Tenda

Quick Installation Guide

500m Outdoor Point to Point CPE
Model: O1

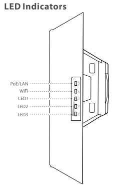
Package Contents

- CPE * 1
- PoE Injector * 1
- Power Adapter * 1
- Quick Installation Guide * 1
- Screw * 2 (Used to fix the PoE injector)
- Expansion Anchor * 2 (Used to fix the PoE injector)
- Pole Mounting Strap * 2

Please read this quick installation guide before you start. You can visit our website at *http://www.tendacn.com* for more information about the device.

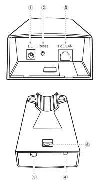
Get to Know the Devices

▶ LED Indicators



LED Indicator	Status	Description
PoE/LAN	Solid on	The power is supplied to the device properly, and no data is being transmitted.
	Blinking	The port is transmitting or receiving data.
	Off	No power is supplied to the device.
WiFi	Solid on	The wireless function is enabled, but no data are being transmitted.
	Blinking	Data is being transmitted in a wireless manner.
	Off	The wireless function is disabled.
LED1、LED2、LED3 (Signal Strength LED)	Solid on	The device is working in AP mode, and connected to a wireless client. • LED1, LED 2 and LED3 are solid on: Perfect Signal • LED1 and LED 2 are sold on, and LED 3 is off: Good signal • LED1 is solid on, and LED2 and LED3 are off: Weak signal. Please adjust the direction or location of the two devices.
	Blinking	The device is working in Client or WISP mode, and connected to a remote AP.
	Off	The device is not connected to a wireless client or a remote AP.

▶ Ports & Button



ID	Port/Button	Description
①	DC	Power Jack Connect the included power adapter to this jack to supply power to the device.
②	Reset	Reset Button After the device is powered on for 1 minute, hold down this button for 7 seconds. When all the LED indicators on the device light up, the device restores the factory settings.
③	PoE/LAN	PoE power input and data transmission port • If you use PoE power supply, you can use the included PoE injector to supply power to the device. • If you use the power adapter to power the device, you can connect this port to a switch.
④	/	Power cord inlet.
⑤	/	Ethernet cable inlet.
⑥	/	Button for opening the housing

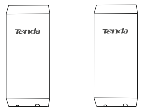
Application Scenario 1: CCTV Surveillance

1. Set up the Devices

Tips: At least two devices are required for bridging.

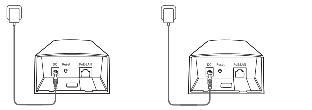
Method 1: Automatic Bridging (Recommended)

① Place the two devices next to each other, as shown in the following figure.

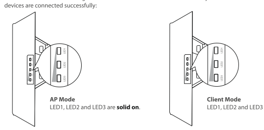


CPE 1　CPE 2

② Press and push the button on the rear panel of the device to open the housing, and use the included power adapters to power the two devices. Wait until the WiFi LED indicators of the devices turn on.



③ Wait for the two devices to negotiate and connect to each other automatically. The LED statuses are as follows if the devices are connected successfully:



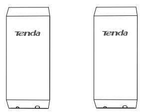
AP Mode
LED1, LED2 and LED3 are **solid on**.

Client Mode
LED1, LED2 and LED3 **blink**.

Note:
- Automatic Bridge is only applicable when the devices are in factory state, and the bridge process lasts less than 1 minute after the devices start.
- Automatic Bridge is only applicable to peer-to-peer bridging. If there are three or more powered devices nearby, automatic bridge fails. So if you want to perform peer-to-multi peer bridging, please refer to **Method 2: Set up the Devices Using Web UI**.
- If the bridging succeeds, the DHCP servers of the two devices are disabled, and the IP address of the device working in Client mode changes to 192.168.2.2.

Method 2: Set up the Devices Using Web UI

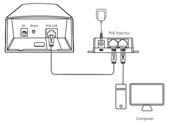
Step 1: Place the two devices close to each other.



CPE 1　CPE 2

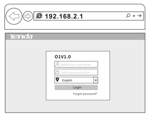
Step 2: Connect the computer to CPE 1.

① Press and push the button on the rear panel of the device to open the housing.
② Use an Ethernet cable to connect the **PoE/LAN** port of the device to the **PoE** port of the PoE injector.
③ Use the included power adapter to connect the PoE injector to a power socket. The **PoE/LAN** LED of the device lights up.
④ Use an Ethernet cable to connect your computer to the **LAN** port of the PoE injector.



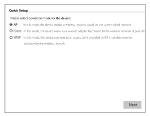
Step 3: Set CPE 1 to AP Mode.

① Start a web browser on your computer, and visit **192.168.2.1**. Enter your user name and password (default: **admin**), and click **Login**.

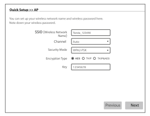


Tips:
If the preceding page does not appear, please refer to **Q1** in **FAQ**.

② Select **AP**, and click **Next**.



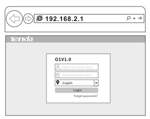
③ Set an SSID, which is Tenda_123456 in this example, security mode (WPA2-PSK is recommended), and Key, and click **Next**.



④ Click **Save**, and wait until the device reboots automatically to activate the settings.

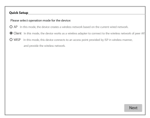
Step 4: Set CPE 2 to Client Mode.

① Perform the procedure in **Step 2** to connect the computer to CPE 2.
② Start a web browser on your computer, and visit **192.168.2.1.** Enter the login user name and password (both are **admin** by default), and click **Login**.

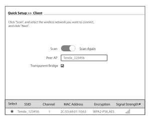


Tips:
If the preceding page doesn't appear, please refer to **Q1** in **FAQ**.

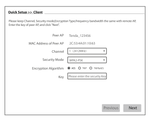
③ Select **Client**, and click **Next**.



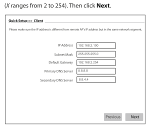
④ Select the SSID you set on CPE 1, which is Tenda_123456 in this example, and click **Next**.



⑤ Enter the WiFi password you set on CPE 1 in the **Key** text box, and click **Next**.



⑥ Set the IP address to an unused IP address belonging to the same network segment as that of CPE 1. For example, if the IP address of CPE 1 is 192.168.2.1, you can set this device's IP address to 192.168.2.*X* (*X* ranges from 2 to 254). Then click **Next**.



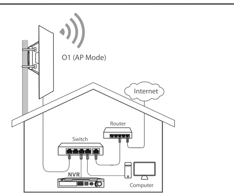
⑦ Click **Save**, and wait until the device reboots to activate the settings.
When LED1, LED2, and LED3 of CPE 1 are solid on, and LED1, LED2, and LED3 of CPE 2 blink, the bridge succeeds.

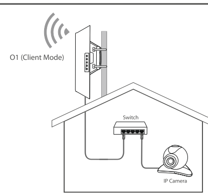
2. Install the Devices

- The device (transmitter in AP mode) with LED1, LED2 and LED3 solid on should be connected to the switch connecting to a network video recorder (NVR).
- The device (receiver in Client mode) with LED1, LED2 and LED3 blinking should be connected to the switch connecting to a monitoring IP camera.

Detailed procedures are as follows:

① Place the transmitter in the open air at the point where the NVR is located. Place the receiver in the open air at the point where the IP camera is located.
② Open the housings of the two devices, and connect the **PoE/LAN** ports of the devices to PoE injectors respectively. The PoE/LAN LED indicators light up.
③ Adjust the two devices' direction or location until the LED1, LED2 and LED3 of the two devices light up.
④ Use the pole mounting straps to attach the two devices to the poles.



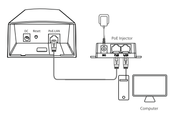


Application Scenario 2: Wireless ISP Hotspot Access

1. Set up the Device

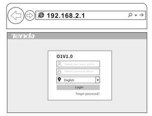
Step 1: Connect the computer to the device.

① Press and push the button on the rear panel of the device to open the housing.
② Use an Ethernet cable to connect the **PoE/LAN** port of the device to the **PoE** port of the PoE injector.
③ Use the included power adapter to connect the PoE injector to a power socket. The **PoE/LAN** LED of the device lights up.
④ Use an Ethernet cable to connect your computer to the **LAN** port of the PoE injector.



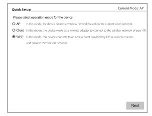
Step 2: Set the device to WISP Mode.

① Start a web browser on your computer, and visit **192.168.2.1**. Enter your user name and password (default: **admin**), and click **Login**.

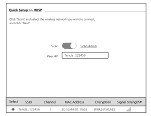


Tips:
If the preceding page does not appear, please refer to **Q1** in **FAQ**.

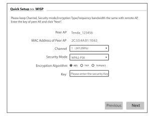
② Select **WISP**, and click **Next**.



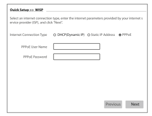
③ Select the SSID of your ISP (Internet Service Provider) hotspot, which is Tenda_123456 in this example, and click **Next**.



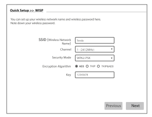
④ Enter the WiFi password of your ISP (Internet Service Provider) hotspot in the **Key** text box, and click **Next**.



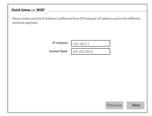
⑤ Select the Internet Connection Type of your ISP hotspot. We take PPPoE as an example here. Enter the PPPoE user name and password provided by your ISP, and click **Next**.



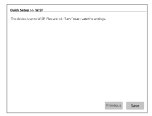
⑥ Customize the SSID and Key, and click **Next**.



⑦ Set an IP address belonging to different network segment as that of your ISP hotspot. For example, if the IP address of your ISP hotspot is 192.168.2.1, you can set this device's IP address to 192.168.*X*.1 (*X* ranges from 0 to 254 except 2). Then click **Next**.

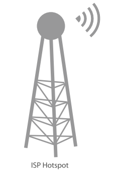


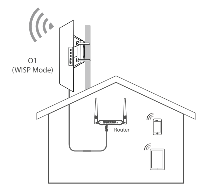
⑧ Click **Save**, and wait until the device reboots to activate the settings.
When LED1, LED2, and LED3 of the device blink, the device is connected to your ISP hotspot successfully.



2. Install the Devices

① Place the device at an open air.
② Open the housings of the device, and connect the PoE/LAN port of the device to the WAN port of your wireless router. The PoE/LAN LED indicator lights up.
③ Adjust the device's direction or location on the selected pole until the LED1, LED2 and LED3 of the device light up.
④ Use the pole mounting straps to attach the device to the pole.





FAQ

Q1: I cannot log in to the web UI of the device by entering 192.168.2.1. What should I do?

- Try the following methods and try again:
- Ensure that the device has been connected to the power supply and the login computer properly.
- Ensure that the IP address of the login computer is 192.168.2.*X* (*X* ranges from 2 to 254).
- Reset the device to factory settings.

Q2: How to reset the device to factory settings?

- **Note: Resetting the device will clear all settings, and you need to configure it again.**
- **Method One**: 1 minute after the device is powered on, open the housing of the device, and hold down
- the **Reset** button for 7 seconds. When all LEDs light up, the device is restored to factory settings.
- **Method Two**: Log in to the web UI of the device, click **Tools > Maintenance,** and click **Reset** button.

Q3: How to perform peer-to-multi peer bridging?

Step 1 Log in to the web UIs of these devices (refer to Method 2: Set up the Devices Using Web UI for details).
Step 2 Set the device connected to NVR to AP mode, and set the other connected to IP cameras to Client mode.

Q4: How to determine whether the bridging signal is optimum when the devices are used for CCTV Surveillance?

Log in to the web UI of one device, and check the status on the following page:

Wireless Status

Working Mode	Client	MAC Address of Peer AP	2C:53:4A:01:10:63
SSID	N/A	Signal Strength	-48dBm
Security Mode	N/A	Background Noise	-83dBm
Channel/Radio Band	1/2412	TX/RX Link	2X2
Number of Wireless Clients	N/A	Transmit/Receive Rate	52Mbps/1Mbps

Adjust the horizontal and vertical positions of the device and check Signal Strength and Background Noise. Stronger signal strength and less background noise (-100 is better than -90) lead to better bridging signal.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.For Pluggable Equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.
WARNING: The mains plug is used as disconnect device, the disconnect device shall remain readily operable.
NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.

Declaration of Conformity

Hereby, SHENZHEN TENDA TECHNOLOGY CO., LTD. declares that the radio equipment type O1 is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address:
http://www.tendacn.com/en/service/download-cata-101.html
Operate Frequency: EU/2400-2483.5MHz (CH1-CH13)
EIRP Power (Max.): 19.8 dBm
Software Version: V1.0.0.7

Caution:

Adapter Model: BN049-A05009E, BN049-A05009B
Manufacture: SHENZHEN HEWEISHUN NETWORK TECHNOLOGY CO., LTD.
Input: 100-240 V AC, 50/60 Hz 0.3 A
Output: 9 V DC, 600 mA
⎓: DC Voltage

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules.

Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.
This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

RECYCLING

This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment. User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.

Operating Temperature: -30 °C - 55 °C
Operating Humidity: (10% - 90%) RH, non-condensing

Technical Support
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6-8 Floor, Tower E3, NO.1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052
USA hotline: 1-800-570-5892　Canada hotline: 1-888-998-8966
HongKong Hotline: 00852-81931998　Website: http://www.tendacn.com
E-mail: support@tenda.com.cn

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