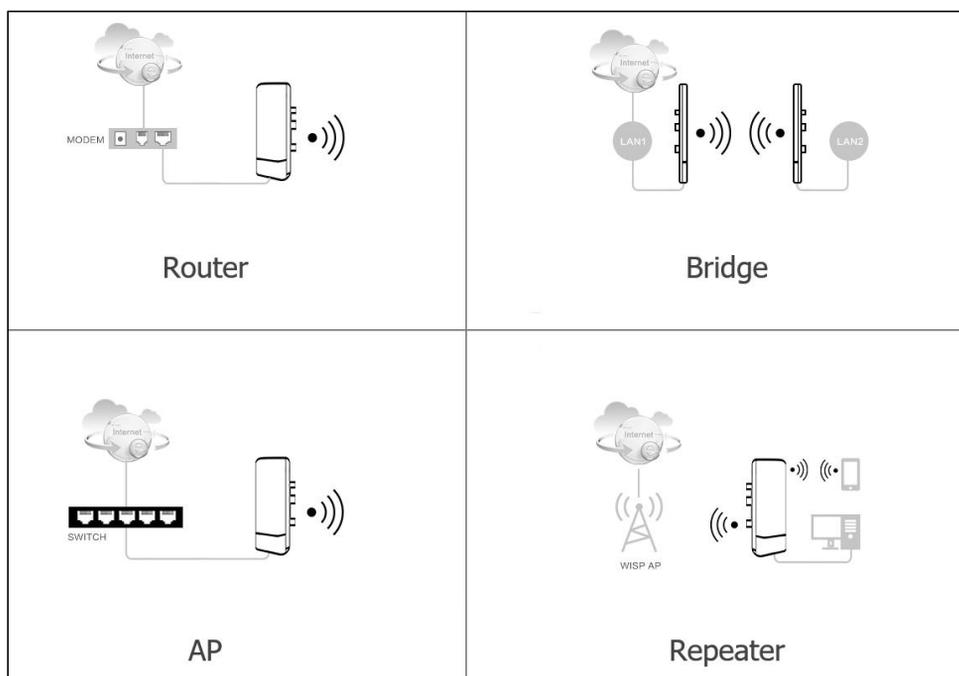
Mode	Function
Bridge	Connect two network segments wirelessly
AP (Access Point)	When connects to a wired router or switch with internet access, it creates a wireless local area network (WLAN) for other devices such as mobile phones, laptops etc.
Repeater	It repeats signal from a wireless router or wireless access point and rebroadcasts the signal to other wireless devices.
Router	It provides access to the Internet or a private wireless computer network (WLAN).

Bridge Mode (Station - Secondary Site)

    i.   Change the IP address and subnet mask if required then click **Next** to continue.

    ii.   Click **Scan** to scan all available WiFi signal. (Only 5G WiFi signal will be displayed.)

    iii.   Click   to select the WiFi to be bridged.

iv. Input the WiFi password of the select WiFi and click **Next** to continue.
v. Input the SSID in **SSID** and customize the password in **Password for 2.4G and 5.8G** WiFi settings.

Bridge

①	②	③	④	⑤
LAN settings	Bridge setting	2.4G MHz wireless setting	5.8G MHz wireless setting	Finish

Wireless Settings

SSID   My WiFi   ✔

Password   xxxxxxxx   ✔

prev   next

Bridge

①	②	③	④	⑤
LAN settings	Bridge setting	2.4G MHz wireless setting	5.8G MHz wireless setting	Finish

Wireless Settings

SSID   My WiFi 5G   ✔

Password   xxxxxxxx   ✕   ✔

prev   next

vi. Click **Finish** to complete setup.

Bridge

①	②	③	④	⑤
LAN settings	Bridge setting	2.4G MHz wireless setting	5.8G MHz wireless setting	Finish

Router

IP   192.168.10.1

Subnet mask   255.255.255.0

2.4G SSID   My WiFi

5.8G SSID   My WiFi 5G

prev   Finish

Access Point (AP) Mode

    i.   Change the IP address and subnet mask if required then click **Next** to continue.

    ii.   Enter a unique wireless network name (SSID) in the Local SSID field and then a 8-32 characters password. Leave other settings as default values.

AP

①	②	③	④
LAN settings	2.4G MHz wireless setting	5.8G MHz wireless setting	Finish

Wireless Settings

SSID   My WiFi 5G ✔

Password   xxxxxxxx ✔

Wireless Advanced Settings

Bandwidth   80MHz

Country   China

Channel   auto

prev   next

AP

①	②	③	④
LAN settings	2.4G MHz wireless setting	5.8G MHz wireless setting	Finish

Wireless Settings

SSID   My WiFi ✔

Password   xxxxxxxx ✕ ✔

Wireless Advanced Settings

Bandwidth   20MHz

Country

Channel   auto

prev   next

    iii.   Click **Finish** to complete setup.

AP

①	②	③	④
LAN settings	2.4G MHz wireless setting	5.8G MHz wireless setting	Finish

AP

IP   192.168.10.1

Subnet mask   255.255.255.0

2.4G SSID   My WiFi

5.8G SSID   My WiFi 5G

prev   Finish

Repeater Mode

    i.   Change the IP address and subnet mask if required then click **Next** to continue.

    ii.   Click **Scan** to scan the WiFi to repeat.

    iii.   Click   to select the WiFi to repeat.

iv.   Input the WiFi password of the select WiFi and click Next to continue.
v.   Input the SSID in SSID and customize the password in Password for 2.4G and 5.8G WiFi settings then click **Next** to continue.

Repeater

①	②	③	④	⑤
LAN settings	Repeater setting	2.4G MHz wireless setting	5.8G MHz wireless setting	Finish

Wireless Settings

SSID   My WiFi ✔

Password   xxxxxxxx ✕ ✔

prev   next

Repeater

①	②	③	④	⑤
LAN settings	Repeater setting	2.4G MHz wireless setting	5.8G MHz wireless setting	Finish

Wireless Settings

SSID   My WiFi 5G ✔

Password   xxxxxxxx ✕ ✔

prev   next

vii. Click **Finish** to complete setup.

Repeater

①	②	③	④	⑤
LAN settings	Repeater setting	2.4G MHz wireless setting	5.8G MHz wireless setting	Finish

Router

IP   192.168.10.1

Subnet mask   255.255.255.0

2.4G SSID   My WiFi

5.8G SSID   My WiFi 5G

prev   Finish

Router Mode

Select the internet connection type: PPPoE, Static - Static IP or DHCP.

a) PPPoE

    i.   Enter Username and Password for the PPPoE account then click **Next** to continue.

    ii.   Change the IP address and subnet mask if required then click **Next** to continue.

    iii.   Input the SSID in **SSID** and customize the password in **Password** for 2.4G and 5.8G WiFi settings then click **Next** to continue.

Router

①	②	③	④	⑤
WAN settings	LAN settings	2.4G MHz wireless setting	5.8G MHz wireless setting	Finish

Wireless Settings

SSID   My WiFi 5G   ✔

Password   xxxxxxxx   ✔

Wireless Advanced Settings

Bandwidth   80MHz

Country

Channel   auto

prev   next

viii. Click **Finish** to complete setup.

Router

①	②	③	④	⑤
WAN settings	LAN settings	2.4G MHz wireless setting	5.8G MHz wireless setting	Finish

Router

IP   192.168.10.1

Subnet mask   255.255.255.0

2.4G SSID   My WiFi

5.8G SSID   My WiFi 5G

prev   Finish

b) Static IP
   i. Input the static IP address, Subnet mask, Gateway and DNS for the router then Click Next to continue.

   ii. Change the IP address and subnet mask if required then click **Next** to continue.

   iii. Input the SSID in SSID and customize the password in Password for 2.4G and 5.8G WiFi settings then click **Next** to continue.

iv.   Click **Finish** to complete setup.

Router

①————②————③————④————⑤
WAN settings   LAN settings   2.4G MHz wireless setting   5.8G MHz wireless setting   Finish

Wireless Settings

SSID   My WiFi 5G   ✔

Password   xxxxxxxx   ✕   ✔

Wireless Advanced Settings

Bandwidth   80MHz   ▾

Country   ▾

Channel   auto   ▾

prev   next

Router

①————②————③————④————⑤
WAN settings   LAN settings   2.4G MHz wireless setting   5.8G MHz wireless setting   Finish

Router

IP   192.168.10.1

Subnet mask   255.255.255.0

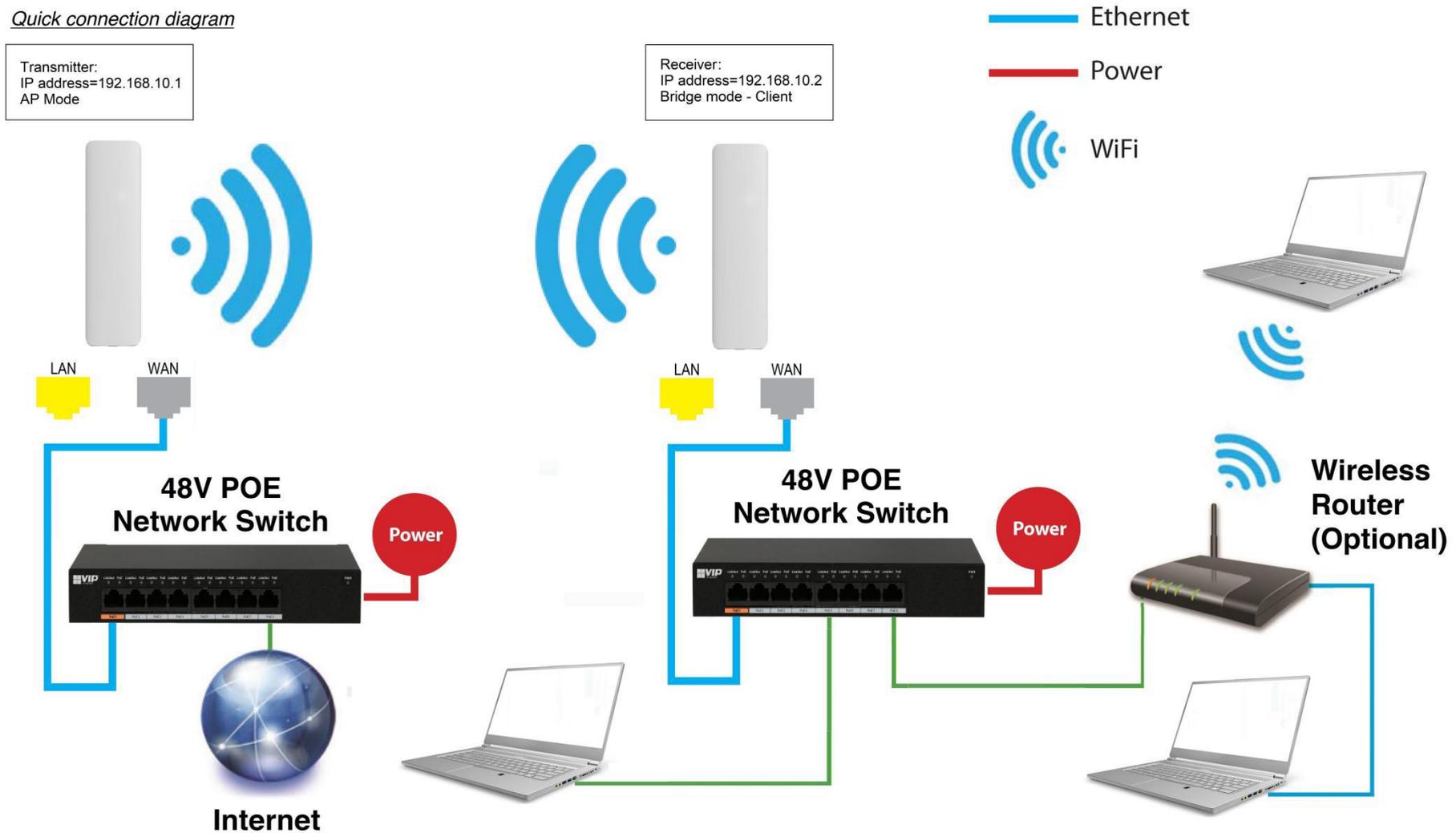2.4G SSID   My WiFi

5.8G SSID   My WiFi 5G

prev   Finish

Application 1 - Network Extender using Bridge Mode

In this example, one device works in AP(Access Point) mode and another one works in Bridge mode(Client).
Note: Must use different IP address for the AP(Access Point) and Bridge client.

Application 2 - Network Video Recorder + Camera

Quick connection diagram

Ethernet

Power

WiFi

Transmitter:
IP address=192.168.10.1
AP Mode

Receiver:
IP address=192.168.10.2
Bridge mode - Client

Power

LAN   WAN

LAN   WAN

48V POE Injector

**48V POE
Network Switch**

Power

NVR

POE Switch

Power

....
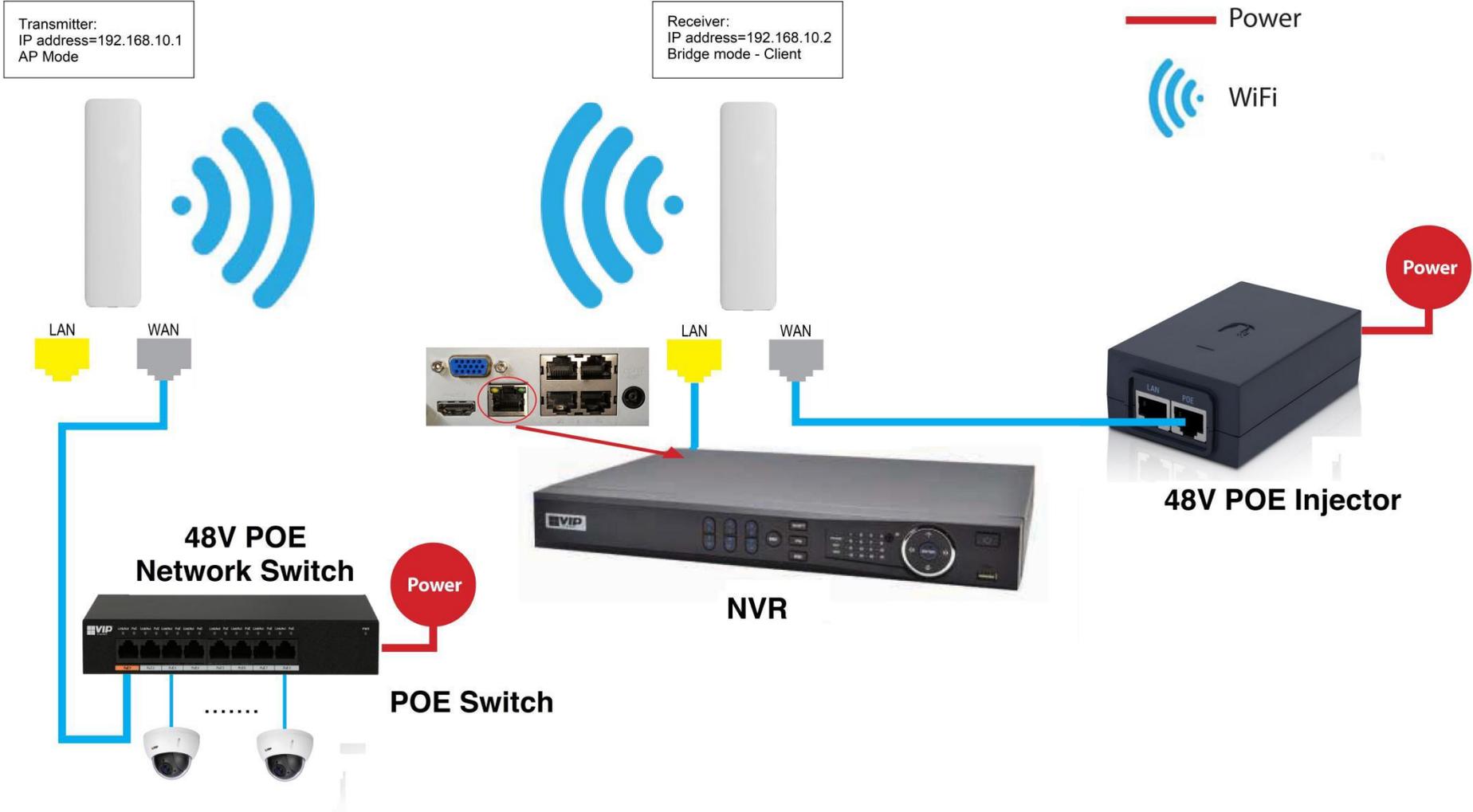
Installation Considerations

Mounting Height: For optimum performance, make sure a clear line of sight between the transmitter and receiver. An elevated location is recommended. Obstacles like trees, buildings and large steel structures will weaken the wireless signal.

Orientation: Make sure the transmitter and receiver is installed face-to-face to achieve maximum performance.

FAQs

Q: Do I need a power supply for the transmitter/receiver?
A: No, you don't. The transmitter/receiver is powered by 48V POE. Use a CAT5e/CAT6 cable, connect the WAN port to a 48V POE network switch or a 48V POE injector supplied. Connect the LAN port to the network device.

Q: How to reset the device?
A: Press and hold the RESET button for 5 seconds when power is on.

Q: I configured the AP as network bridge. How can I test the connection?
A: You can ping both the transmitter and receiver.

For example, if the transmitter address is 192.168.10.1 and those of receiver is 192.168.10.2:

i. Change the IP address of the PC to 192.168.10.xx where xx=3 to 255. Change the subnet mask to 255.255.255.0
ii. Ping the receiver side first (because the receiver is connected to the PC):
In Command mode, type: **ping 192.168.10.2 <ENTER>**
If the connection is successful, it will reply as follow:

```
Pinging 192.168.10.2 with 32 bytes of data:
Reply from 192.168.10.2: bytes=32 time<1ms TTL=64
Reply from 192.168.10.2: bytes=32 time=1ms TTL=64
Reply from 192.168.10.2: bytes=32 time<1ms TTL=64
Reply from 192.168.10.2: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.10.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

Note: Make sure 0% loss as the receiver is connected to the PC direct, it should get 100% hit rate (0% loss).

The connection between the PC and the receiver is established.

Now test the connection between the transmitter and receiver:

iii. In Command mode, type: **ping 192.168.10.1 <ENTER>**
If the connection is successful, it will reply as follow:

```
Pinging 192.168.10.1 with 32 bytes of data:
Reply from 192.168.10.1: bytes=32 time<1ms TTL=64
Reply from 192.168.10.1: bytes=32 time=1ms TTL=64
Reply from 192.168.10.1: bytes=32 time<1ms TTL=64
Reply from 192.168.10.1: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.10.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

Note: The ideal case is to have 100% hit rate (0% loss). If not, adjust the CPE's orientation, height and distance to achieve the best performance.

You can also test the connection continuously by typing: **ping 192.168.10.1 -t <ENTER>**

Press **Ctrl-C** to stop testing.

Type **exit** to return to Windows platform.

Q: What is the default password for the web interface?
A: The default password is "**admin**".

Q: Web browser displays incorrectly.
A: Clear the cache and cookies data of the browser. Close the browser and open again.