

# **DrayTek**

## VigorAP 912C

802.11ac Ceiling-mount AP



QUICK START GUIDE

V1.0

# VigorAP 912C

## 802.11ac Ceiling-mount Access Point

### Quick Start Guide

Guide Version: 1.0

Region: United Kingdom & Ireland

For updates and support, visit [www.draytek.co.uk](http://www.draytek.co.uk)

October 2019 / Firmware V1.3.0

**Note: Product specification is subject to continuous evolution which may not always be reflected in current documentation. For the formal specification and details of the supported features of your product, please refer only to the web site at [www.draytek.co.uk](http://www.draytek.co.uk)**

#### Warranty

We warrant to the original end user (purchaser) that the access point will be free from any defects in workmanship or materials for a period of two (2) years from the date of purchase from a DrayTek authorized dealer in the UK/Ireland. Please keep your purchase receipt in a safe place as it serves as proof of date of purchase. During the warranty period, and upon proof of purchase, should the product have indications of failure due to faulty workmanship and/or materials, we will, at our discretion, repair or replace the defective products or components, without charge for either parts or labour, to whatever extent we deem necessary to restore the product to proper operating condition. Any replacement will consist of a new or re-manufactured functionally equivalent product of equal value, and will be offered solely at our discretion. This warranty will not apply if the product is modified, misused, tampered with, damaged by external factors, used with unapproved accessories or subjected to abnormal working conditions. Warranty applies to hardware only, not software or firmware. Defects which do not significantly affect the usability of the product will not be covered by the warranty. We reserve the right to revise the manual and online documentation and to make changes from time to time in the contents hereof without obligation to notify any person of such revision or changes.

## European Community Declarations

Manufacturer: DrayTek Corp.  
Address: No. 26, Fu Shing Road, HuKou Township, HsinChu Industrial Park, Hsin-Chu, Taiwan  
303  
Product: VigorAP 912C

DrayTek Corp. declares that the radio equipment type VigorAP 912C is in compliance with the following essential requirements and other relevant provisions of RED 2014/53/EU, ErP 2009/125/EC and RoHS 2015/863/EU, Electro-Magnetic Compatibility (EMC) Directive 2014/30/EU by complying with the requirements set forth in EN55032/Class B, Low Voltage (LVD) Directive 2014/35/EU by complying with the requirements set forth in EN62368.

Importer: SEG, 11 Capital Business Park, Borehamwood, Hertfordshire WD6 1GW.  
The VigorAP 912C is designed for 2.4GHz and 5GHz WLAN network use in the UK & Ireland.



### Join the UK mailing list

Users in the UK & Ireland can sign up to our mailing list which goes out approximately 4 times per year with products news, updates, hints & tips and offers. For details, please visit [www.draytek.co.uk/list](http://www.draytek.co.uk/list)

### Firmware & Tools Updates

Due to the continuous evolution of DrayTek technology and emerging risks, router firmware updates may be issued. Please consult the DrayTek web site for more information on newest firmware, tools and documents: [www.draytek.co.uk](http://www.draytek.co.uk) (For UK/Ireland)

## Regional and Network Compatibility

For all models, please check that you have been supplied with a device intended for your geographic region and networks. Hardware and software varies by region, as well as local support and warranty services. To be sure of compatibility and local support, ensure that you are buying the correct product through authorized channels. The outside of the product's box will state the region compatibility (e.g. "Applied Region: UK"). If you are unsure, check with DrayTek or your supplier. The use of unofficial components (e.g. PSUs) or adapting interfaces or the use of unauthorized software/firmware may cause malfunction, product damage or personal danger and invalidates your warranty and access to support services.

## **CE Declaration of Conformity**

Hereby, DrayTek Corporation declares that the radio equipment type VigorAP 912C 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.draytek.com.tw/ftp/VigorAP 912C/Document/CE/](http://www.draytek.com.tw/ftp/VigorAP_912C/Document/CE/)

Manufacturer: DrayTek Corp.

Address: No. 26, Fu Shing Road, HuKou Township, HsinChu Industrial Park, Hsin-Chu County, Taiwan 303

Product: VigorAP 912C

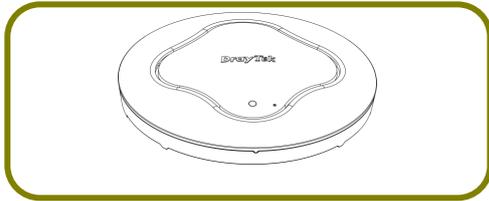
### **Frequency Information for Europe area:**

2.4G WLAN	2412MHz - 2472 MHz, max. TX power: 19.98dBm
5G WLAN	5160MHz - 5340 MHz, max. TX power: 22 dBm ; 5480MHz - 5720 MHz, max. TX power: 27.13 dBm

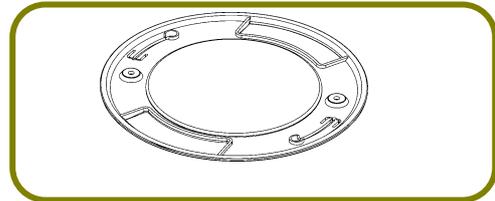
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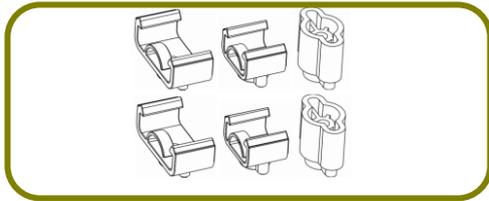
# 1. Package Contents



VigorAP 912C Main Unit



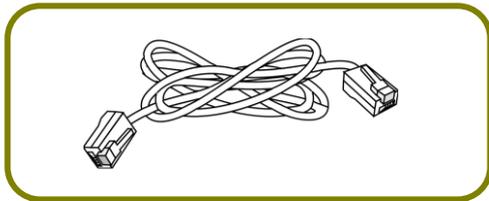
Ceiling mount bracket &



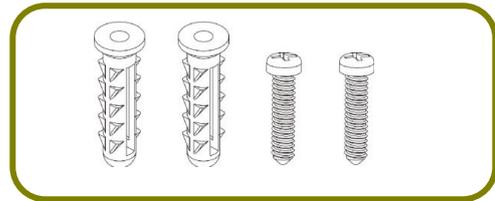
T-Rail Mounting Kits  
(Used for suspended ceiling)



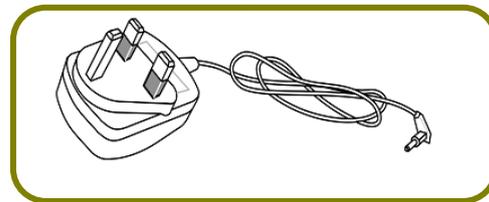
Fixings and Screws  
(for ceiling mounting)



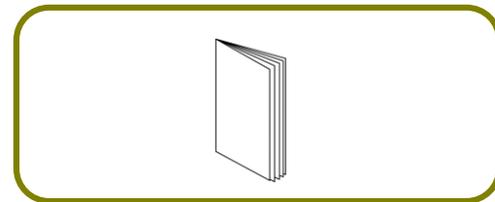
RJ-45 Cable (Ethernet)



Screw set (for wall mounting)



UK-type power adapter



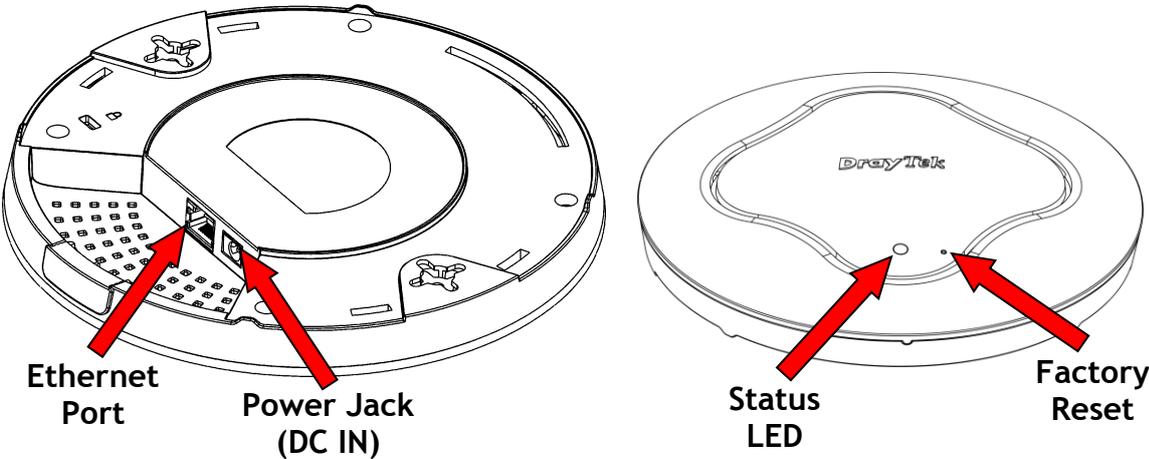
Quick Start Guide



## Note

- Keep mounting accessories away from children.
- You should only use the supplied power supply (as shown above). If you have lost or damaged any components or accessories, obtain original DrayTek replacements only as they are safety approved/tested and should ensure that your unit operates correctly. Contents shown may vary.
- Remove the protective film from the access point before use to ensure ventilation.
- The maximum power consumption is 10 Watt.

# 2. Product Layout



LED	Status	Explanation
Blue LED	On	The VigorAP is starting up
	Blinking	The VigorAP is ready and operating normally
Green LED	Blinking	System is in Mesh mode or Range Extender mode and works normally
Orange LED	Blinking	The VigorAP is in TFTP or Firmware Recovery mode
Off	Off	VigorAP is turned off or not functioning
Interface		Explanation
Ethernet Port		Connects to LAN switch or router Supports PoE power & Gigabit (1000BaseT).
Power Jack (DC IN)		Connector for a power adapter
Hole		Explanation
Factory Reset		Restores the unit back to factory default settings. To use, insert a small item such as an unbent paperclip into the hole. You will feel the button inside depress gently. Hold it for 5 seconds. The VigorAP will restart with the factory default configuration and the LED will blink blue.

## 3. Installation

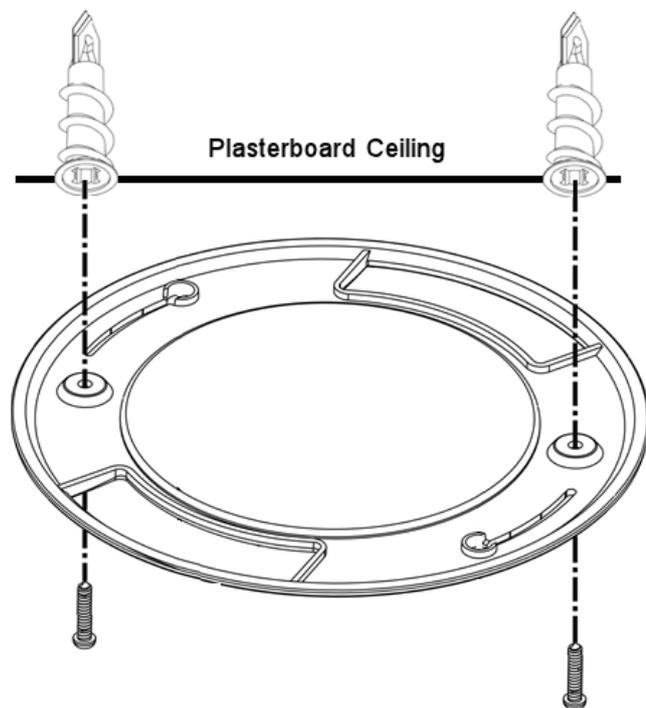
Your VigorAP can be fitted to walls or ceilings and with the cable entry being from behind or from the side. Due to the optimized signal pattern, we do not recommend placing the VigorAP horizontally on a desk or shelf. Run your cables **before** you fit the VigorAP or bracket to the ceiling/wall.

### 3.1 Ceiling-mount Installation

For a **wooden** ceiling, you can use self-tapping screws to fix the mounting bracket without any other fixings. The screws go through the bracket and then directly into the wood; no 'wall-plug' fixing needs to be used.

For ceilings made of **plasterboard**, you can use the self-tapping fixings. Hold the bracket up to the ceiling to mark the locations for the screw holes with a pencil then set the bracket aside.

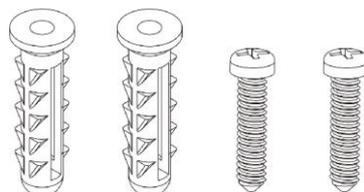
Hammer the fixings lightly to allow the sharp end to penetrate the plaster and start the hole, then gently screw the fixing into the plasterboard with a manual, not electric, screwdriver (seek professional help if you are not experienced with these fixings).



For solid ceilings (e.g. concrete) you will need to assess and provide appropriate fixing hardware; this is not included with the product.



**Warning: The screw set shown below is for wall mounting only. Do not use it for ceilings as it may not provide adequate support.**

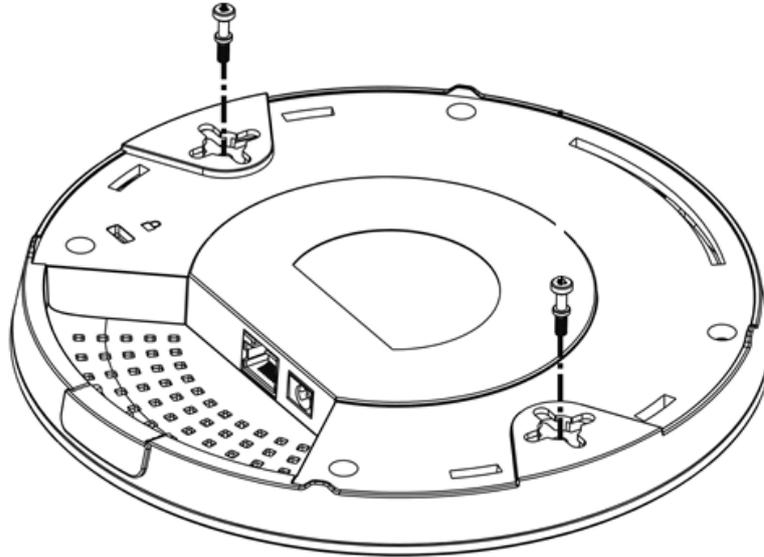


With all types of fixing, during installation, always use appropriate personal safety protection and check for visible or hidden hazards (cables, joists, pipes) before drilling or fixing.

Consult a qualified installer if you are not experienced.

## 3.2 Attaching VigorAP to the ceiling bracket

Install the supplied screws into the back of the AP. These special screws protrude from the back of the AP, leaving a bayonet type fitting to attach to the bracket:

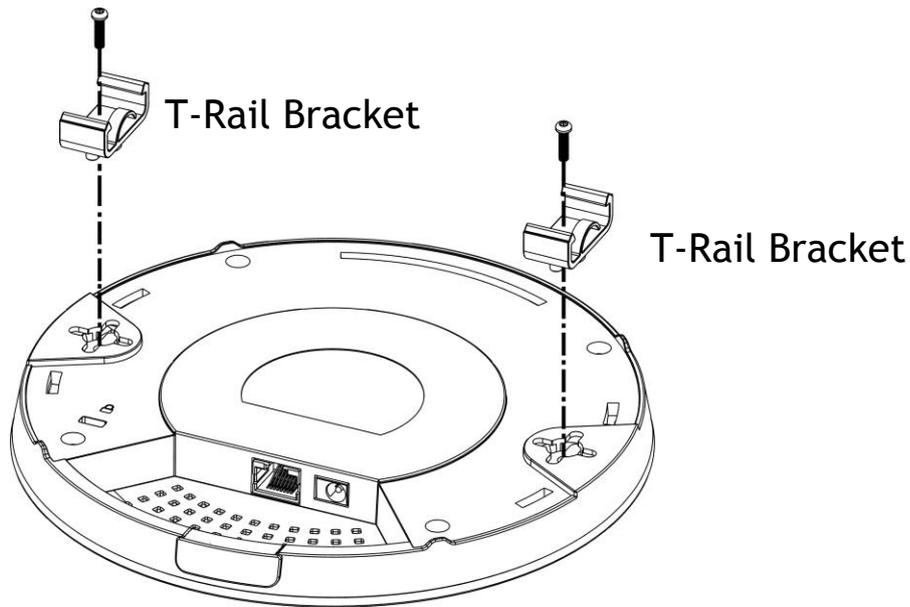


Lift the VigorAP up to the bracket and connect up the power and Ethernet cables. Line up the fixing screws and gently rotate the AP in order that the bayonets connect and ensure a comfortable fit into the slots.

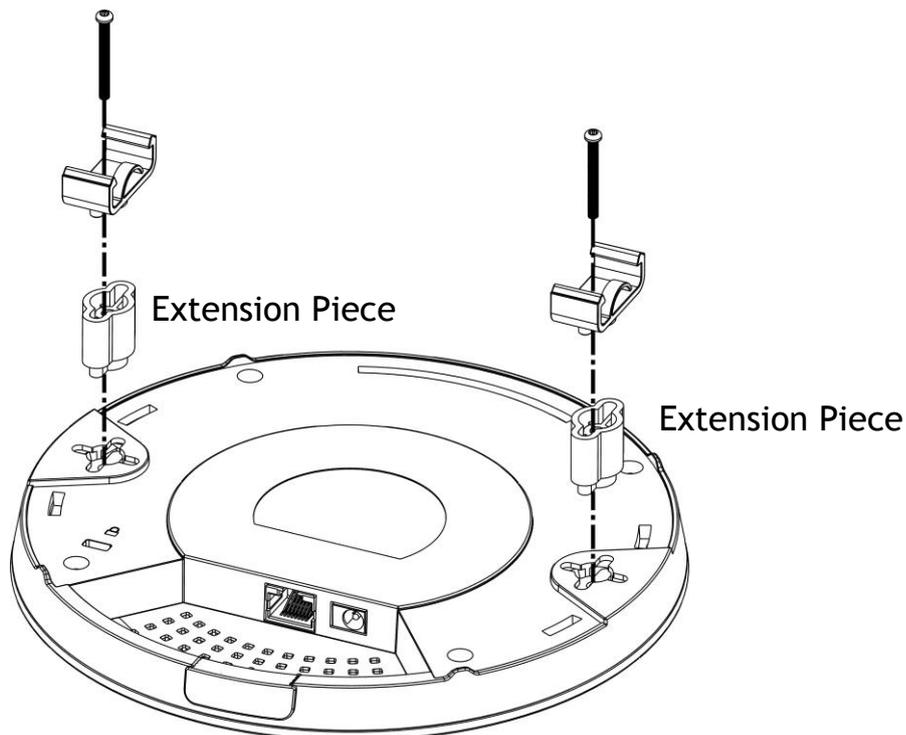
### 3.3 Suspended ceiling (lightweight steel frame)

You cannot screw into ceiling tiles as they are weak and not suitable for bearing loads. Your VigorAP is supplied with mounts (T-Rail brackets) which attach directly to the metal grid ('T-Rail') of your suspended ceiling.

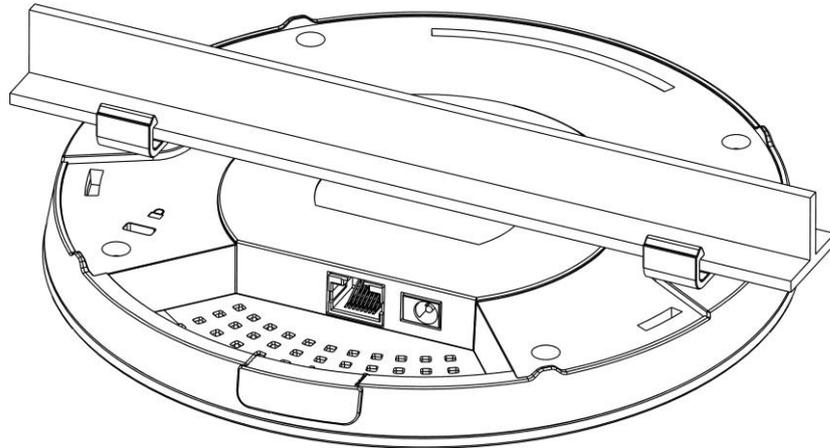
1. Choose one set of T-Rail mounts to suit the size (gauge) of your T-rail.
2. Fix the mounts into the underside of the VigorAP with the supplied screws:



3. If a larger gap is required between the ceiling and the VigorAP, use the extension pieces to extend the height of the brackets.



4. Attach the T-Rail brackets to the ceiling frame:



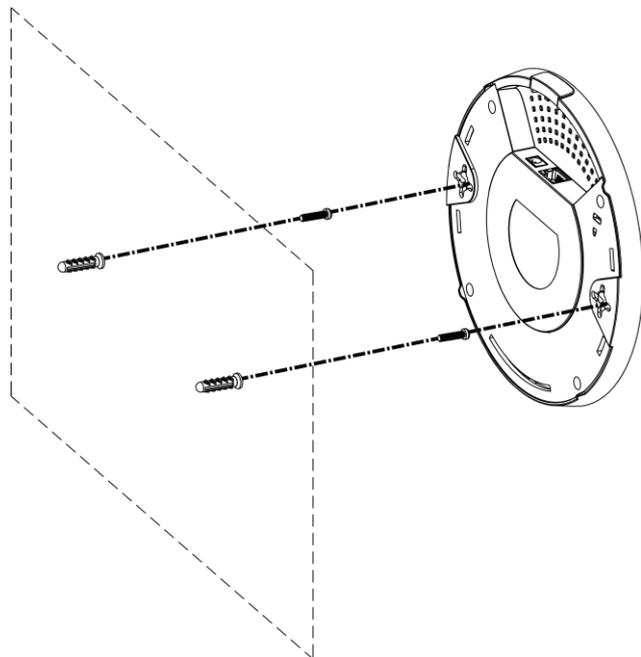
### 3.4 Wall Mounting

For **wall-mounting**, the VigorAP has keyhole type mounting slots on the underside.

You can fit the AP at any axis (i.e. 12, 3, 6 or 9 O'Clock) to allow for cable entry from the most convenient location if you are using side entry - note the position of the side entry cable cutout.

A printed template is provided on the VigorAP's packaging box to enable you to space the screws correctly on the wall.

Fit screws into the wall using the appropriate type of wall plug but do not use the ceiling bracket - the VigorAP hangs onto the screws.

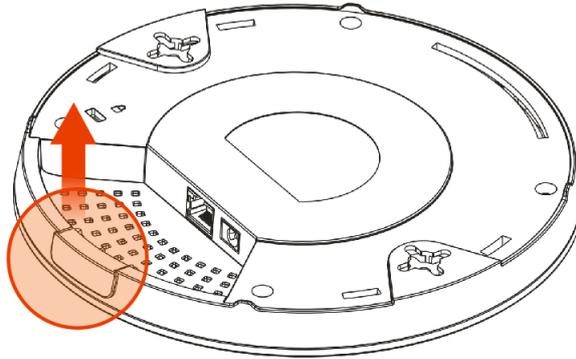


Wall Mounting

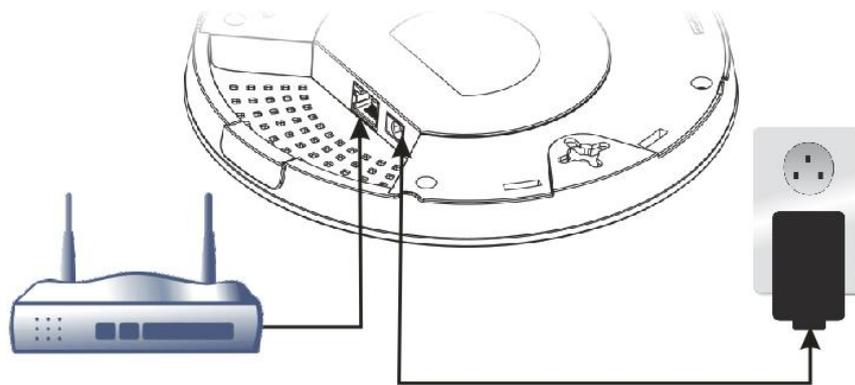
## 4. Connection and Configuration

### 4.1 Connecting Cables to the VigorAP

- If required, remove the protective cap of VigorAP to create extra space for the cables to pass through.

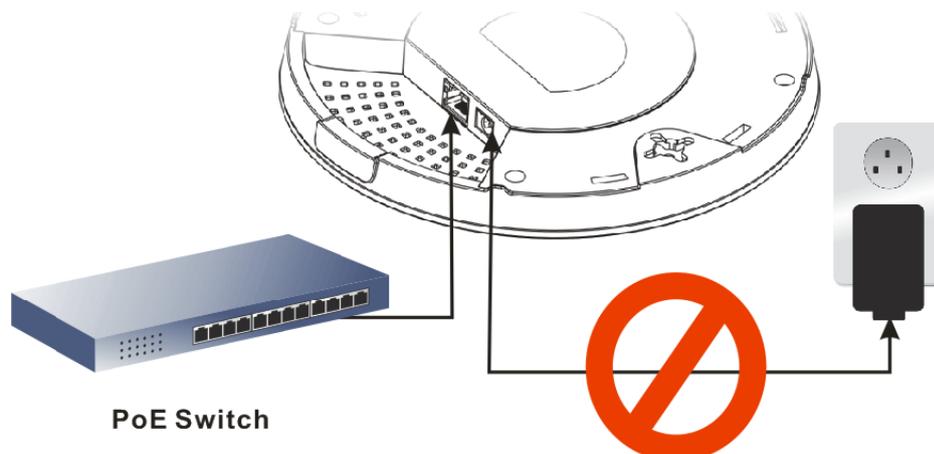


- Connect VigorAP to Vigor router (via LAN port) with Ethernet cable.



Vigor Router

- Connect the VigorAP to PoE switch/injector (via LAN port) with Ethernet cable. If using a PoE switch, do not connect the power adapter, the VigorAP will be powered through Power over Ethernet.

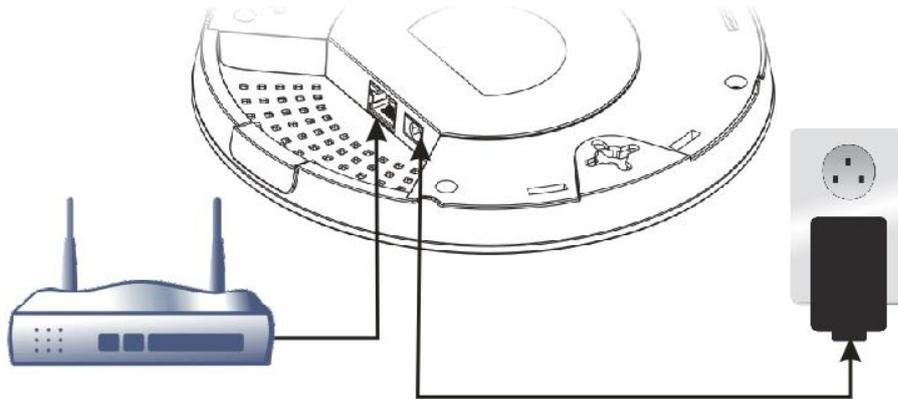


PoE Switch

## 4.2 Connect to a Vigor Router using AP Management

Your VigorAP can be used with Vigor routers which support AP management such as the Vigor2862 or Vigor2926 series. AP Management enables you to monitor and manage multiple DrayTek APs from a single interface.

1. Connect one end of the power adapter to power port of VigorAP, and the other side into a wall outlet.



Vigor Router

2. Access the web interface of your Vigor router. Using the Vigor 2862 as an example, go to [Central Management] > [AP] > [Status]. This lists the VigorAP access points detected by the router's Central AP Management:

Index	Device Name	IP Address	SSID	Encryption	Ch.	WL Client	Version	Password	
1	AP810_007620482810	10.28.60.11						Password	x
2	AP912C_00507F22334	10.28.60.12						Password	x

Note:  
Green : Online    Red : Offline    ?) Grey : Hidden SSID

Maximum support 20 APs.

When AP Devices connect via another intermediate router or switch, please check/unblock the following ports **UDP:67,68,4944** and **TCP:80** of the router/switch, thus AP status can be retrieved.

3. Locate VigorAP 912C. Click the IP address assigned by Vigor router to access into web user interface of VigorAP 912C.
4. After typing username and password (admin/admin), the main screen will be displayed.

## 4.3 Initial Configuration

This section details how to set up the VigorAP to operate as part of your wireless network.

### 4.3.1 Connected as a Mesh Node (in Mesh Network)



- 1 Install the VigorAP on to the ceiling.
- 2 As a mesh node, settings related to VigorAP 912C must be configured by a remote Mesh Root (e.g., VigorAP 903) within the mesh network:

#### Method 1 - Mesh Root AP's Web Interface:

Access the web interface of the Mesh Root AP.

Go to **[Mesh] > [General Setup]** and click the **Search** button to discover the new AP and add it as a new Mesh Node.

#### Add Mesh Node

Press Search button below to find and adopt the new node into Mesh group.

Search

#### Method 2 - DrayTek Wireless app:

Connect to the Mesh Root with the DrayTek Wireless app.

Press the **Add Nodes** button to begin the discovery process.

Select the new VigorAP to add it as a new Mesh Node.



### 4.3.2 Connected as an Access Point

As an access point, the VigorAP 912C needs to be connected to a router and configured in AP (Access Point) / Range Extender mode.

- 1 Install the VigorAP on to the ceiling.
- 2 Use a twisted-pair cable with RJ-45 plugs at both ends, and plug into Ethernet device (e.g., Vigor router) and Ethernet port of VigorAP.



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#### Note

If the VigorAP is connected to a router's network, connect your PC to that network and ensure your PC's IP address is assigned dynamically.

If connected directly to the VigorAP with no other network, configure your PC with an IP address in the 192.168.1.x range.

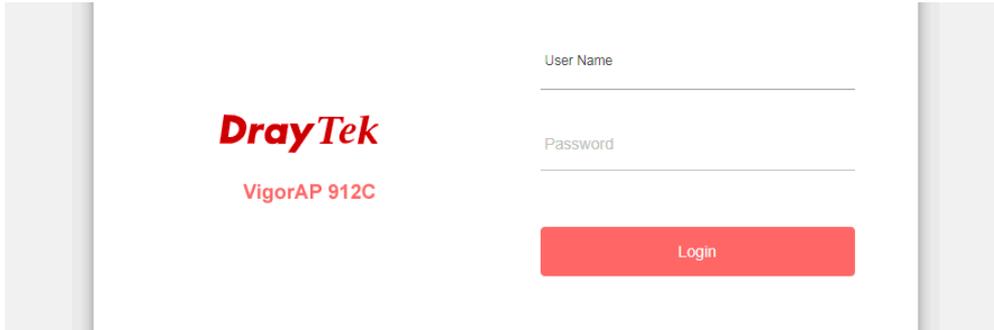
- If there is no DHCP server on the network, the VigorAP 912C will have an IP address of 192.168.1.2.
  - If there is DHCP available on the network, the VigorAP 912C will receive its IP address via the DHCP server.
  - Connect to the VigorAP's default wireless LAN SSID using the QR code, the web interface can then be accessed from <http://vigorap.com>.
-

- 3 There are **two methods** to configure the VigorAP 912C:

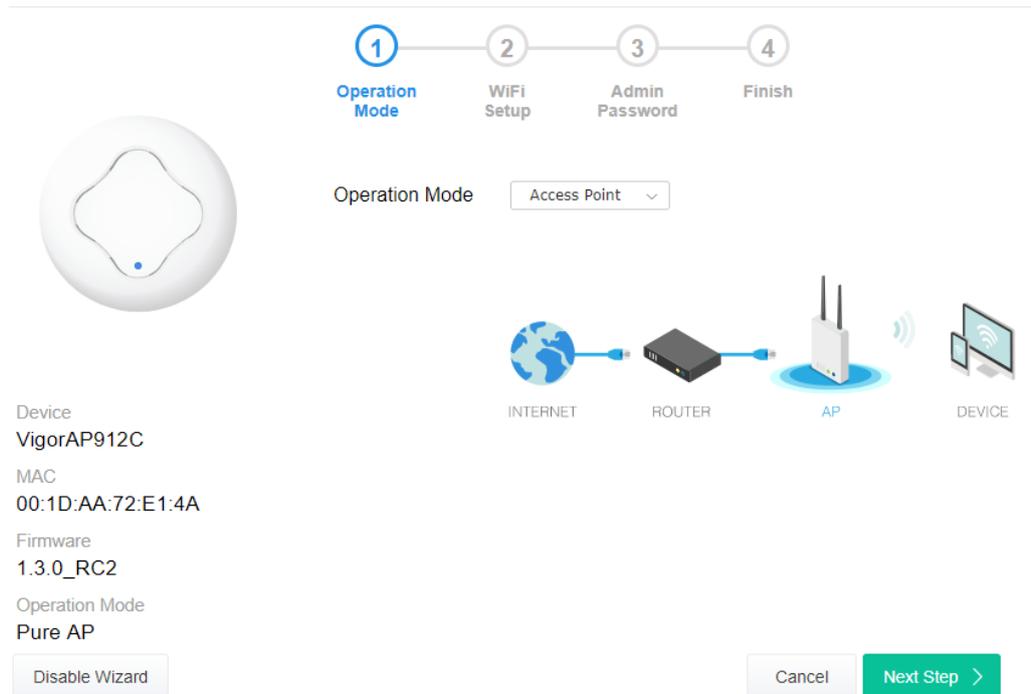
### Method 1 - Web Interface

- (a) First, open a web browser on your PC and type **https://192.168.1.2**. A pop-up window will open to ask for username and password.

Default Username	<b>admin</b>
Default Password	<b>admin</b>



- (b) After clicking **Login**, the **Quick Start Wizard** assists with initial configuration:



1 Operation Mode    2 WiFi Setup    3 Admin Password    4 Finish

Operation Mode:

Device: VigorAP912C  
MAC: 00:1D:AA:72:E1:4A  
Firmware: 1.3.0\_RC2  
Operation Mode: Pure AP



#### Note

To set up the access point manually, click **“Disable Wizard”** to access the Dashboard and other menus.

- (c) Select an operation mode (Access Point, Mesh Root, Mesh Node or Range Extender) and click **Next Step**.

This guide demonstrates the setup of **Access Point (AP)** mode:

1 — 2 — 3 — 4  
**Operation Mode**    WiFi Setup    Admin Password    Finish

Operation Mode

- Access Point
- Access Point**
- Mesh Root
- Mesh Node
- Range Extender

INTERNET    ROUTER    AP    DEVICE

Device  
 VigorAP912C  
 MAC  
 00:1D:AA:72:E1:4A  
 Firmware  
 1.3.0\_RC2  
 Operation Mode  
 Pure AP

Disable Wizard    Cancel    Next Step >

- (d) Configure the VigorAP's wireless network name and security settings (for both 2.4GHz and 5GHz).

1 — **2** — 3 — 4  
**Operation Mode**    **WiFi Setup**    Admin Password    Finish

Your AP is under default config. Please setup first.

WiFi Name:

WiFi Password:

Enable 2nd WiFi

2nd WiFi Name:

2nd WiFi Password:

Enable Bandwidth Limit

Enable Station Control

**Note:** The WiFi settings will apply to all Wireless bands.

Device  
 VigorAP912C  
 MAC  
 00:1D:AA:72:E1:4A  
 Firmware  
 1.3.0\_RC2  
 Operation Mode  
 Pure AP

< Back    Cancel    Next Step >

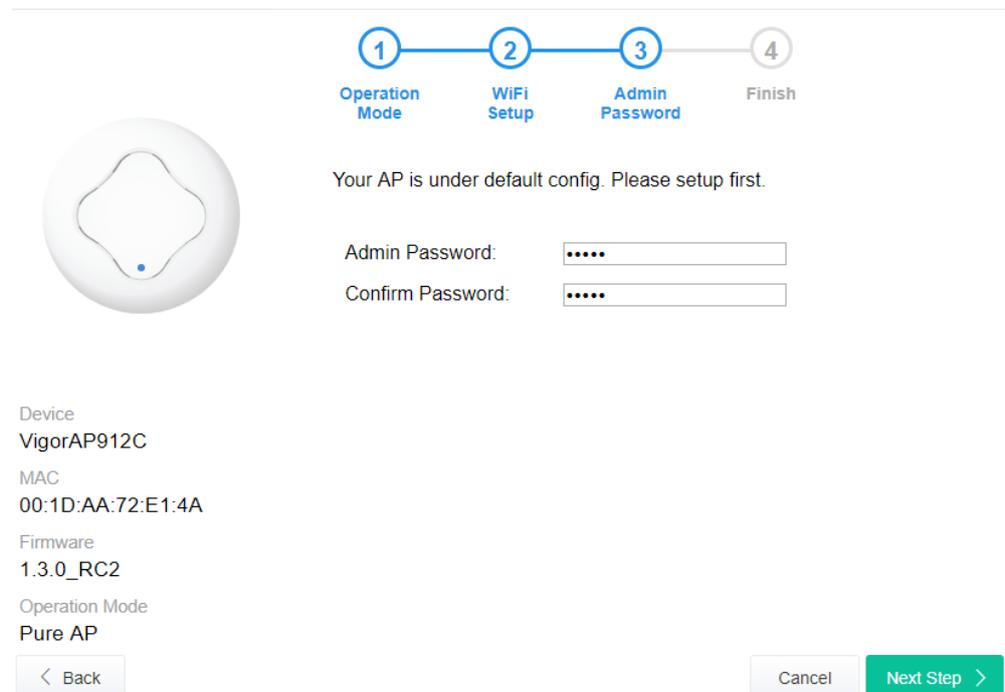
### WiFi Name

We recommend changing the default SSID (the wireless network name which is visible to users) to represent your network.

<b>WiFi Password</b>	The VigorAP has a default security key printed on a label on its base.  You should change the password here - choose a 'strong' password (complex with a mix of letters, symbols and numbers).
<b>Enable 2<sup>nd</sup> WiFi</b>	If you want to provide two networks (SSIDs) which clients can connect to then you can enable a 2 <sup>nd</sup> network name.
<b>2<sup>nd</sup> WiFi Name</b>	The wireless network name which is visible to users. This name will appear in addition to the primary WiFi Name.
<b>2<sup>nd</sup> Wifi Password</b>	You should change the password here - choose a 'strong' password (complex with a mix of letters, symbols and numbers).
<b>Enable Bandwidth Limit</b>	Configure bandwidth limits users connected to the VigorAP's wireless network.
<b>Enable Station Control</b>	Configure time limits for users connecting to the VigorAP's wireless network.

Then click **Next Step**.

(e) Now change the management password for the VigorAP and click **Next Step**. This secures the VigorAP from unwanted configuration changes.



The screenshot shows a configuration wizard with four steps: 1. Operation Mode, 2. WiFi Setup, 3. Admin Password, and 4. Finish. Step 3 is currently active. A progress bar at the top indicates the current step. Below the progress bar, a message states: "Your AP is under default config. Please setup first." There are two input fields for "Admin Password" and "Confirm Password", both masked with dots. On the left, there is a circular icon representing the VigorAP device. Below the input fields, the following information is displayed:

- Device: VigorAP912C
- MAC: 00:1D:AA:72:E1:4A
- Firmware: 1.3.0\_RC2
- Operation Mode: Pure AP

At the bottom, there are two buttons: a grey "Back" button with a left arrow and a green "Next Step" button with a right arrow. A grey "Cancel" button is also visible between the two main buttons.

- (f) Now, a summary of settings configuration will be shown on screen. Click **Finish**. The VigorAP will restart with the details specified in the **Quick Start Wizard**. The VigorAP will be ready for use once it has restarted.



1 — 2 — 3 — 4  
Operation Mode    WiFi Setup    Admin Password    Finish

Basic settings are completed. Press Finish button apply changes.

Operation Mode	Pure AP
WiFi Name	DrayTek-72E14A
2nd WiFi Name	DrayTek-Guest
Bandwidth Limit	Disabled
Station Control	Disabled

Device  
VigorAP912C  
MAC  
00:1D:AA:72:E1:4A  
Firmware  
1.3.0\_RC2  
Operation Mode  
Pure AP

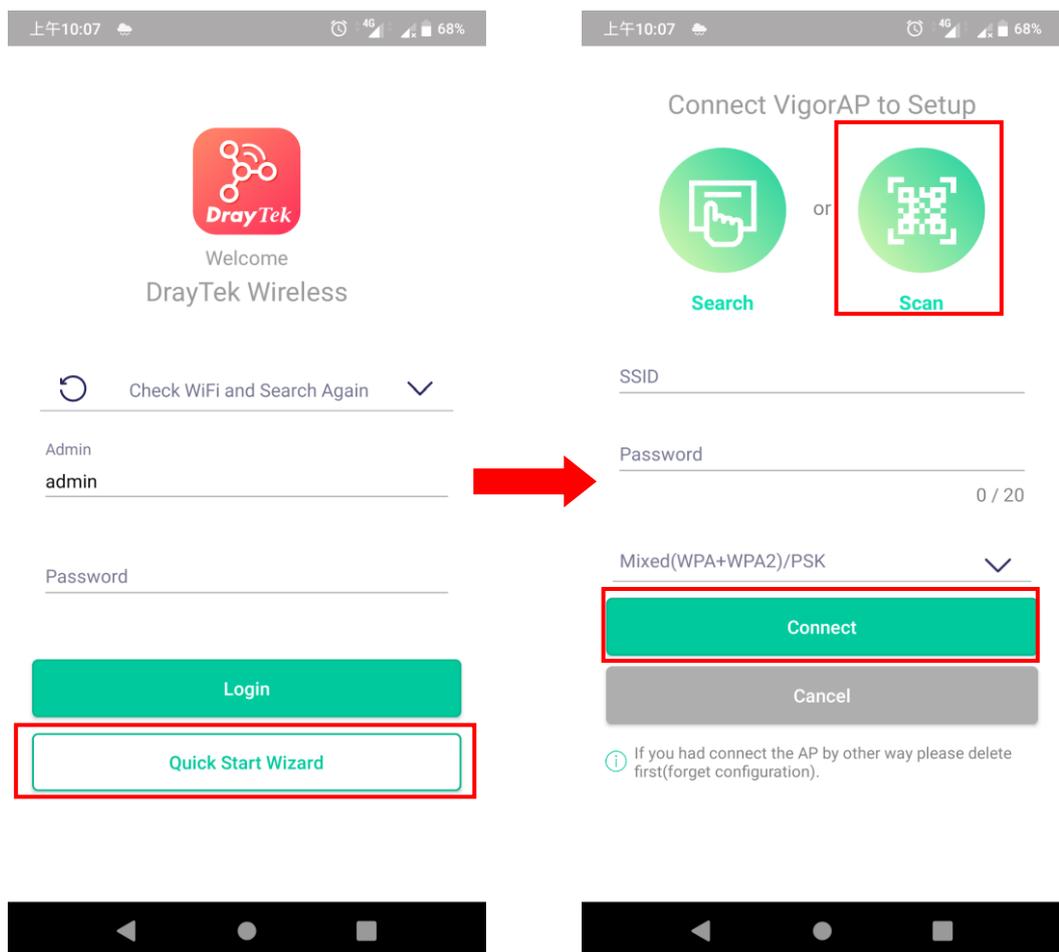
< Back Cancel **Finish**

## Method 2 - DrayTek Wireless app

- (a) Use a mobile phone to scan the QR code named with **DrayTek Wireless App** to download DrayTek Wireless APP.



- (b) After downloading, run the APP.
- (c) Click Quick Start Wizard. Next, scan the QR code named with **Connect SSID**. Later, click **Connect** to access into the APP user interface of VigorAP 912C to set the device in AP or Range Extender mode.



## Keep up to date with our mailing list

Now that you have your DrayTek product, you should keep up to date with product updates (firmware), security advisories and other product news, advice or special offers. Users in the UK/Ireland can subscribe to our mailing list. For details and to subscribe, please visit [www.draytek.co.uk/list](http://www.draytek.co.uk/list). In other countries or regions, please contact your local distributor/supplier for local options.

Wireless Access Points provide convenience and flexibility, but you should always take security seriously. You can learn more about improving your wireless and network security in our special guide, available from [www.draytek.co.uk/best](http://www.draytek.co.uk/best)

## Firmware Updates

Firmware updates for your product ensure that you have the latest set of features, security updates and improvements for your product. Users in the UK/Ireland can download these from [www.draytek.co.uk/support](http://www.draytek.co.uk/support)

## Getting Help & Support

If you need help with using your DrayTek product, please contact your dealer for further assistance. For support in the UK/Ireland, you can also visit the support section on [www.draytek.co.uk](http://www.draytek.co.uk). From there you can view the knowledgebase or contact our support department for assistance with any eligible product.

If you are outside of the UK/Ireland and need assistance, please contact your own local supplier, email to [support@draytek.com](mailto:support@draytek.com) or visit [www.draytek.com/support](http://www.draytek.com/support)

For warranty service, in the first instance, please contact the support services, as listed above, for help in diagnosing or eliminating the problem or issue. The support department can arrange repair or service if then deemed necessary.

The standard Vigor AP-912C warranty is 'Return to base' (RTB) unless you have VigorCare which provides enhanced services (see [www.draytek.co.uk/vigorcure](http://www.draytek.co.uk/vigorcure)).

You should keep your proof of purchase (original invoice) safely in case warranty or other service is ever required.

**GPL Notice** This DrayTek product uses software partially or completely licensed under the terms of the GNU GENERAL PUBLIC LICENSE. The author of the software does not provide any warranty. A Limited Warranty is offered on DrayTek products. This Limited Warranty does not cover any software applications or programs.

To download source codes please visit:

<http://gplsource.draytek.com>

GNU GENERAL PUBLIC LICENSE:

<https://gnu.org/licenses/gpl-2.0>

Version 2, June 1991

For any question, please feel free to contact DrayTek technical support at [support@draytek.com](mailto:support@draytek.com) for further information.