TP-LINK®

Quick Installation Guide

2.4GHz 150Mbps Outdoor Wireless Access Point

MODEL NO. **TL-WA7210N**

Package Contents

TL-WA7210N

QIG

Passive PoE Injector

Power Adapter

Resource CD

Ethernet Cable

Mounting Kits

Typical Network

TL-WA7210N is used for remote point-to-point and point-to-multipoint applications. It makes remote Internet share possible.

AP   Client

Point-to-Point Application

AP   Client 1

Client 2

Client 3

Point-to-Multipoint Application
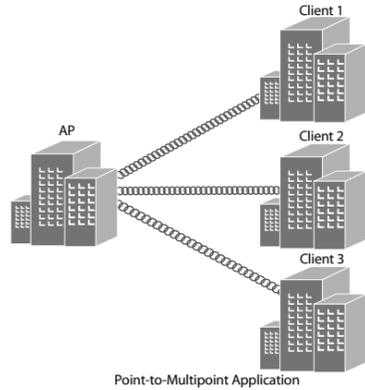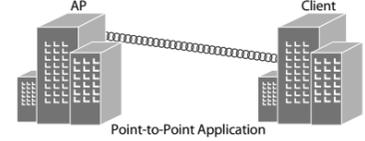
⚠ **Note** The typical connection for TL-WA7210N is shown as above. Please make sure that the two CPEs are placed **face to face**, otherwise, the wireless signal strength might be weak. The figures shown below are a few examples, and only the first one is **correct**.

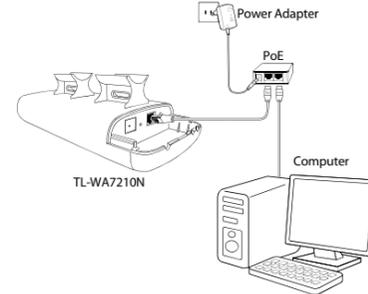⚠ **Note** If you are using an external antenna to connect, please refer to **Appendix 1**.

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1 Connecting the Device

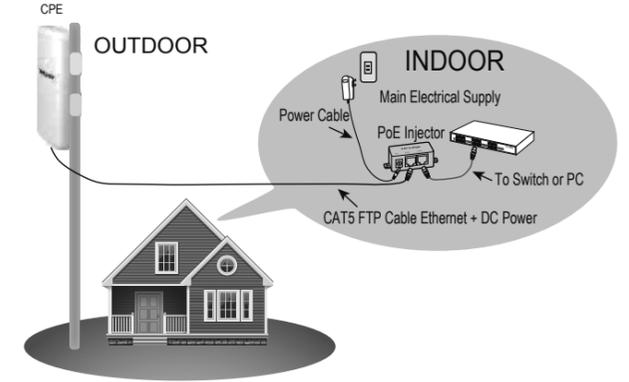Please use only wired network connection to configure the AP.

❶ Locate a suitable mounting site for your CPE. To achieve the best performance of the devices, please select an elevated location where trees, buildings and large steel structures will not obstruct the antenna signals and which offers maximum line-of-sight propagation for the devices.

❷ Adjust the direction of your CPE for a best signal. Place the straps through the slots on the back of the CPE and then around the pole. Tighten the straps.
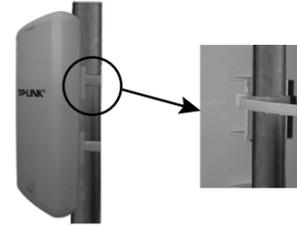
❸ Connect one end of an Ethernet cable to the PoE port of the provided PoE and the other end of the Ethernet cable to the LAN port of the CPE. Then, connect the LAN port of the PoE to a PC using another Ethernet cable. Finally, plug the provided power adapter into the DC jack on the PoE, and the other end to a standard electrical wall socket.

Power Adapter
PoE
TL-WA7210N
Computer

❹ The connection will be similar to the figure below after the above steps are finished.

CPE
OUTDOOR
INDOOR
Main Electrical Supply
Power Cable
PoE Injector
To Switch or PC
CAT5 FTP Cable Ethernet + DC Power

❺ Turn on all your network devices and then check to see if the LEDs on the AP display normally as the diagram below describes.

PWR   LAN   Wireless Signal Strength

Solid light   Solid light
Solid light or flashing
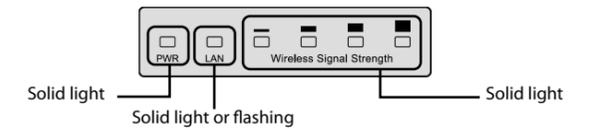
⚠ **Note** If the LEDs display abnormally, please check to see if all the cable connectors (power adapter and Ethernet cable) are well connected to your devices.

❻ If you use two CPEs to build the network, please make sure that the two CPEs are placed **face to face**. Please refer to the **Antenna Alignment** to get the optimum signal.
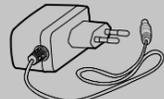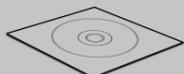
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2 Configuring the Computer

Assign a static IP address 192.168.0.100 for your computer first **before** logging in the management page. Here we take the procedures in Windows 7 for example.
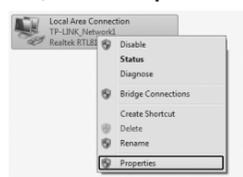
❶ Go to **Start** > **Settings** > **Control Panel**, and then you will see the following page. Click **View network status and tasks**.

❷ Click **Change adapter settings**.

❸ Right-click **Local Area Connection**, then click **Properties**.

❹ Double-click **Internet Protocol Version 4 (TCP/IPv4)**.

❺ Select **Use the following IP address**, enter 192.168.0.100 into the **IP address** field and 255.255.255.0 into the **Subnet mask** field.

❻ Click **OK** to save the configurations for your computer.

⚠ **Note** Please reconfigure your computer **after** successfully configuring the CPE. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically** in **step 5**, then click **OK**.
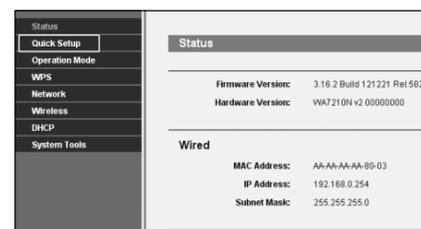
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3 Configuring the Device

❶ Open your web browser, type in **http://192.168.0.254** in the address field and press **Enter**.

❷ A dialog box will prompt you for the **User name** and **Password**. Enter the default values (both are **admin**) and click **OK**.

Windows Security

The server 192.168.0.254 at TP-LINK Outdoor Wireless Access Point WA7210N requires a username and password.

Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).

User name
Password
☐ Remember my credentials
OK   Cancel

⚠ **Note**
1. If the dialog box does not pop up, please refer to **T3** in the **Appendix 2: Troubleshooting**. Also, **T2** will give you some help if you forget the password.
2. If the device has been restored, the **Welcome** page will appear, please read the **TERMS OF USE** carefully. Then select **I agree to these terms of use** and click **Login** to continue.
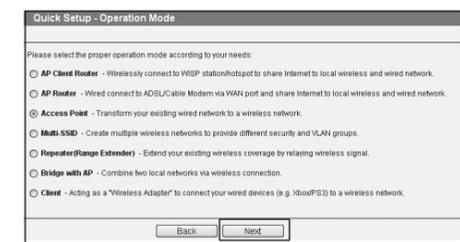
❸ The web management page will display after your successful login. Click **Quick Setup** in the main menu.

Status

Firmware Version: 3.16.2 Build 121221 Rel 58229n
Hardware Version: WA7210N v2 00000000

Wired
MAC Address: AA-AA-AA-AA-00-03
IP Address: 192.168.0.254
Subnet Mask: 255.255.255.0

❹ Then the page below will appear. Click **Next**.

Quick Setup

The quick setup will tell you how to configure the basic network parameters.
To continue, please click the **Next** button.
To exit, please click the **Exit** button.

Exit   Next

❺ Select the **Operation Mode Type** according to your needs. Click **Next**.

Quick Setup - Operation Mode

Please select the proper operation mode according to your needs:
○ **AP Client Router** - Wirelessly connect to WISP station/hotspot to share Internet to local wireless and wired network.
○ **AP Router** - Wired connect to ADSL/Cable Modem via WAN port and share Internet to local wireless and wired network.
○ **Access Point** - Transform your existing wired network to a wireless network.
○ **Multi-SSID** - Create multiple wireless networks to provide different security and VLAN groups.
○ **Repeater(Range Extender)** - Extend your existing wireless coverage by relaying wireless signal.
○ **Bridge with AP** - Combine two local networks via wireless connection.
○ **Client** - Acting as a "Wireless Adapter" to connect your wired devices (e.g. Xbox/PS3) to a wireless network.

Back   Next

a) If you want to set up a point-to-point connection with TL-WA7210N, please skip to **Configuration for Point-to-Point Connection**. In this part, you will learn about the configuration for **Access Point** and **Client** mode.

b) If you want to set the CPE to the **Bridge with AP** mode, please skip to **Configuration for Bridge with AP**.

⚠ **Note** For configuration for other modes of TL-WA7210N, please refer to the **User Guide** in the resouce CD.

Configuration for Point-to-Point Connection

Two devices are needed for this application.

The AP Setting

❶ Select **Access Point** for the operation mode, then click **Next**.

❷ Create an easy-to-remember name for your wireless network. Here we take **TP-LINK_211010** for example. Select **Most Secure (WPA/WPA2-PSK)** mode and enter a wireless password below to prevent unauthorized access to your AP. Click **Next**.

❸ The Network Setting page will appear then. It is recommended that you keep the default settings on this page. Click **Next**.

❹ Please confirm the configurations you have set, then click **Finish/Reboot** button to make all configuraions take effect. If anything is wrong, please go **BACK** to reset.

❺ After successfully logging in, configure the other TL-WA7210N according to **The Client Setting**.

Configuration for Bridge with AP

❶ Select **Bridge with AP** for the Operation Mode, then click **Next**.

❷ Click **Survey** button to scan the wireless networks, choose the remote AP that you want to combine with, enter the password of the remote network, then click **Next**.
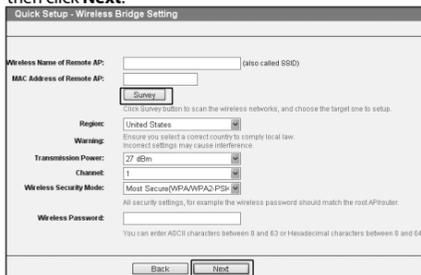
❸ Create a name for the Local Wireless Network. The security settings for the local network will be set the same as the remote AP by default. Click **Next**.


The Client Setting

❶ Select **Client** for the operation mode, then click **Next**.

❷ Click **Survey** button to scan the wireless networks, and choose the SSID (**TP-LINK_211010**) of the first AP you have configured. Click **Next**.

❹ The Network Setting page will appear then. Check the **Lan IP Address** of the device to make sure that there's no IP conflict in the network and click **Next** to continue.
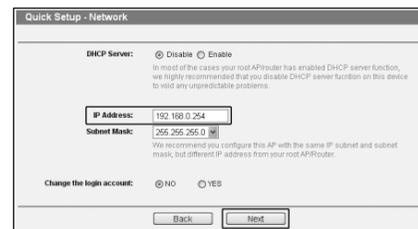
❺ Please confirm the configurations you have set, then click **Finish/Reboot** button to make all configuraions take effect. If anything is wrong, please go **BACK** to reset.

❸ Change **LAN IP Address** of the Client from 192.168.0.254 to 192.168.0.X (X can be any number from 2 to 253) to avoid an IP conflict with the root AP. Here we take 192.168.0.2 for example. Click **Next**.

❹ Please confirm the configurations you have set, then click **Finish/Reboot** button to make all configuraions take effect. If anything is wrong, please go **BACK** to reset.

Antenna Alignment

After basic configuration of operation mode, click **Wireless** > **Antenna Alignment**, you can change your CPE's direction according to the parameters shown in this page to get a better signal strength.
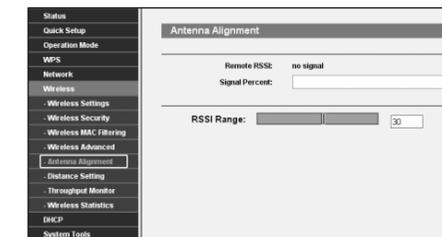

Appendix 1: External Antenna Installation

External Antenna Connection

If you have an external antenna with the RP-SMA(female) port, you could connect it to the RP-SMA port of your CPE directly.

If you don't have any external antennas, you are recommended to use TP-LINK products for outdoor solution. You could choose TL-ANT2424B (external antenna), TL-ANT24SP (Surge Protector), and TL-ANT200PT (Pigtail Cable) to connect as the following steps:
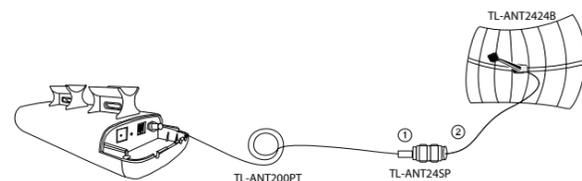

❶ Connect one side of the TL-ANT24SP to the RP-SMA port of your CPE through the TL-ANT200PT.

❷ Connect the other side of the TL-ANT24SP to the TL-ANT2424B.

Configure the External Antenna

⚠ **Note** You will need to assign your computer a Static IP address within the same range as the AP's IP address. See the **Appendix 2: Troubleshooting - T3** if you need assistance.

❶ Open your web browser, type in **http://192.168.0.254** in the address field and press **Enter**.

❷ A dialog box will prompt you for the **User name** and **Password**. Enter the default values (both are **admin**) and click **OK**.

❸ Configure the External Antenna. Click **Wireless** >**Wireless Advanced**, select **External Antenna**, then click **Save**.
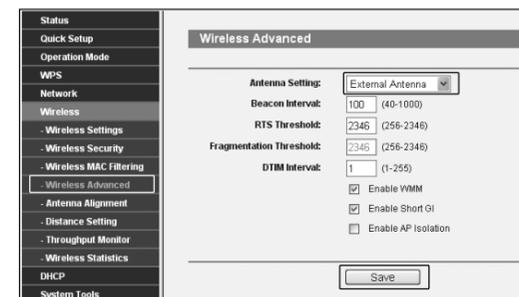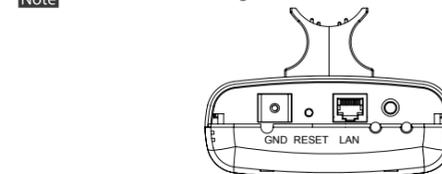

Appendix 2: Troubleshooting

T1. How do I restore my AP's configuration to its factory default settings?

With the AP powered on, press and hold the **RESET** button for about 8 seconds before releasing it.

⚠ **Note** Once the AP is reset, the current configuration settings will be lost and you will need to reconfigure the router.

T2. What can I do if I forget my password?

1) Restore the AP's configuration to its factory default settings. If you don't know how to do that, please refer to previous section **T1**;
2) Use the default user name and password: admin, admin;
3) Try to reconfigure your AP by following the instructions of this QIG.

T3. What can I do if I cannot access the web-based configuration page?

Restore the AP's configuration to its factory default settings according to previous section **T1**, then assign a static IP address 192.168.0.100 for your computer following the steps below or referring to **2 Configuring the Computer**.

For Windows 7 OS
Go to **Start** > **Settings** > **Control Panel**. Click **View network status and tasks** > **Change adapter settings**, right-click **Local Area Connection**, select **Properties** and then double-click **Internet Protocol Version 4 (TCP/IPv4)**. Select **Use the following IP address**, enter 192.168.1.100 into the **IP address** field, 255.255.255.0 into the **Subnet mask** field, select **Use the following DNS server addresses**, enter the DNS server address provided by your ISP or network administrator. Click **OK**.

For Windows XP OS
Go to **Start** > **Control Panel**. Click **Network and Internet Connections** > **Network Connections**, right-click **Local Area Connection**, select **Properties** and then double-click **Internet Protocol (TCP/IP)**. Select **Use the following IP address**, enter 192.168.1.100 into the **IP address** field, 255.255.255.0 into the **Subnet mask** field, select **Use the following DNS server addresses**, enter the DNS server address provided by your ISP or network administrator. Click **OK**.