NETPASSAGE

Quick Install Guide

Compex Wireless Mini PCI Adapter

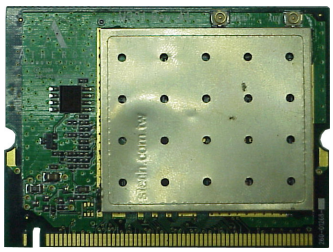
WLM54G

Version 1.1

networks@work

3. Introduction

Figure 1
CompexWLM54G



This mini PCI adapter, Compex WLM54G contains a dual-mode single chip MAC/BB/Radio for IEEE 802.11b/g Wireless LAN. Based on the latest industry standard Wi-Fi Certified IEEE 802.11g specification, the Compex WLM54G offers maximum channel speeds of up to 108 Mbps. The Compex WLM54G maintains interoperability within the 2.4 GHz frequency band, offering full compatibility with 802.11b networks. It supports key security features like Wi-Fi Protected Access (WPA), WPA2, WEP and 802.1x.

WLM54G has two variants in its family :

- **WLM54G 1A:** This mini PCI adapter's "G" chipset offers maximum channel speeds of up to 54Mbps
- **WLM54G 1B:** This mini PCI adapter's "Super-G" chipset offers maximum channel speeds of up to108Mbps

You can find this adapter that is seated inside the wireless products such as the NetPassage 28G. WLM54G can be removed from or inserted on the PCBA of the NetPassage 28G.

4. Packaging Contents

The Compex NetPassage 28G retail package contains the following items to start you off:

- 1x Compex NetPassage 28G
- 1x External Power Adapter
- 1x Quick Install Guide with Warranty Registration Form
- 1x Product CD (containing User's Manual, Firmware Recovery Tool & Utilities)
- 1x Wall-Mounting Template
- 1 x UTP MDI RJ45 Ethernet Straight Cable

5. Network Infrastructure

Only a few simple steps are required to set up the NetPassage 28G to begin your broadband Internet sharing as part of your wired and wireless network infrastructure.

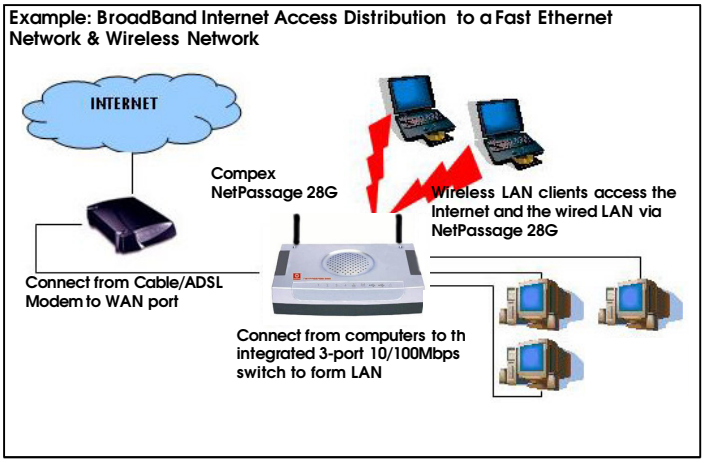


Figure 2 Setting up CompexNetPassage 28G

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

6. Hardware Installation

1. Connect an Ethernet cable from the cable/ADSL modem to the WAN port of the NetPassage 28G.

2. For Wired user, connect an Ethernet cable from your computer's network port to any of the LAN ports of the NetPassage 28G.

3. Connect the power adapter from the main power supply to NetPassage 28G. Please do not turn on the power during the installation for safety reasons.

Once the hardware setup is done, you may power on the device now.

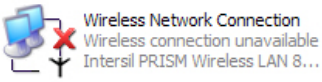
NOTE

NOTE
For Wired Network users, please skip Section 5 and go to Section 6.

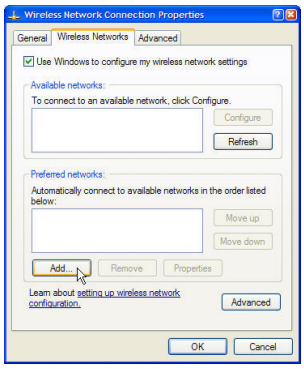
7. Configuring Wireless Network Connection

Depending on your client's wireless adapter, you may set up Windows XP's Wireless Network Connection as follows:

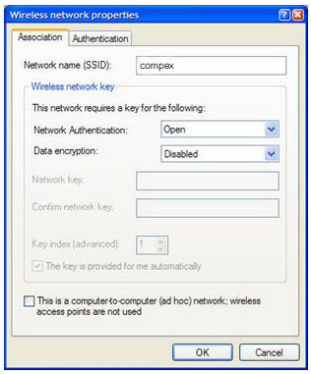
1. Right-click on **Wireless Network Connection** corresponding to the wireless Ethernet adapter you wish to connect with the NetPassage 28G, and click on **Properties**.



2. At the **Wireless Networks** tab, click on the **Add** button under **Preferred Networks**.



3. At the **Network name (SSID)** field, type in 'compex' (the factory default of NetPassage 28G). Click OK.

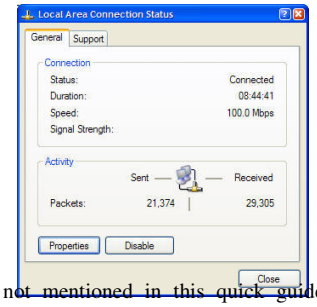


8. Configuring TCP/IP Settings

You should configure your PC or wireless client to obtain IP address automatically. For users of Microsoft Windows XP, you may configure the TCP/IP settings as follows:

1. Click the **Start** button. Select **Settings** and click the **Control Panel** icon. Then double-click the **Network Connection** icon.

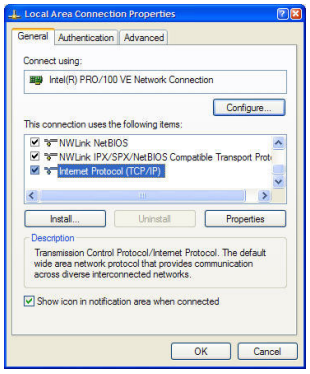
Right click on **Local Area Connection** or **Wireless Network Connection** corresponding to the Ethernet adapter you wish to connect to NetPassage 28G.



NOTE

NOTE
The Advanced Setup is not mentioned in this quick guide. Please refer to User's Manual for more information.

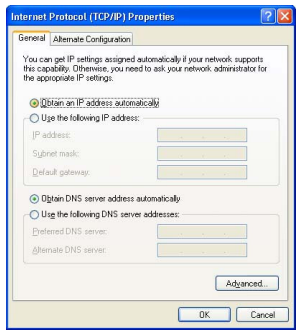
2. Under **General** tab at **This connection uses the following item**, make sure the box next to **Internet Protocol (TCP/IP)** is checked. Then highlight **Internet Protocol (TCP/IP)**, and click the **Properties** button.



3. Check the radio button next to **Obtain an IP address automatically** .

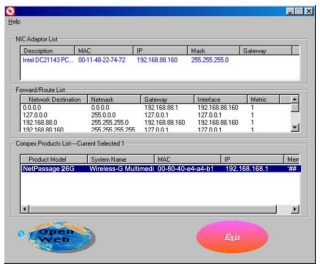
Then click the **OK** button on this page, and the **OK** button on the previous page it returns you to.

Restart your computer to complete the PC configuration.



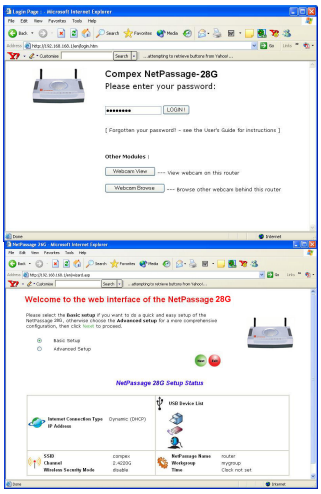
9. Getting Started with Wizard Setup

1. Insert the Product CD to your CD-ROM drive, go to **Utilities** section and run the **uConfig** program, select **Wireless-G Multimedia Gateway** and click on **OpenWeb** button.



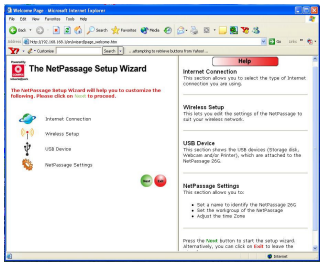
Alternatively, launch Internet Explorer Browser (or Netscape). At the Address field, key in http://192.168.168.1.

The default password is pre-entered in the field provided. Just click on the **LOGIN!** button to access the main page of Compex NetPassage 28G. The factory default password is 'password'.



2. Check the radio button next to **Basic Setup**. Click on the **Next** button.

3. The first page of Setup Wizard is an overview of the basic setup.



- **Internet Connection**
This functionality lets you specify the type of Internet Connection you want to use.

- **Wireless Setup**
This functionality lets you configure the settings of the gateway to suit your wireless network.

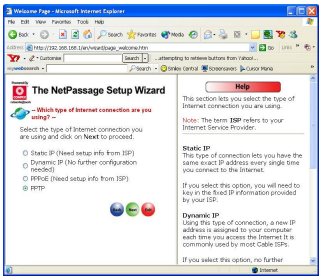
- **USB Device**
This functionality gives you a quick glimpse of the summary on the USB devices that are connected to the gateway.

- **NetPassage Settings**
This functionality lets you identify the gateway and create a workgroup for the gateway. It also lets you set up the time zone of the locale.

NOTE

For more details, please refer to User's Manual. Alternatively, refer to **Help** on the right side of the main page here.

4. To setup your WAN connection, select the following types of **Internet Connection** such as:



- **Static IP**
For configuring **Static IP**, you need to manually enter IP Address, Network Mask and Gateway IP Address that are provided by your ISP.

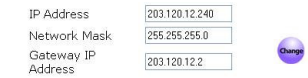
- **Dynamic IP** (used as an example in this guide)

- **PPPoE**
For configuring **PPPoE**, you have to enter Username and Password that are provided by your ISP.

- **PPTP**
For configuring **PPTP**, you have to enter Username, Password, Network Mask and VPN Server that are provided by your ISP. Take note that VPN Server is the IP of your ISP PPTP server.

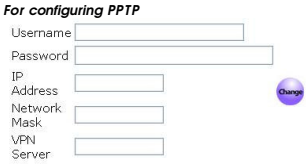
To proceed, click on the **Next** button.

For configuring Static IP address

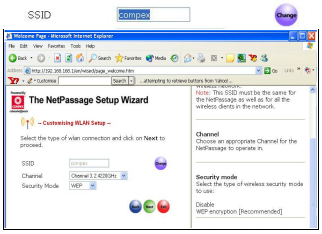


For configuring PPPoE

For configuring PPTP



5. To configure the following parameters:



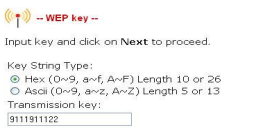
- **SSID**
The default SSID is 'compex'. Click on the **Change** button to enter your preferred SSID name.

Remember to change your wireless clients' settings illustrated in Section 5 after NetPassage 28G has rebooted and the new SSID has taken effect.

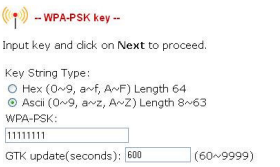
- **Channel**
Click on the down-arrow button next to **Channel**. From the list, select your preferred wireless network channel.

- **Security Mode**
You may choose to disable, enable **WEP** or enable **WPA-PSK** to secure the wireless connection.

If **WEP** is enabled, select Hex or Ascii for the key string type to be used. Then key in the transmission key.



If **WPA-PSK** is enabled, select Hex or Ascii for the key string type to be used. The default **WPA-PSK is** '11111111'. The default **GTK update** is '600'.

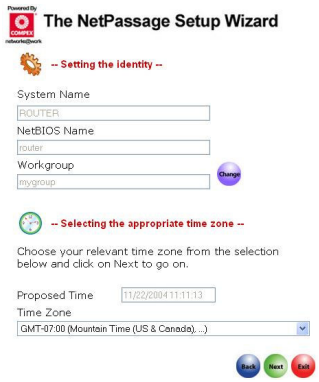


To proceed, click on the **Next** button.

6. Then the Wizard will detect if any of the USB devices such as printer, storage disk or webcam are connected to NetPassage 28G.

For more details on setting up USB devices, refer to User's Manual.

If you want to allow access to your storage disk via Internet, click **Yes**. Then you will be prompted to enter the following data:



- **System Name**
The default name is 'ROUTER' so you may change it if you wish. So create a better name to identify your gateway.

- **NetBios Name**
The default name is 'router' so you may change it if you wish. This name for NetPassage 28G will appear when you browse the MS Windows Network Neighbourhood.

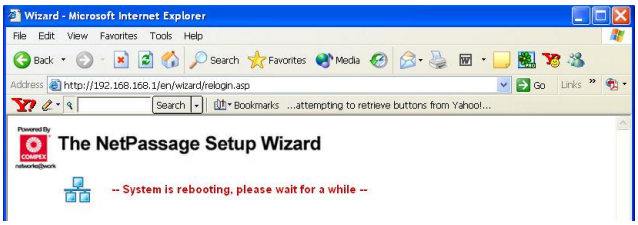
- **Workgroup**
The default name is 'mygroup'. If you wish, create an appropriate name for the workgroup of your gateway.

- **Time Zone**
Set up the time zone of this locale.

To proceed, click on the **Next** button.

7. You will see the summary of NetPassage 28G setup appear for your viewing. Check if the settings such as WAN IP Address, etc are correct.

8. Click on the **Finish** button to save the settings and reboot NetPassage 28G.



9. You will be returned to the Login page after 30 seconds. Alternatively, you can repeat Step 1.

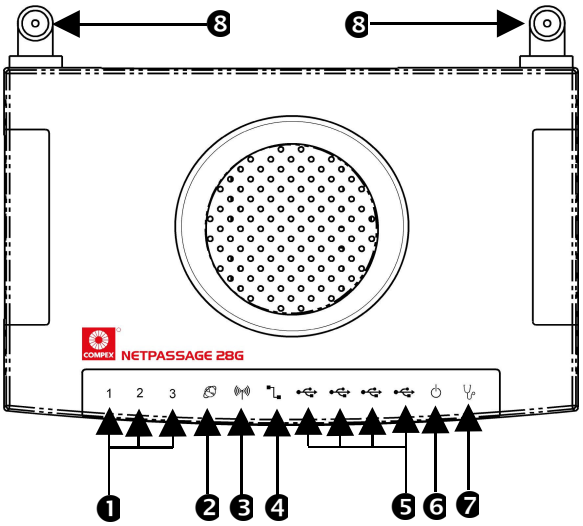
Further Information References

If you have other Windows operating systems or broadband Internet accounts, please refer to the User's Manual in the accompanying Product CD.

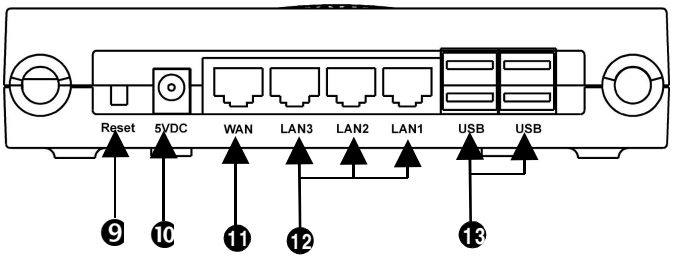
This document may become superseded, in which case you may find its latest version at: http://www.compex.com.sg/prodspec.asp?f=Manual&s=1

10. Schematic Overview of the NetPassage 28G

Top View



Back View



Label	Name	Description	
❶	LAN Link/ActLED 1,2 3	Steady GREEN	LAN connection is on.
		Flashing GREEN	Data transmission at LAN connection.
❷	WAN LED	Steady GREEN	WAN connection is on.
❸	Wireless LAN Link/Act LED	Steady GREEN	At least one wireless client is present.
		Flashing GREEN	Activity is detected in the wireless network.
❹	WAN Link/ActLED	Flashing GREEN	Data transmission at WAN connection.
❺	USB LEDs 1,2,3,4	Steady GREEN	USB device is detected.
		Flashing GREEN	Data transmission at respective USB ports.
❻	Power LED	Steady BLUE	The device has powered up.
❼	Diagnostic LED	Flashing GREEN	It indicates that the firmware is corrupted.
❽	External Antennas	Foldable, non-detachable antennas	
❾	Reset	Push button	To reboot, press once. To reset password, press and hold the button for 5 seconds before releasing it. To restore factory default settings, press and hold the button for 8 seconds before releasing it.
❿	5 VDC	Power Input	
⓫	WAN (RJ45 Port)	WAN port connects to Cable/ADSL modem	
⓬	LAN RJ45 Ports 1,2,3	Integrated LAN Switch Ports	
⓭	USB Ports 1, 2,3,4	Integrated USB2.0 Ports	

9. Specification

Technical Specification	
Industrial Standards	***Wired:*** • IEEE 802.3 10Base-T • IEEE 802.3u 100Base-Tx • IEEE 802.3x Flow Control ***Wireless:*** • IEEE 802.11b • IEEE 802.11g
WAN Interface	1x Auto MDI/MDI-X RJ45 Ethernet Port for external Cable/ADSL modem
WAN Type	• Static IP • Dynamic IP • PPP over Ethernet (PPPoE) • Point to Point Tunneling Protocol (PPTP)
LAN/WLAN Interface	***Wired:*** • Integrated 3x Auto MDI/MDI-X RJ45 Ethernet Port for 10/100Mbps Switch ***Wireless:*** • Operating channels, frequency of: ○ 11 Channels 2.400~2.4835, US, Canada ○ 13 Channels, 2.400~2.4970, Europe ○ 4 Channels 2.400~2.4835, France • Direct Sequence Spread Spectrum modulation, Orthogonal Frequency Division Multiplexing modulation • Data rates: 108Mbps, 54Mbps, 48Mbps, 36Mbps, 24Mbps, 18Mbps, 12Mbps, 11Mbps, 9Mbps, 6Mbps, 5.5Mbps, 2Mbps, 1Mbps • Security: ○ 64-bit/128-bit WEP ○ WPA, WPA-PSK ○ Wireless Pseudo VLAN
USB2.0 Ports	***4X integrated USB ports supporting:*** • PC Web Camera • Print Server • Storage disk drive
IP Addressing	All Classful/Classless subnets
Built-in DHCP Server	Yes
DHCP Reservation	Yes
NAT Firewall	Yes
Stateful Packet Inspection (SPI) Firewall	Yes
Load-Balancing/Fail-Over Redundancy	Parallel Broadband
Virtual Server	IP and Port Forwarding, De-Militarized Zone hosting
IP Packet Filtering	Time-based, TCP Port, Source IP Filtering
URL Filtering	Yes
IP Routing	Static Routing Entry
VPN Client Pass-Through	PPTP, IPSec
Configuration Interface	Web-based Configuration Menus
Profile Backup and Restore	Yes
Firmware Upgradeable	Yes
Physical and Environment	Temperature: • Operating : 0°C to 40°C • Storage : -20°C to 70°C Humidity: • Operating : 10% to 80% RH • Storage : 5% to 90% rh
Physical Dimension	174mm x 104mm x 40 mm (L x W x H)

Disclaimer: Compex, Inc. provides this guide without warranty of any kind, either expressed or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. Compex, Inc. may make improvements and/or changes to the product and/or specifications of the product described in this guide, without prior notice. Compex, Inc. will not be liable for any technical inaccuracies or typographical errors found in this guide. Changes are periodically made to the information contained herein and will be incorporated into later versions of the guide. The information contained is subject to change without prior notice.
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Manual Revision by Ann Tay
Manual Number: ***M-0431-V1.1C*** Version 1.1, November 2004

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. 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 which can be determined by turning the PC 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.
- Connect the computer into an outlet on a circuit different from that to which the receiver is connected.
- Increase the distance 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:
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 Multimedia Gateway
Model No.: NetPassage 28G conforms to the following Product Standards:
Radiated Emission Standards: EN55022A, FCC Part 15 Class B
Conducted Emission Standards: EN60555Pt2 conducted emission; EN55022A conducted emission, FCC Part 15 Class B
Immunity Standards: IEC 801-2; IEC 801-3; IEC 801-4
Therefore, this product is in conformity with the following regional standards: FCC Class B — following the provisions of FCC Part 15 directive; CE Mark — following the provisions of the EC directive.

Manufacturer's Name Compex, Inc.
Address 4051 E. La Palma Ave.
Anaheim, CA 92807, USA
European Contact
ReadyLINK Network Technology GmbH

Technical Support
ReadyLINK Network Technology GmbH
Albert Einstein Straße 34/M21,
D-63322 Rödermark, Germany
Fax +49 6074-4-9 0668

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WARRANTY REGISTRATION CARD [M-0088-V2.3C]

COMPEX® networks@work

You can register via Internet at: **http://www.cpx.com** *or* **http://www.compex.com.sg**

Or E-mail: **support@compex.com.sg** with the following information:			
To activate the warranty, please complete this card and return to Compex within ninety (90) days of purchase date.			
Product:	Purchase Date:	Model:	Serial No:
Name:	Title:	E-mail:	
Address:			
Postal/Zip Code:		Country:	
Phone: ( )			
How did you learn about Compex?	❒ Work ❒ Friend ❒ Internet ❒ Dealer ❒ Magazine ❒ Exhibition		
	❒ Other:		

Note:
For purchases within U.S.A and Canada, please fax to Compex, Inc. at (714) 630-6521

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

This device complies with Part15 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.

End Product Labeling

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users (for example: This module will be bundling into Broadband product such as Wireless Modem/ Notebook with antenna mounted around LCD panel).
The final end product must be labeled in a visible area with the following:
Contains TX FCC ID: MK8CPX-05-WLM54G .

Manual Information That Must be Included

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the users manual of the end product which integrate this module.
The users manual for OEM integrators must include the following information in a prominent location !¡± IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

------Cut along the dotted line------✂------Cut along the dotted line------✂------Cut along the dotted line------