Outdoor WiFi access point

IN-APW2

Installation manual

How to install the access point and how to configure it

What did you buy

You have purchased an outdoor WiFi Access Point (hereafter abbreviated AP) which allows you to easily create a WiFi hot spot on your local network. It is housed in an IP54 rainproof enclosure so it can be seamlessly installed outdoors to extend your wireless network outside the building.

This access point is powered in POE by connecting it to a POE switch on the network or via the included poe injector if you connect it to a network port without POE, such as that of the router for example.

This AP is ideal when you want to connect external wifi cameras to provide adequate 2.4GHz wireless coverage.

INCLUDED IN THE PACKAGE

- 2.4GHz outdoor access point IP54 2 pcs
- omnidirectional antennas for wifi POE
- injector
- Network cable
- Stainless steel clamps for pole mounting

Wiring
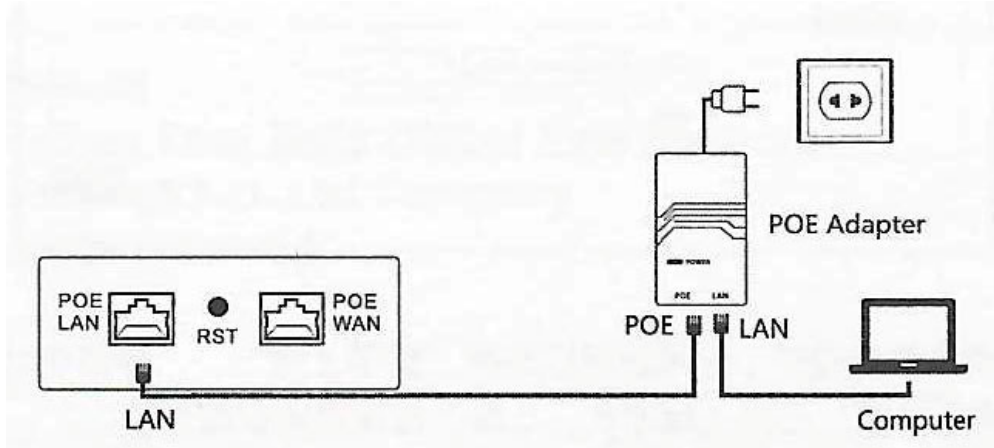
POE WAN – RJ45 port to connect the main wired network (switch, router). This port supports 48V POE power supply and should normally be connected to a POE switch on the network. If you connect a port without POE power, you need to interpose the included POE injector, as shown in the figure.

POE LAN – RJ45 socket to connect the local wired network in the ways that use it POE ADAPTER – POE injector included. The injector should be used if the access point is connected to a switch or router that does NOT provide POE power. However, the injector should not be used if the AP is connected to a POE switch. The POE injector is also used when the device's operating mode does not include a wired network connection, such as, for example, in Repeater mode.

RESET – Press and hold for 10 seconds to restore factory settings. Upon reboot the AP goes back to Router factory mode and broadcasts its wifi network as 192.168.10.1. The reset also deletes any personalized access passwords. The first time you log in, you are prompted to set a new administrator password.

Assembly

The access point is equipped with a rear bracket that allows both wall mounting and round pole fixing with the supplied clamps.

Connection

The wifi access point doesn't require much setup. Indeed, just connect it to the network because it automatically acquires an IP address from the router and is ready for its function as a hot spot.

Connect the WAN port of the AP to a POE switch with the network cable. Check that the side power LED turns on. Wait a few moments and the operating LEDs of the connected wired port and the wifi LED will also light up

1 – SEARCH FOR THE WIFI DEVICE NETWORK

Search for wifi networks with your mobile phone and you will find the wifi network generated by our 2.4GHZ device. You'll see a name starting with COM---- , like in this example.

2 – CONNECT TO THE DEVICE'S WIFI NETWORK

Connect to the device's WiFi network. By default, no password is required. Normally, if your router has correctly assigned a DHCP IP to the AP, your device is already functional and will give you access to the network and the Internet right away.

If your mobile warns you that this network does not have Internet, then something is wrong and you need to change the configuration. Choose to continue anyway and

maintain the connection in order to then access the product configuration.

Access to configuration

The wifi access point almost never requires configuration and is immediately ready to work. However, for particular network situations or to use it in other ways, you can access the configuration

ACCESS THE CONFIGURATION WITH THE PHONE BROWSER

You don't need to download any apps to configure the AP, just use your phone's Internet browser.

Open your Internet browser and enter in the address bar:

192.168.10.1,which is the factory IP address of the AP.
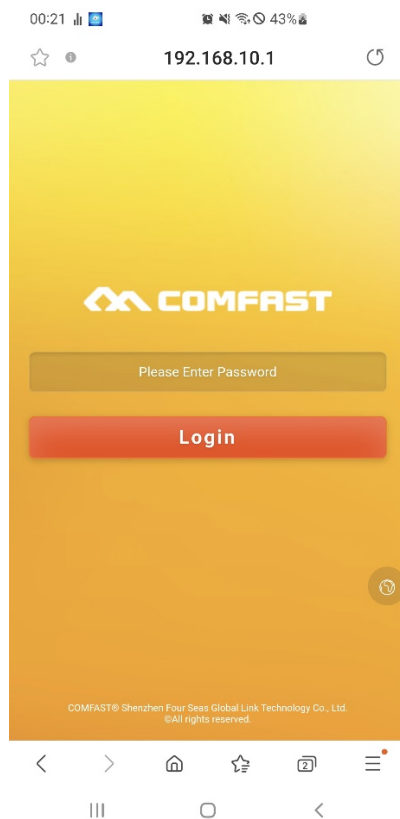
First, if necessary, press the small button on the right with the world icon and select the English language.

To access the device, enter the factory password:**admin**

**FACTORY DEFAULT SETTINGS: IP:**

192.168.10.1

Password: admin

NOTE: If typing 192.168.10.1 into your browser does not bring up the login page, this

it means that you are not connected to the access point's wifi. Check your phone's wifi connections that your phone hasn't, for example, restored the connection to another network.

STATUS - DEVICE STATE

The first page of the configuration shows you the current status of the device. You can scroll down this page to see all the device data
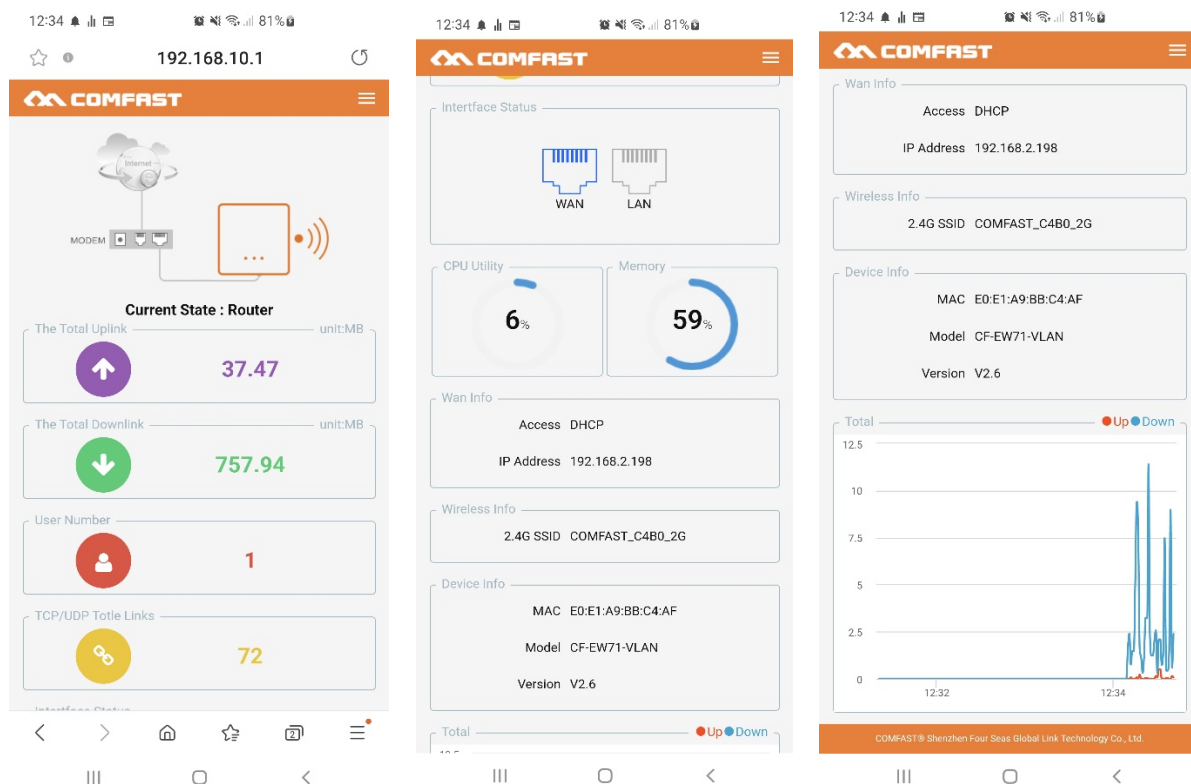
CURRENT STATE – It is the current operating mode. Later in the manual we will explain more about the different modes of operation.

INTERFACE STATUS - Shows which wired network port you are using CPU

MEMORY - Shows device resource usage

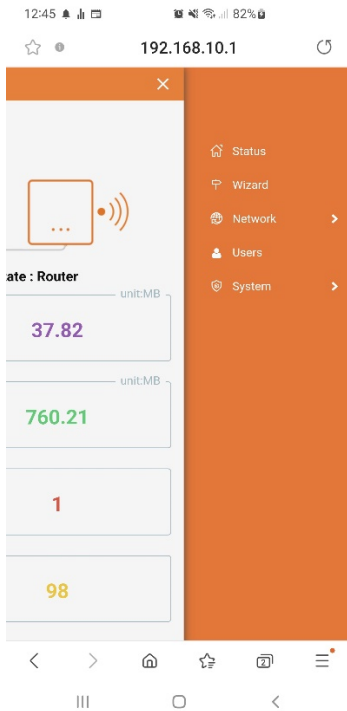WEB INFO - Shows the network parameters of the wired network connection WIRELESS

INFO - Shows the name (SSID) of the wifi network generated by the device DEVICED INFO -

Shows product version information

GRAPH – Shows data traffic in real time.

Setup menus

With the menu button at the top right you open the menu bar with the following entries

STATUS - It is the initial status page just seen in the previous chapter WIZARD - Activates the wizards to change the operating mode NETWORK - Shows and changes the network settings

USERS – Modify device access passwords SYSTEM – Allows maintenance operations

Operating modes

With the WIZARD button you can start the guided procedure to change the device operating mode. This operation modifies the factory functioning of the device and for this reason it is never recommended to carry it out unless with knowledge of the facts.
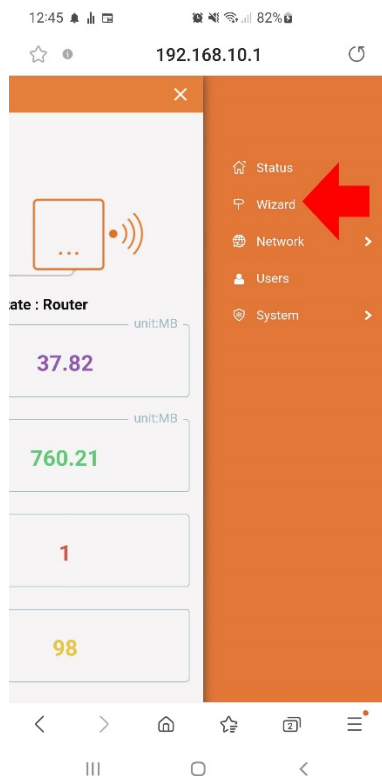
There are 4 operating modes: ROUTER, BRIDGE, AP, REPEATER

The ROUTER mode is active by default, which offers greater safety when used as a hot spot and it is advisable not to change.

ROUTER MODE
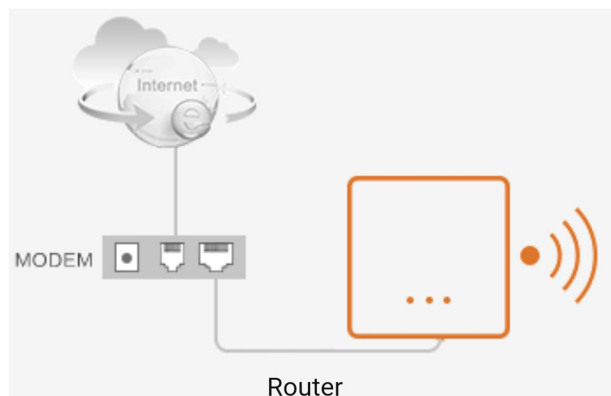
It is the factory mode. In this mode the device**connects to a wired network (port

WAN) and creates its own local wifi network with IP addresses of a different class than the main network. By default, in its internal network, the AP will assume the address 192.168.10.1 and will assign DHCP addresses with this class (192.168.10.xxx) to the devices that connect to its WiFi network or its LAN network port. If you connect the mobile phone to the wifi network of the AP you can check the IP address that has been assigned to you directly from the phone, as in the images below. Your phone will have an address like 192.168.10.xxx, which is different from the main wired network, but will still communicate to the internet because the AP acts as a router to the upstream network.
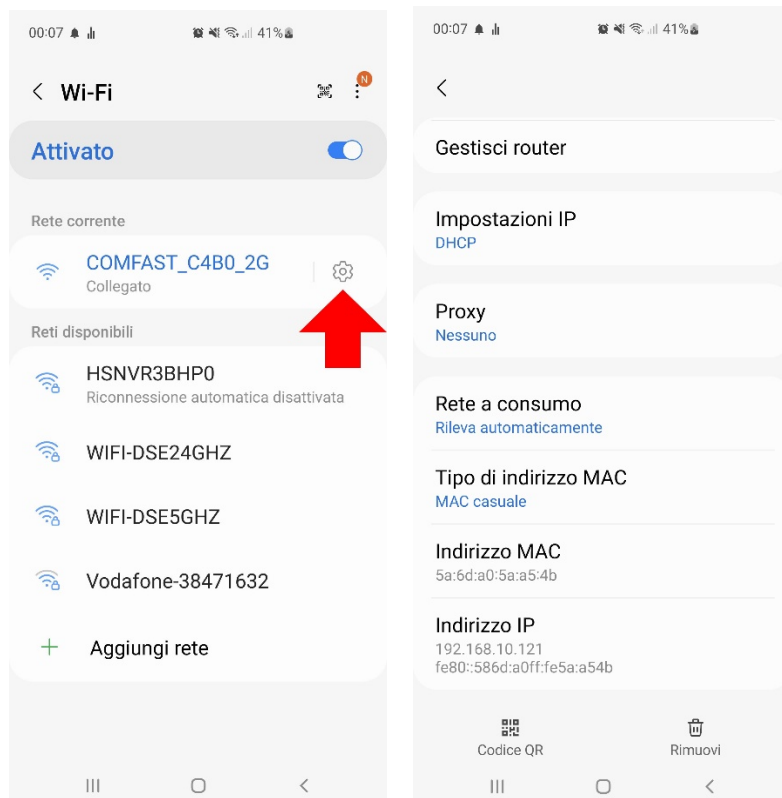

The router mode wizard allows you to configure:

1 – The network setting of the AP in the main wired network on the WAN port (fixed IP or DHCP or PPPoE supported). It is advisable to leave the DHCP default setting so that the AP receives an automatic IP from the router.

2 – The network setting of the AP in its local network (WiFi and LAN port). The factory setting is 192.168.10.1 and it is recommended not to change it unless strictly necessary.

3 – Setting up the wifi network generated by the AP by personalizing the name (SSID) and any password.

Once the router mode has been saved, you will be able to access the AP configuration by connecting to the AP and recalling its internal network address, factory default 192.168.10.1

OPEN MODE
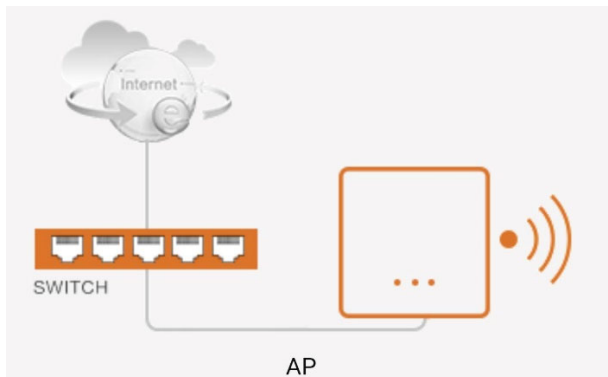
In this mode the device**connects to a wired network (WAN port) and creates its own local wifi network with the same class of IP addresses as the main network**. In this mode, the IP addresses of the devices connecting to the AP will be assigned in DHCP by the upstream router and not by the AP. In this mode you should assign the AP a valid fixed IP address on the main network (WAN) by checking the class using the router network and that the IP is available.

In the wizard you can set:

1 - the fixed IP of the device in the wired network connected to the WAN port (DHCP not supported in this mode). It is advisable to assign a valid IP address in the main network, first verifying that it is free. If instead you keep the factory IP, 192.168.10.1, the AP will still work, but you won't be able to easily access its configuration.

2 - Setting up the wifi network generated by the AP by personalizing the name (SSID) and any password.

Once the AP mode has been saved, you can access the AP configuration by typing in the browser the fixed IP address you assigned during configuration.

REPEATER MODE
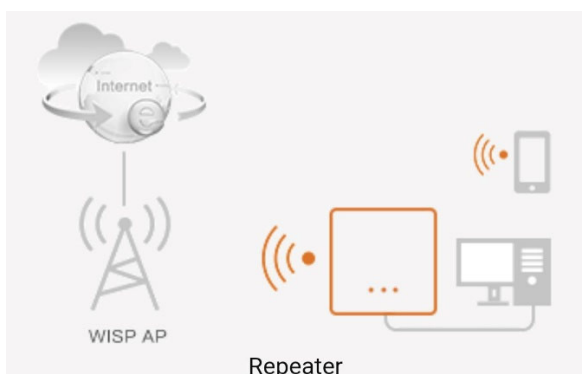
Choose this mode if you want to extend the range of a wifi network.

In this mode the device**connects to a WiFi network and creates its own WiFi network**

with IP addresses of a different class than the main network. By default the AP will have the address 192.168.10.1 and will assign DHCP addresses with this class 192.168.10...X to the devices that connect.

Normally when the device is used as a repeater it will not have a wired connection to the network and will be powered only with the POE injector included on the LAN or WAN port.

The wizard allows you to

1 – Configure the IP of the device that will be used for the wifi network of the repeater (default 192.168.10.1). Do not set a network segment address of the main WiFi network, the wifi network created by the repeater must be different. It is advisable to keep the default.

2 – Search and connect to the main incoming WiFi network

3 - Set the parameters of the WiFi network generated by the repeater by personalizing the name (SSID) and any password.

Once the REPEATER mode has been saved, you will be able to access the AP configuration by connecting to the AP and recalling its internal network address, factory default 192.168.10.1

BRIDGE MODE
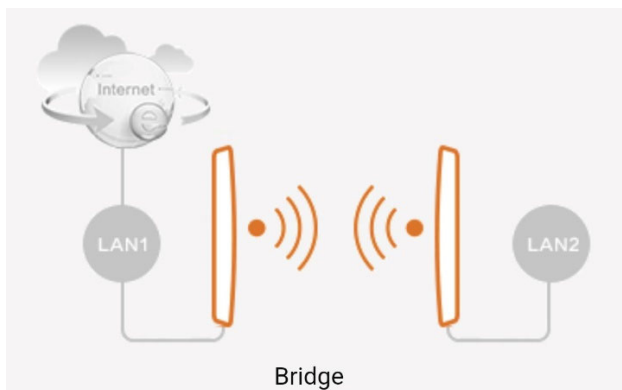
Bridge

Choose this mode if you want to create a wifi bridge to connect two networks together. In terms of addresses, a bridge behaves like a network cable, but with a transmitter and receiver instead of the cable. It is an application that is used, for example, if you need to connect a wired IP camera to a wifi network by interposing a wifi bridge.

To make this configuration you need 2 AP, as in the drawing above.

The AP connected to LAN1 is the transmitter and must be set in AP mode, while the second AP, connected to LAN2, is the receiver and must be set in BRIDGE mode.

In bridge mode the device**it connects to a main wifi network and creates its own wifi network and spins with the same IP address class as the wifi network**principal. In this mode, the IP addresses of the connecting devices will be assigned by the upstream router

and not from the AP.

All devices that will connect to the bridge, both via wifi and on the LAN network port, will have an address assigned by the upstream router as both the transmitting device in AP mode and the receiving device in BRIDGE mode will not intervene in assigning addresses .

Bridge mode is only able to work with APs equipped with Qualcomm chipsets and does not work with different chipsets. For this reason it is not advisable to use the bridge mode with a different device as a transmitter, such as a router for example, because it may not work.

If you create a wifi bridge you will first have to configure the element in AP mode, following the instructions seen above for this mode, and then the element in Bridge mode.
In this wizard you can:
1 – Set the address and subnet mask of the AP in the incoming WiFi network (DHCP not supported in this mode). It is advisable to assign a valid IP address in the main network first verifying that it is free, in this way you can easily access the configuration. Obviously do not assign the same IP that you have assigned to the other device in AP mode that makes up the bridge.

2 - Search and connect to the upstream wifi network. Select the other device's network, in AP mode, and enter the access password that you set in its configuration. 3 - Set the wifi network generated by the bridge device by personalizing the name (SSID) and any password.

Once the BRIDGE mode has been saved, you can access the configuration of the AP element and the Bridge element by typing in the browser the fixed IP addresses that you assigned them during configuration.