The Concept of Global Communication

# Networking

# Setting up a WPA connection with Conceptronic 54g products Wireless

Connectivity

# Datacommunication

# Entertainment

# Hardware Installation Guide





In this article we discuss how to setup a WPA protected connection between a 54Mbps wireless card and a 54Mbps access point. In figure 1 you can see the situation we've used for testing. For more information about WPA see the website of the wifialliance



Figure 1

## **Requirements:**

Hardware:

- A Conceptronic C54i (54Mbps wireless PCI network adapter) or
  - a Conceptronic C54C (54Mbps wireless PMCIA network adapter)
- A Conceptronic C54AP (54Mbps access point)

Software:

- Windows XP
- Latest drivers and firmware for your Conceptronic hardware

#### 1 Installation

- Install Service Pack 1 for Windows XP or use this patch to enable support for WPA: Windows XP Support Patch for WPA

- Install the Security Patch:

Windows XP Security patch for WPA

- Install the drivers and utility for your C54i or C54C

- Connect the C54AP access point to your network/router

### 2 Configuring the access point

Internet Protocol (TCP/IP) Prope	rties 🛛 🛛 🔀		
General			
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.			
Obtain an IP address automatically	у		
• Use the following IP address:			
IP address:	10.0.0.2		
S <u>u</u> bnet mask:	255.0.0.0		
Default gateway:			
Obtain DNS server address automatically			
O Use the following DNS server addresses:			
Preferred DNS server:			
<u>A</u> ltemate DNS server:	· · ·		
	Ad <u>v</u> anced		
	OK Cancel		

Change the IP address of the wireless connection to 10.0.0.2 and subnet 255.0.0.0, leave the other fields blank.

Click OK

Disable Status			on the wi
Repair View Available Wireless Networks			010000
Open Network Connections	9	3:12 PM	

Wireless Network Connection 2			
The following wireless network(s) are available. To access a wireless network, select it from the list, and then click Connect.			
Available wireless <u>n</u> etworks:			
X WLAN			
This wireless network is not secure. Because a network key (WEP) is not used for authentication or for data encryption, data sent over this network might be subject to unauthorized access.			
Allow me to connect to the selected wireless network, even though it is not secure			
If you are having difficulty connecting to a network, click Advanced.			
Advanced Cancel			

Connect to the access point by right-clicking on the wireless connection in the taskbar and choose "View Available Wireless Networks".

Change the IP address of the wireless connection to 10.0.0.2 and subnet 255.0.0.0, leave the other fields blank.

Click OK

### 3 Configuring the access point

Open your Browser, type in the address box: "http://10.0.0.1" (default IP) and press enter. When you are asked for it, fill in username "admin" and leave the password blank. Click "OK" and you are in the web interface of the access point.

Go to "Advanced Setup"  $\rightarrow$  "Configuration"  $\rightarrow$  "Security Settings" Use the following settings:

### (The keys can be anything, but must be exactly 16 characters)

Security Settings				
Wireless Band	IEEE802.11g 🔽			
Authentication	<ul> <li>○ Open System</li> <li>○ Shared Key</li> <li>○ WPA</li> </ul>			
WEP	○ Disabled			
Wep Key Туре	ASCII 🗸			
Wep Key Size	152 Bits 💌			
Key	Table for HexValue			
Valid Key	First 🗸			
First Key	it'swpaprotected			
Second Key				
Third Key				
Fourth Key				
	Apply			

Authentication:	WPA
Wep Key Type:	ASCII
Wep Key Size:	152
Valid Key:	First
First Key e.g.:	it'swpaprotected
Click "A Change the IP wireless connection to 10.0.0.2 a 255.0.0.0, leave the other fields bla Click OK pply"	and subnet

Now you should come to the "WPA Settings" screen and use the following settings:

WPA Settings			DOK	
WPA Mode	⊙PSK ○EAP	WPA Mode:	PSK	
Security Server	Edit Security Server Settings	PassPhrase: Cipler Type:	it'swpaprotected TKIP	
PassPhrase	it'swpaprotected	Group Key		
Cipler Type	TKIP 💌	Update Interval:	1800	
Group Key Update Interval	1800	Olista "Assate"		
	Apply	Click "Apply"		

#### (The PassPhrase can be anything, but must be at least 8 characters)

Click Apply to save the settings and restart the access point.

### 4 Configuring the wireless network adapter

When WPA is configured in the access point you will have to reconfigure the C54i/C54C

Wireless Network Connection 2			
The following wireless network(s) are available. To access a wireless network, select it from the list, and then click Connect.			
Available wireless <u>n</u> etworks:			
👗 WLAN			
This wireless network requires the use of a network key (WEP). To access this network, type the key, then click Connect.			
Network <u>k</u> ey:	•••••		
Confirm network key:	•••••	]	
✓ Enable IEEE 802.1x authentication for this network			
If you are having difficulty connecting to a network, click Advanced.			
Advanced	Connect Cancel		

Right-click the wireless connection icon in the taskbar, and click

"View Available Wireless Networks" Select the access point and use the following settings.

Network Key: use the PassPhrase you entered in the router (itiswpaprotected)

When done click "Connect".

When the connection is successfully windows will report on which access point it is connected and what the signal strength is. You should be able to connect to your access point again with your secure WPA connection.