networks@work

Quick Install Guide

Wireless-G Network Access Point

WPE54G (Standard)

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1: Introduction

The Compex WPE54G is a wireless access point that is interoperable with all standard based 802.11b and 802.11g wireless devices.

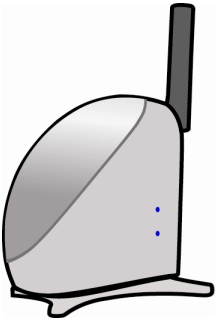
The Compex WPE54G is a compact and high-performance access point that is designed with support for high security features like enhanced Wi-Fi Protected Access (WPA1/2-PSK, WPA1/2-EAP), IEEE 802.1x Authentication (TLS, TLLS, PEAP, EAP-SIM) and 64-bit or 128-bit Wired Equivalent Privacy.

Compex exclusive wireless LAN technology Wireless Pseudo VLAN further enhances security in wireless hotspot networks in isolating different users into their own VLANs.

Compex WPE54G is capable of operating in 6 different modes: Access Point Bridging, Access Point Client, Gateway, Wireless Routing Client, Wireless Ethernet Adapter and Wireless Bridge Link; making it suitable for all kinds of wireless applications.

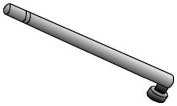
Packaging Content

Actual product appearance may slightly differ depending on the hardware version.



1 x WPE54G unit

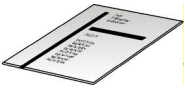
1 x Power Adapter



1 x 2dBi Antenna

1x RJ45 Ethernet Cable
(*Only available in selected products*)

1 x Product CD



1 x Read-Me-First Note

2: Let's Get Going-Hardware Setup

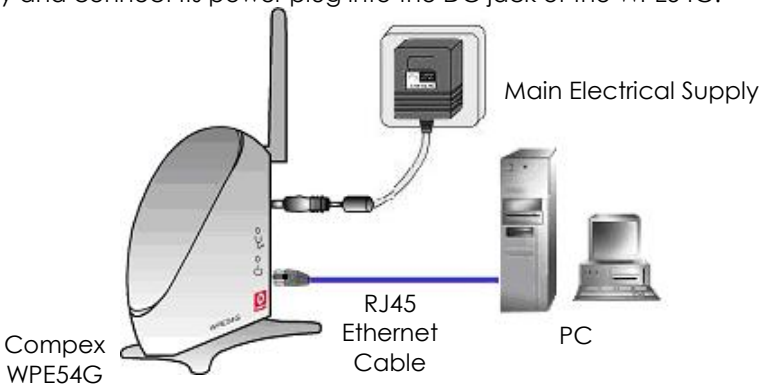
Step 1

Use the RJ45 cable to connect the Ethernet port of the WPE54G to your PC.

Once you have finished configuring your WPE54G, you can connect the Ethernet cable to your network device, such as to a switch or hub.

Step 2

Next, attach the power adapter supplied in the packaging to the main power supply and connect its power plug into the DC jack of the WPE54G.



Step 3

Power ON your PC. Notice that the **Power** and **LAN** LEDs have lighted up. This indicates that the connection has been established successfully between your Compex WPE54G and your PC.

3: Access to Web-based Interface

There are two methods to access to the Web-based interface of Compex WPE54G:

1. Through the Compex Utility – uConfig
   You can access to the web-based interface directly without having to change the IP address of your PC.

2. Through your web browser
   First, you will need to assign an IP address to your PC, such as 192.168.168.X, where X can be any value from 2 to 254, so that it is in the same subnet as Compex WPE54G. Then, enter the IP address of Compex WPE54G in the address bar of the Internet Explorer window and press **Enter**.

Access to the Web interface with uConfig

Compex has developed a powerful uConfig utility that provides hassle-free access to the Web configuration menu.

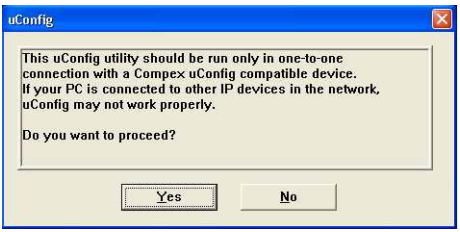
Step 1

Insert the Product CD into your CD-ROM drive.

Step 2

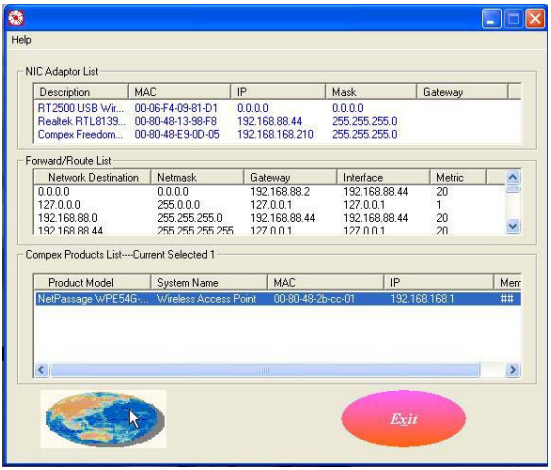
From the **Software** section, select to install the **uConfig** utility to your hard disk.

When the utility has been installed, double-click on the **uConfig** icon. The following screen will appear, click on the **Yes** button to proceed.



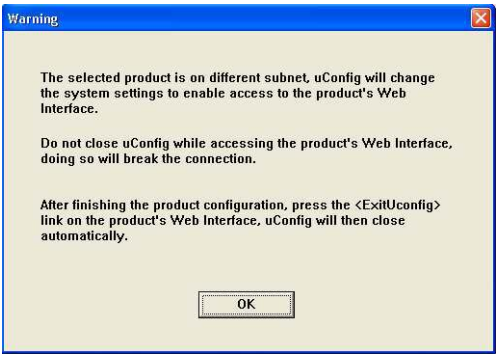
Step 3

Select *Compex WPE54G* in the **Compex Products List** section and click on **Open Web** button.



Step 4

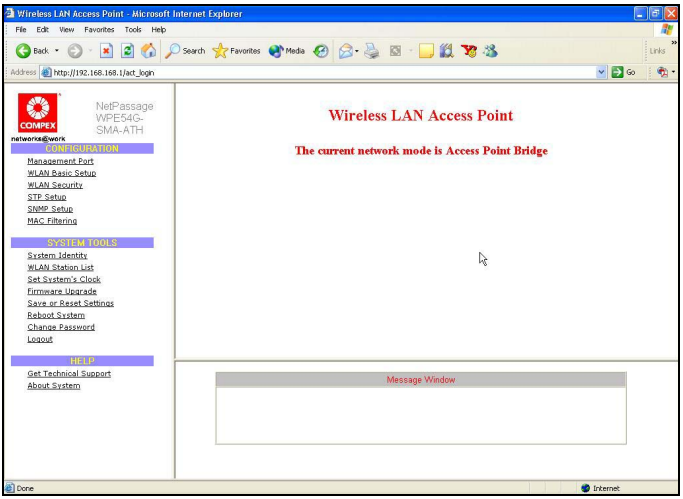
This screen prompts you not to exit your uConfig program while accessing to your web-based interface, or else you will fail to connect to your device. Click on the **OK** button to proceed.



Step 5

At the authentication page, click on the **Log On**! button to enter the main configuration page.

You will then reach the home page of Compex WPE54G's web-based interface.



Note:
Refer to User's Manual for instructions on how to configure Compex WPE54G for wireless access.

Access to the Web interface manually

If you wish to access to the web interface manually, you need to configure the TCP/IP of your PC. Refer to Chapter 4 for detail.

If you have forgotten the IP address of your router, do not worry! Compex has designed another utility program **NpFind** that helps you verify the IP address of your Compex product. You can also find this utility in the Product CD.

Step 1

From the Product CD, click on **Software** and select **NpFind** program to run it.

Once your Compex WPE54G has connected to your PC, the program will automatically detect the device and display its IP address.

Step 2

Open your Internet browser, enter http://192.168.168.1 in the address bar and hit the **Enter** key from the keyboard.

You will then reach the home page of Compex WPE54G's web-based interface.

Note:
Refer to User's Manual for instructions on how to configure Compex WPE54G for wireless access.

4: TCP/IP Configuration

Once the hardware has been set up, you need to assign an IP address to your PC so that it will be in the same subnet as Compex WPE54G. By default, Compex WPE54G's IP address is 192.168.168.1; and its subnet mask is 255.255.255.0. You need to configure your PC's IP address to 192.168.168.X; and its subnet mask is 255.255.255.0, where X can be any number from 2 to 254 excluding 1. Simply follow the procedures stated below to configure the TCP/IP settings of your PC.

For Windows 95/98/98SE/ME/NT

Please note the following instructions are based on Windows 98.

Step 1

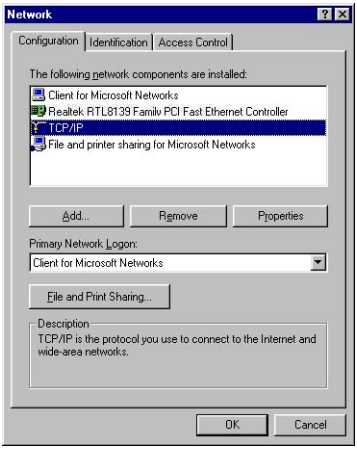
From your desktop, choose **Network Neighborhood** icon and select **Properties**.

Step 2

Choose the network adapter that you are using; right click and select **Properties**.

Step 3

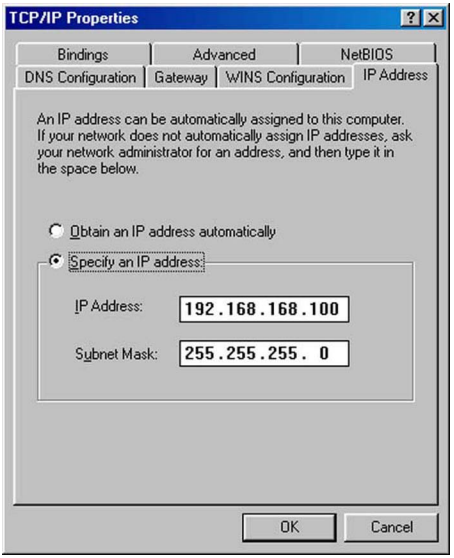
Highlight the **TCP/IP** and click on **Properties** button.



Step 4

Select the radio button for **Specify an IP address**.

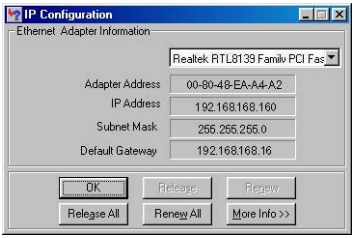
Enter the IP Address and Subnet Mask as 192.168.168.X and 255.255.255.0, where X can be any number from 2 to 254, except for 1. In this example, we are using 192.168.168.160 as the static IP Address.



Step 5

In order to check if the IP address has been assigned correctly to your PC, simply go to the **Start** menu, select **Run**, and enter the command *winipcfg*.

Select your respective Ethernet Adapter from the drop down list and click **OK**.



Now, your PC is now ready to configure Compex WPE54G. Please refer to the User's Manual in the Product CD for more details on configuring Compex WPE54G.

For Windows XP/2000

Step 1

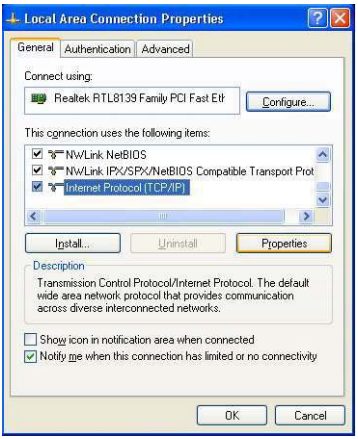
Go to your desktop, click on **My Network Places** icon and select **Properties**.

Step 2

Go to your network adapter icon, right click and select to **Properties**.

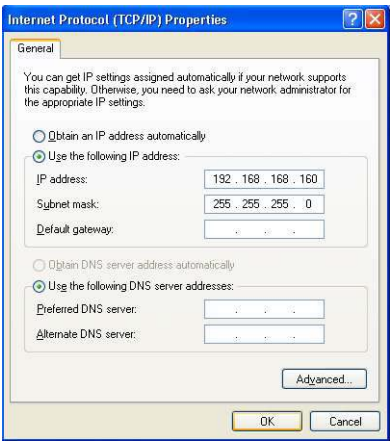
Step 3

Highlight **Internet Protocol (TCP/IP)** and click on **Properties** button.



Step 4

Select the radio button for **Use the following IP address**. Enter the IP Address and Subnet Mask as 192.168.168.X and 255.255.255.0, where X can be any number from 2 to 254, except for 1. In this example, we are using 192.168.168.160 as the static IP Address.

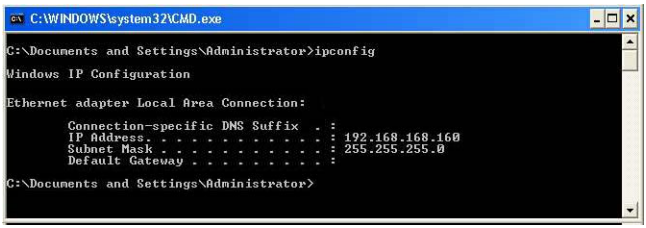


Step 5

Click on **OK** to close all windows.

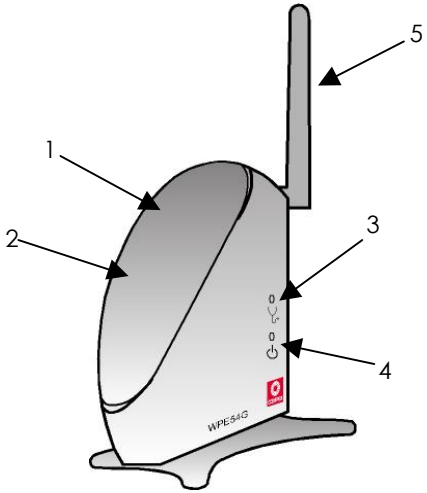
Step 6

Next, in order to check if the IP address has been correctly assigned to your PC, go to **Start** menu, **Accessories**, select **Command Prompt** and type the command *ipconfig/all*.

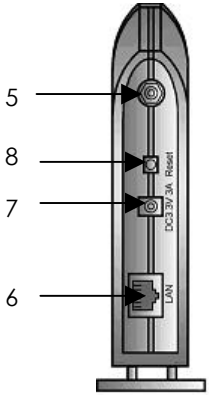


Your PC is now ready to configure Compex WPE54G. Please refer to the User's Manual in the Product CD for more details on configuring Compex WPE54G.

5: Panel Views and Descriptions



Front View



Back View

	Features	Status and Indications	
1	**LAN Link/Act LED**	Steady Yellow	Compex WPE54G is operating at the speed of 10Mbps.
		Steady Green	Compex WPE54G is operating at the speed of 100Mbps.
2	**WLAN Link/Act LED**	Steady Green	More than 1 wireless client is present in the wireless network.
		Blinking Green	Activity is detected in the wireless network.
3	**Diagnostic LED**	Steady Green	The device is in access point or gateway mode.
		Blinking Green	The device is booting.
		Off	The device is in Client mode.
4	**Power LED**	Steady Blue	Power is supplied to the device.
		Off	No power is supplied to the device.
5	**External Antenna**	Rotatable antenna	
6	**LAN RJ45 Ethernet Port**	Using RJ45 Ethernet cable for connection.	

7	**DC 3.3V 3A**	Power input of 3.3VDC
8	**Reset button**	Push button: ◆ 2s to reboot your device ◆ between 2s to 10s to restore to its factory default ◆ > 10s for operating mode switch

6: Technical Specifications

Industrial Standards	◆ IEEE 802.11b ◆ IEEE 802.11g
Performance	◆ Network speeds dynamically shift between 1,2, 5.5, 11, 12, 18, 24, 36, 48, 54 Mbps ◆ Indoor: 20 m (54 Mbps) ◆ Outdoor: 80 m (54 Mbps)
Frequency Range **IEEE 802.11b:** **IEEE 802.11g:**	 2.4 ~ 2.4835 GHz 2.4 ~ 2.497 GHz
Wireless Operation Modes	Access Point Bridge Access Point Client Gateway Wireless Routing Client Wireless Ethernet Adapter ▪ Wireless Bridge Link
Security	◆ 64 - bit / 128 - bit WEP ◆ WPA1/2-PSK / WPA1/2-EAP ◆ Pseudo Virtual LAN ◆ Tagged VLAN ◆ IEEE 802.1x – TLS, TTLS, PEAP, EAP-SIM
Network Interface	1 x RJ45 10/100 Mbps auto-negotiating Ethernet port
Modulation Techniques	OFDM (BPSK, QPSK, 16-QAM, 64-QAM), DSSS (BPSK, QPSK, CCK)
Output Power **IEEE 802.11b:** **IEEE 802.11g:**	 20 dBm 19 dBm
Operating Channels	◆ 11 Channels: US and Canada ◆ 13 Channels: Europe ◆ 14 Channels: Japan
Resiliency	Parallel Broadband (in Gateway mode using WDS)

SNMP	◆ SNMP (RFC 1157) ◆ MIB II (RFC 1213)
LED Indicators	◆ Power ◆ Diagnostic ◆ LAN Link/Activity ◆ WAN Link/Activity
Power Requirements	◆ Input Voltage Options: 3.3VDC ◆ Current Ratings: 3 A (max)
Antenna	Detachable 2dBi antenna with SMA connector
Management	◆ Telnet Command Console ◆ HTTP Web Management
Built-in DHCP Server	Yes
DHCP Reservation	By MAC address
Load Balancing	Parallel Broadband
Fail-Over Redundancy	Parallel Broadband
Virtual Server	IP and Port Forwarding, De-Militarised Zone
IP Packet Filtering	◆ Time-based ◆ By TCP Port ◆ By Source IP
IP Routing	Static & Dynamic Routing
VPN Client Pass-Through	PPTP, IPSec
Configuration Interface	Web-based Configuration Menu
Profile Backup & Restore	Yes
Firmware Upgrade	Yes
Electromagnetic Emissions	◆ FCC Part 15 SubClass B ◆ CE R&TTE

Electromagnetic Immunity	◆ EN 55022 (CISPR 22)/EN 55024 Class B ◆ EN 61000-3-2 ◆ EN61000-3-3
Safety	◆ CE Mark ◆ EN 60950
Power Requirements **Input Voltage:** **Current Ratings:**	 3.3VDC 3 A (max)
Environment Requirements **Operating Temp:** **Storage Temp:** **Operating Humidity:**	 0°C to 70°C -15°C to 70°C 5% to 95% RH Humidity (RH – Relative Humidity):
Physical Dimensions	88mm x 24mm x 88mm (H x W x D)
Weight	0.62kg

Further Information References

For more details on the WPE54G configuration, please refer to the User's Manual in the accompanying Product CD.

This document may become superseded, in which case you may find its latest version at: http://www.compex.com.sg/home/download.asp

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Manual Revision by Ann

Manual Number: M-0436-V1.4C Version 1.4, August 2005

FCC NOTICE: This device 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 device 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 device does cause harmful interference to radio or television reception, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Connect the computer into an outlet on a circuit different from that to which the receiver is connected.
- Increase the separation between the computer and receiver.
- Consult the dealer or an experienced radio / TV technician for help.

Caution: Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

FCC Compliance Statement: 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.

Products that contain a radio transmitter are labeled with FCC ID and may also carry the FCC logo.

Caution: Exposure to Radio Frequency Radiation.

To comply with the FCC RF exposure compliance requirements, the following antenna installation and device operating configurations must be satisfied:

a. For configurations using the integral antenna, the separation distance between the antenna(s) and any person's body (including hands, wrists, feet and ankles) must be

b. at least 2.5cm (1 inch).

For configurations using an approved external antenna, the separation distance between the antenna and any person's body (including hands, wrists, feet and ankles) must be at least 20cm (8 inch).

The transmitter shall not be collocated with other transmitters or antennas.

ICES 003 Statement

This Class B digital apparatus complies with Canadian ICES-003.

DECLARATION OF CONFORMITY: *Compex, Inc. declares that the product:*

Product Name: Compex Wireless-G Network Access Point

Model No.: WPE54G conforms to the following Product Standards:

1) CE **EN300 328 : 2003 V1.4.1** - Radio
2) CE **EN301 489-1 V1.4.1/ EN301 489-17 V1.2.1** - EMC
3) CE **EN 60590 : 2001** - Safety
4) CE **EN 50371** – Health
5) FCC **Part 15C** - Radiated & Conducted Emission

Manufacturer's Name: Compex, Inc.

Address: 840 Columbia Street, Suite B

Brea, CA 92821, USA

WARRANTY REGISTRATION CARD Register via the Internet at http://www.cpx.com or http://www.compex.com.sg	[M-0088-V2.4C]	
To activate the warranty, please complete this card and return to Compex within ninety (90) days from the date of purchase.		
Please e-mail this warranty card to **support@compex.com.sg**.		

Product:	Purchase Date:	Model:	Serial No:
Name:		E-mail:	
Company:			
Address:			
Postal/Zip Code:		Country:	
Phone: ( )			

Note:
For purchases within U.S.A and Canada, please fax to Compex, Inc. at (714) 482 0332

For purchases outside U.S.A and Canada, please fax to Compex Systems Pte Ltd at (65) 6280-9947

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Version 1.4
August 2005