

# C-guys SD-Link11b Manual

This section explains the symbols, signs and terminology used in this manual.

A device with the C-Guys Wireless SD-Link11b client installed is called the Wireless LAN device.

The following terminology is used in this manual to distinguish between an Ethernet 10/100BASE-T LAN and a Wireless LAN and should not be construed as generally accepted terminology outside this context.

Ethernet LAN: A LAN connected by cables

Wireless LAN: A LAN connected by radio signal

For your safety be sure to read, understand and follow the instructions below thoroughly before using the product.

This manual contains instructions concerning general operation of the computer to which the product is connected in addition to those concerning the product itself.

Please take note that our warranty will not cover any failures and problems of the computer, any losses and failures of data, or failures and problems of the product caused by misuse.

Signs:

**WARNING** The instructions with this sign indicate prohibited actions. Failure to follow the instructions shown with this sign may result in death or serious injury to the user.

**CAUTION** Failure to follow the instructions shown with this sign may result in injury to the user or property damage.

Symbols:

△ This indicates warnings and cautions. (Ex. Exercise care to avoid electric shock.)

⊗ This indicates prohibiting actions. (Ex. Do not disassemble.)

• This indicates what must be done. (Ex. Disconnect the plug from the outlet.)

## **WARNING**

Strongly recommended: Follow the warning and caution instructions which are issued by the PC and peripheral manufacturers.

Prohibit: Do not attempt to disassemble or repair the SD-Link11b. This may result in fire or electric shock.

Strongly recommended: Install this product away from children. Failure to do so may result in injury.

Prohibit: Do not handle the equipment with wet hands while it is in operation. This may result in electric shock.

## **CAUTION**

Strongly recommended To prevent damage due to the static electricity touch a metal object such as a door handle or metal window before touching the device. Static electricity may result in damage to the equipment.

Strongly recommended For usage of the PC and peripheral, refer to the product manual.

Strongly recommended Remove the dust from all connectors. Dust may result in failure in performance.

Prohibit Do not locate this product in the following locations. Doing so may result in electric shock or fire, or may adversely affect this product. Locations with strong magnetic fields or static electricity (may result in failure)

Locations prone to vibration (may result in injury or damage)

Locations in direct sunlight (may result in failure or deformation)

Locations close to fire, or subject to heating (may result in failure or deformation)

Locations with water leakage or current may result in failure or electric shock

Locations with excessive dust (may result in failure)

We recommend that dual backup before and after updating of original data be created for unrecoverable important data in the device. Data in the card may be damaged or lost in the following cases.

When the device is used incorrectly

When the device receives static electricity or electrical noise

When the device breaks down or is repaired

When the power is turned on immediately after the PC is turned off

When the device is damaged by natural disasters

Please note that C-Guys INC. shall not be liable for any expenses incurred due to the damage or loss of hard disk data that may arise in the above cases or in any other case.

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# 1

## **Package Contents & System Requirements**

### **1.1 Package**



- **One C-guys SD-Link11b (wireless LAN card)**
- **Manual (this document)**
- **Drivers and configuration utilities on CD-ROM**
- **Quick installation guide**

**If you miss any of these items please contact your reseller.**

## **1.2 System Requirements**

### **1. Win-CE based PDAs**

- PDA with windows CE 3.0/Pocket PC 2000 or newer with at least 32 MB memory
- Secure Digital (SD) slot (Assuming SDIO host controller is already installed)
- Microsoft Active sync should be installed
- An IEEE802.11b or Wi-Fi approved Access Point/Base station

### **2. Windows XP or W-2000 based PCs**

- Windows OS 2000, windows XP with at least 32 MB memory
- Secure Digital (SD) slot (Assuming SDIO host controller is already installed)
- An IEEE802.11b or Wi-Fi approved Access Point/Base station

### **3. Palm PDA based on palm OS**

- Palm PDA with palm OS 5.0 with at least 32 MB memory
- Secure Digital (SD) slot (Assuming SDIO host controller is already installed)
- An IEEE802.11b or Wi-Fi approved Access Point/Base station

# **2**

## **Introducing SD-Link11b Client Card**

The SD-Link11b Client is a wireless network card that complies with the IEEE 802.11b standard on wireless LANs (Revision B).

### **2.1 SD-Link11b client features and benefits**

- Wi-Fi (Wireless Fidelity) certified
- Supports data rates up to 11 Mbps.
- Fully compatible with any other wireless LAN system based on Direct Sequence Spread Spectrum (DSSS) radio technology that complies with the "IEEE 802.11b standard on wireless LANs (Revision B)".
- Automatic Transmit Rate Select mechanism in the transmit range of 11, 5.5, 2 and 1 Mbps

- 128 bit Wired Equivalent Privacy (WEP) data encryption and WPA support
- Efficient Power Management
- Roaming over multiple channels.
- Working range up to 400 meters in an open environment
- Supports ad hoc and infrastructure modes for easy wireless communication

## 2.2 SD-Link11b Wireless Network Scenarios

The SD-Link11b Client enables you to:

- \_ Connect your computer to a Peer-to-Peer workgroup of wireless computing devices
- \_ Connect your computer to a Small Office/Home Office (SOHO) network that includes Wi-Fi access points.
- \_ Connect your computer to a Local Area Network (LAN) Infrastructure that includes the SD-Link11b, or other IEEE 802.11b compliant LAN systems

Wireless stations can be equipped with the SD-Link11b Client device, but also with other WLAN PC Cards. Both the SD-Link11b Client and the WLAN PC Card share the same wireless functionality.

### 2.2.1 Peer-to-Peer (Ad-Hoc) Workgroup

The Peer-to-Peer workgroup configuration enables you to quickly set up a small wireless workgroup, where the workgroup participants can exchange files using features like "Files and Printer Sharing" as supported by Microsoft Networking.

You can use this option to setup a temporary or ad-hoc network in environments where no access points are available (for example in Small Office/Home Office (SOHO) environments). As long as the stations are within range of one another, this is the easiest and least expensive way to set up a wireless network.

### 2.2.2 Home Networking

With C-Guys' SD-Link11b, wireless access to the Internet or other devices is at your fingertips. All you need to do is connect the SD-Link11b to an existing access point that may be connected to the external CATV or xDSL modems and you are ready to:

- \_ Share files and printers, and
- \_ Access the Internet.

### 2.2.3 Enterprise Networking

With the Wi-Fi certified Access Point in the corporate network system, you can connect to a corporate Local Area Network (LAN) infrastructure to have wireless access to all network facilities. LAN Infrastructures may either be:

- \_ Stand-alone wireless LANs.
- \_ Wireless network infrastructures connected to an existing Ethernet network.

## 2.3 About the SD-Link11b CD-ROM

The SD-Link11b CD-ROM contains both software and documentation for the SD-Link11b card.

If you wish to install the SD-Link11b driver software, turn to Chapter 3 "Installing your SD-Link11b Client" and follow the instructions.

# 3

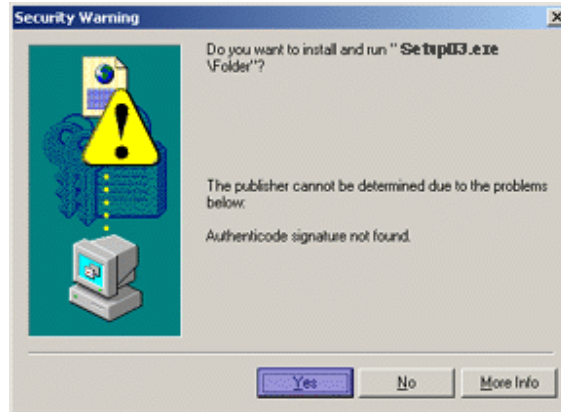
## Installing your SD-Link11b Client Driver

### 3.1 Installation of the SD-Link11b driver to the Pocket PC

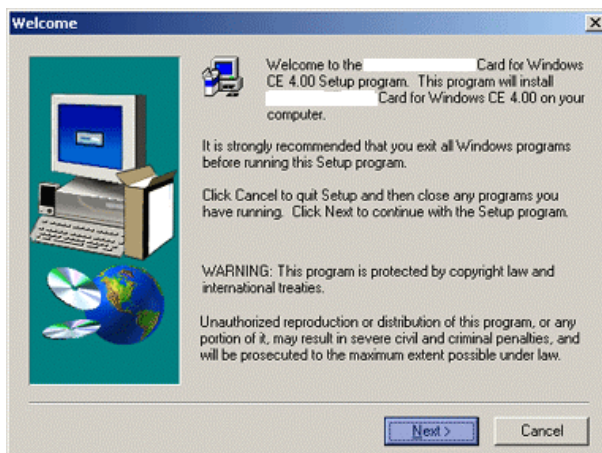
- Connect your PDA to your computer and make sure ActiveSync has established a connection between the two devices.
- Insert the CD ROM to your PC. Installation wizard will pop up to choose the operating system.

## Please select the operating system from the list below

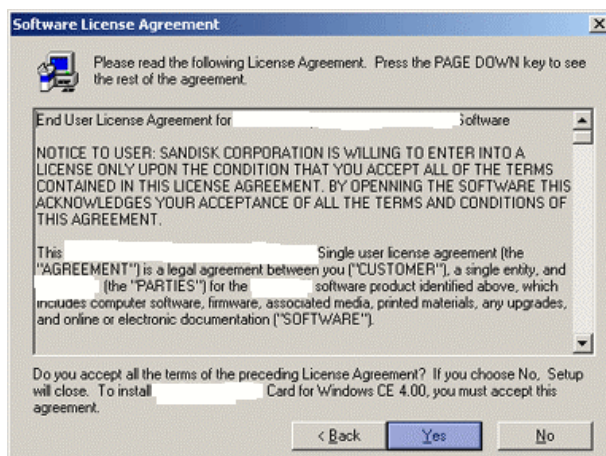
PocketPC 2002  
PcoketPC 2003. → If you click this link it will pop up a window shown below .



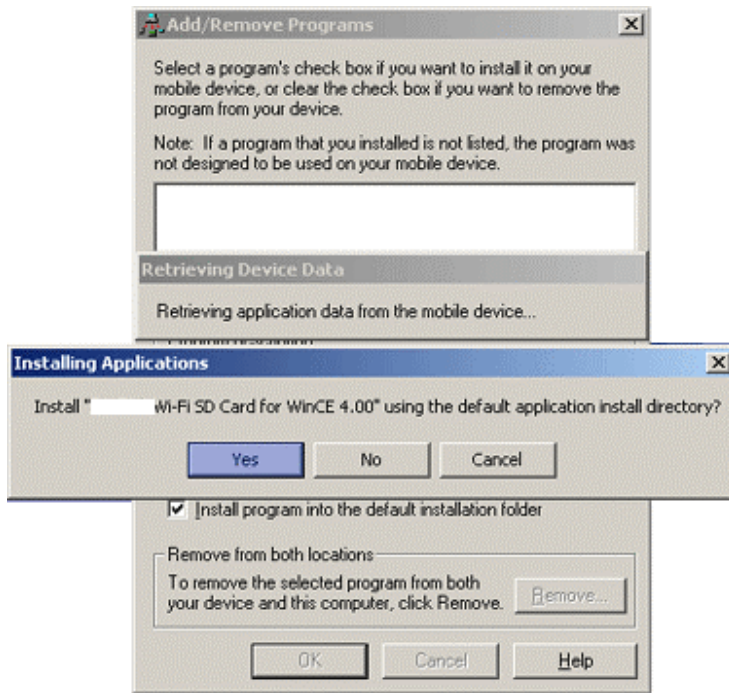
- Click **Yes** to proceed the installation. The following window should open after completing loading the driver.



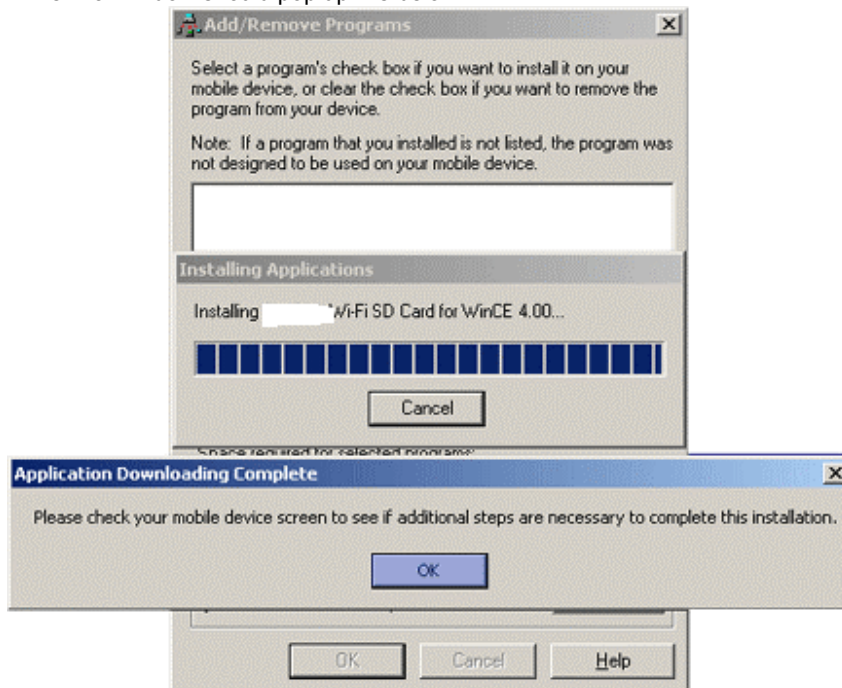
- Click **Next**. Please read the following License Agreement.



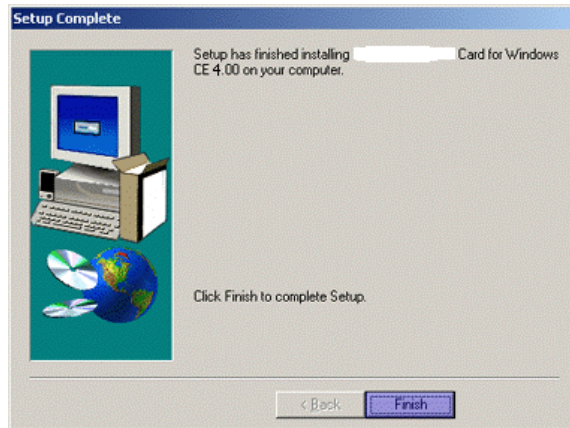
- Click **Yes**. You will see the following window.



- Click **Yes**. The final window should pop up like below.



- Click **OK**.



- Click **Finish** to complete the driver installation.

To verify if the installation of the drivers was completed successfully:


\_ Check the LEDs on your SD-Link11b Client. If a steady red is seen, the SD-Link11b Client is active.


\_(Optional) To check the quality of the network connection, you should use the SD-Link11b configuration utility program as described in the next section.

# 4

## SD-Link11b Configuration Utility

### 4.1 Basic Setup

When SD-Link11b card is inserted it should connect to the available AP automatically. If more than one AP is available then the Driver should connect to the AP which has stronger signal strength. When the driver is loaded and if it is working normally an Icon  is displayed on the lower right of the PDA screen. Once it is observed, you are ready to connect to the Internet. Click IE to enjoy surfing.

-  icon indicates the network is not established.
- icon indicates that the card is scanning for the nearest AP.



## 4.2 Advanced Setup


If the user requires specific set up, select menu and proceed. For obtaining the advanced setup menu, click icon,  to access the pop-up utility shown below.




Fig 1. Top menu.

The menu options are:

- **Radio on**
- **Radio off**
- **Status**
- **Wireless Network**
- **Advanced Options**
- **About**

**Radio on** : turns the wireless radio on. LED of the card will be flickering for few seconds to establish the connection.

**Radio off** : turns off the radio. A pop-up window will ask for your confirmation. If confirmed, the Status Icon will be changed to look like this  Then SD-Link11b card will stop functioning.

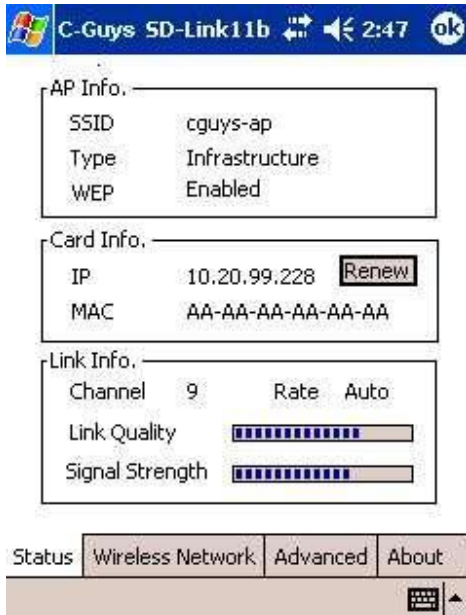
**Status** : shows the current wireless network status like shown in figure 2. The status screen also shows parameters about the wireless connection.



**Wireless Network** : shows the currently available networks.

**Advanced Options** : show the advanced configuration such as WEP and power save mode.

**About** : shows the driver version and the setup utility software version.



**Fig 2. Status and information.**

**AP INFO** : shows the current access point relevant information.

**SSID** : shows the current access point name (ESS ID).

**Type** : shows the current connection mode.

**WEP (Wired Equivalent Privacy)** : shows the current WEP used in the AP. WEP can be enabled or disabled.

**LINK INFO** : shows the current wireless link information

**Channel**: shows the wireless radio channel currently used by the card.

**Rate**: shows the current transmit rate. This can be 1 Mbps, 2 Mbps, 5.5 Mbps, or 11 Mbps.

**Signal Strength**: gives signal strength of the received signal.

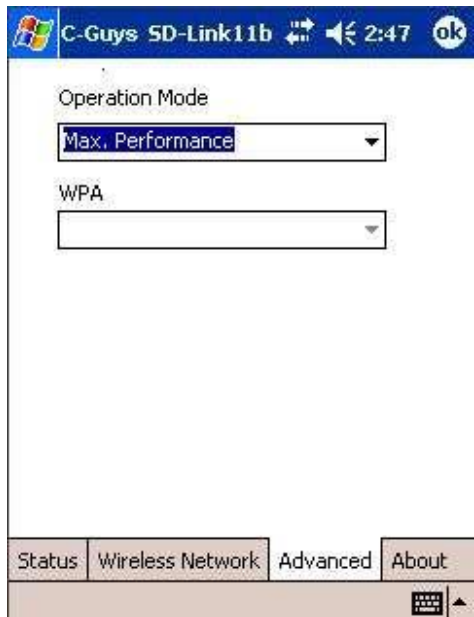
**Link Quality**: gives the reception signal quality of the current channel.

**CARD INFO**: shows the information about SD-Link11b card inserted such as,

**IP Address** - IP address of the card,

**MAC Address** - MAC address of the card.

**Advanced Options**: shows advanced configuration settings available for SD-Link11b card.



**Fig 3. Advanced setup configuration**

**Mode** : shows 3 different operational options. They are:

**Normal** → This is the default mode

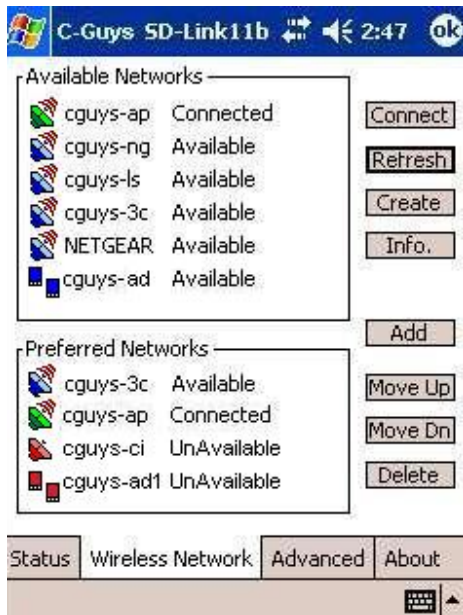
**Max Power Save** → This option will give the best power savings but less emphasis on the performance.

**Max performance** → This option will give the best performance.

**WPA** : provides Wi-Fi protected access security measure. It can be either **Enabled** or **Disabled**.

User can change the settings by clicking **Apply** button.

**Wireless network** : shows wireless networks available in the neighborhood. It is shown like below.



**Fig 4. Wireless Networks information**

**Available Networks** : displays all the active AP's in the neighborhood. The communicating AP currently is first.

**Connect** Button : Selects an AP and connect to the AP. Once the connection is established the AP requires user's information and the figure 5 window will appear. Users must input required WEP key and click **Connect** to communicate. If WEP key is required, an index will show the requirement. If no WEP input is required, click **Connect** to connect without inputting the WEP key. Once **Connect** button is pressed, figure 5 window will popup.

**Refresh** Button : starts a new search for all available APs or peer-to-peer stations in the vicinity.

**Create** Button : creates a new network and it will open the window shown below. The user has to input all the information that is required to create new wireless network (e.g Adhoc Network).

**Info** Button : selects an AP and its relevant information regarding the AP.

**Add** Button : creates a preferred network by selecting a AP from the **Available Networks**. A new network is created in **Preferred Networks** window. The user can also select an AP from the **preferred Networks** list. Once this is set, user can use the same name for quick connection or it is connected automatically.

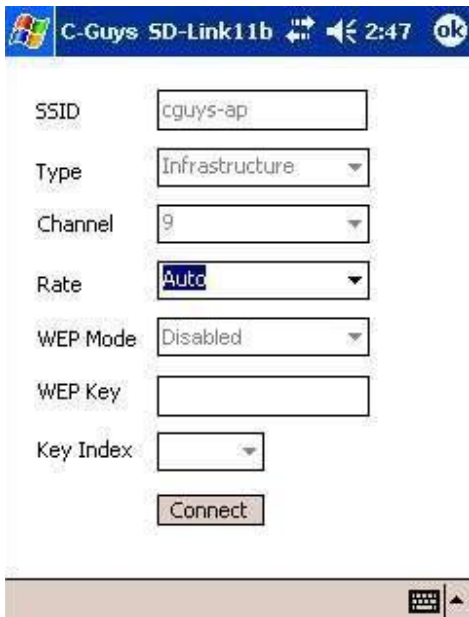
**Preferred Networks** : displays the preferred wireless networks available.

**Move Up** → Moves the highlighted profile one line up to increase the association priority.

**Move Down** → Moves the highlighted profile one line down to decrease the association priority.

**Delete** → Deletes the selected profile.

**About** : displays the driver version and utility version like shown in figure 6.



**Fig 5. Connected network information**

**SSID :** enters the SSID, this can be the Network ID or Access Point name.

**Network Type :** either **Ad-Hoc or Infrastructure** will be selected.

**Ad-Hoc (or Peer-to-Peer) mode** is connection between two or more cards.

**Infrastructure** mode is connection between clients and an AP.

**Channel :** In Ad-hoc mode, select the channel in which user wants to create/join the network.

In infrastructure mode, user can leave it blank or can enter AP's channel number. The default is auto.

**Transmit Rate :** sets the transmission data rate in the pull down menu. The default is auto.

**WEP mode :** selects either **Enabled or Disabled**. The default is **Disabled**.

**WEP Key**

When WEP mode is **Enabled**, the user need to enter WEP key as shown.

- 64 bit (HEX)      Maximum of 10 characters in Hexadecimal format
- 64 bit (ASCII)    Maximum of 5 characters in ASCII format
- 128 bit (HEX)     Maximum of 26 characters in Hexadecimal format
- 128 bit (ASCII)    Maximum of 13 characters in ASCII format

**Key Index:** allows to select multiple WEP keys

Click **Connect button** after entering all the necessary info to create new wireless network

**About** page content is shown in figure 6.



C-Guys SD-Link11b  
Copyright 2003 C-Guys Inc

Driver Version 2.0.2  
Driver Date 11/1/03  
Utility Version 2.0.0  
Utility Date 11/1/03

Help

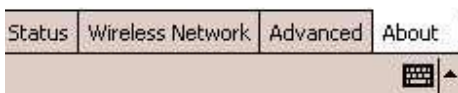








Fig 6. SD-Link11b card version information

**Help** : leads to the help link of C-guys web site [www.c-guys.com/help](http://www.c-guys.com/help).

### Summary of Important Icons

-  icon indicates the current AP is connected
-  icon indicates the current AP is available for wireless connection
-  icon indicates the current AP is not available for wireless connection
-  icon indicates Ad-hoc mode is off with current wireless connection
-  icon indicates Ad-hoc mode is on with current wireless connection
-  icon indicates Ad-hoc mode is established with current wireless connection

# 5

## SD-Link11b Client Specifications

### Power Characteristics & Physical Specifications

**Dimensions** (LxWxH) 55 x 24 x 2.1 mm  
**Weight** 10 gram

### Temperature & Humidity

**Operation** 0° to 55° C 1  
**Transit** -20° to 80° C maximum humidity 90% (no condensation allowed)  
**Storage** -20° to 80° C maximum humidity 90% (no condensation allowed)  
**Deep Sleep Mode** 3 mA  
**Receive Mode** 260 mA (Nominal)  
**Transmit Mode** 300 mA (Nominal)  
**Power Supply** 3.3 V

## **Networking Characteristics**

### **Regulatory Information**

Wireless communication is often subject to local radio regulations. Although SD-Link11b wireless networking products have been designed for operation in the license-free 2.4 GHz band, local radio regulations may impose a number of limitations to the use of wireless communication equipment.

#### **NOTE:**

Refer to the flyer "Information to the User" for more regulatory information that may apply in your country.

**Compatibility** \_ IEEE 802.11 Standard for Wireless LANS (DSSS)  
\_ Wi-Fi (Wireless Fidelity) certified by the Wi-Fi Alliance.

### **Host Operating System**

Microsoft Windows® XP, CE and embedded

### **Media Access Protocol**

CSMA/CA (Collision Avoidance) with Acknowledgment (ACK)

### **Data Rate**

- \_ High 11 Mb/s
- \_ Medium 5.5 Mb/s
- \_ Standard 2 Mb/s
- \_ Low 1 Mb/s

The SD-Link11b Client uses an automatic Transmit Rate Select mechanism.

### **Radio Characteristics**

**R-F Frequency Band 2.4 GHz** (2400-2500 MHz)

Number of selectable sub-channels 11

Modulation Technique Direct Sequence Spread Spectrum

- \_ CCK for High & Medium Transmit Rate
- \_ DQPSK for Standard Transmit Rate
- \_ DBPSK for Low Transmit Rate

Spreading 11-chip Barker Sequence

Bit Error Rate (BER) Better than  $10^{-5}$

Nominal Output Power 13 dBm

Table "Radio Characteristics" lists the typical ranges when used indoors in "office environments" as described as follows:

- \_ In **Open Office environments**, antennas can "see" each other, i.e. there are no physical obstructions between them.
- \_ In **Semi-open Office environments**, work space is divided by shoulder-height, hollow wall elements; antennas are at desktop level.
- \_ In **Closed Office environments**, work space is separated by floor-to-ceiling brick walls.

**Range / Transmit Rate High Speed 11 Mb/s**

**Medium Speed 5.5 Mb/s**

**Standard Speed 2 Mb/s**

**Low Speed 1 Mb/s**

#### **Open Office Environment**

- 160 m (525 ft.)
- 270 m (885 ft.)
- 400 m (1300 ft.)
- 550 m (1750 ft.)

#### **Semi-Open Office Environment**

- 50 m (165 ft.)
- 70 m (230 ft.)
- 90 m (300 ft.)
- 115 m (375 ft.)

#### **Closed Office**

- 25 m (80 ft.)

35 m (115 ft.)  
40 m (130 ft.)  
50 m (165 ft.)

**Receiver Sensitivity** -83 dBm -86 dBm -89 dBm -91 dBm  
**Delay Spread** (at FER of <1%) 65 ns 225 ns 400 ns 500 ns

### **SD-Link11b IEEE 802.11 Channels Sets**

The range of the wireless signal is related to the Transmit Rate of the wireless communication. Communications at a lower Transmit range may travel longer distances.

#### **NOTE:**

The range values listed in Table "Radio Characteristics" are typical distances as measured at the C-Guys. These values are provided for your guidance but may vary according to the actual radio conditions at the location where the SD-Link11b product will be installed.

### **Channel ID FCC/World**

1 2412  
2 2417  
3 2422  
4 2427  
5 2432  
6 2437  
7 2442  
8 2447  
9 2452  
10 2457  
11 2462

The range of your wireless devices can be affected when the SD-Link11b is placed near metal surfaces and solid high-density materials. Range is also impacted due to "obstacles" in the signal path of the radio that may either absorb or reflect the radio signal.

### **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.

### **FCC Interference Statement**

This equipment 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 equipment 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 equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

#### **IMPORTANT NOTE:**

### **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

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

### **IC (Industry Canada) Statement:**

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

"Operation of this device is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device."

"The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website [www.hc-sc.gc.ca/rpb](http://www.hc-sc.gc.ca/rpb)"

### **Information to User:**

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

# 6

## **Troubleshooting**

### **6.1 Introduction**

This chapter is divided into a number of sections, each with it's own specific troubleshooting tips:

#### **1. Common Troubleshooting Tips:**

- LED Activity on section B.2.1.
- Cannot Connect to the Network on section B.2.3.
- LED Work But Cannot Connect to Network on section B.2.4.
- Cannot Edit Configuration Profile on section B.2.5.
- Cannot find the LAN card on section B.2.6.
- It takes a long time to shutdown on section B.2.7.
- SD-Link11b does not operate after returning from the stand-by or sleeping mode section B.2.8.
- The host device cannot restart while SD-Link11b is installed on section B.2.9.

#### **2. Windows XP Troubleshooting Tips:**

- Upgrading the SD-Link11b Driver on section B.3.1.
- Upgrading the Driver on section B.3.2.
- Removing the Driver on section B.3.3.

#### **3. Windows CE Troubleshooting Tips:**

- Updating SD-Link11b Client Drivers on section B.4.1.
  - Remove Existing SD-Link11b Client Drivers on section B.4.2.
  - "There is another card installed" message comes up on section B.4.3
  - The PC with SD-Link11b cannot access to WXP or WCE log on process on B.4.4
- #### **4. Installation of the TCP/IP on section B.5**

## **6.2 Common Troubleshooting Tips**

### **6.2.1 LED Activity**

If you encounter difficulty using and/or installing your SD-Link11b product, the error may be related to various causes:

- \_ Out-of range situation, which prevents the SD-Link11b Client from establishing a wireless connection with the network.
- \_ Configuration mismatch, which prevents the SD-Link11b Client from establishing a wireless connection with the (correct) network.
- \_ Absence of, or conflict of the SD-Link11b Driver.
- \_ A problem or conflict with the SD-Link11b Client socket from powering on.
- \_ A conflict of the SD-Link11b hardware with another device.

The starting point to troubleshoot problems with your SD-Link11b Client is looking at the LED activity of the SD-Link11b Client.

Table 6.2.1 below provides an overview of the various modes of operation and the associated LED activity. Table 6.2.1 also includes a number of troubleshooting hints, if required, that may help you solve the problem.

**Table 6.2.1 LED Activity Table**

Power LED	Description/Action
Continuous Red	Standard operational mode No action is required
Off	SD-Link11b Client power is not on, so it cannot transmit/receive data. The SD-Link11b may not be connected properly. Actions: <ul style="list-style-type: none"> <li>_ Check SD-Link11b connection.</li> <li>_ Verify the device settings of the SD-Link11b Client to determine the conflict with another devices. If so, change the settings of either your SD-Link11b Client or the conflicting device to resolve the problem.</li> <li>_ Verify the versions of the driver, and the SD-Link11b Client firmware.</li> <li>_ Consult the SD-Link11b <b>website at: <a href="http://www.C-Guys.com">http://www.C-Guys.com</a></b> to see if newer versions are available and if so, upgrade both the driver and SD-Link11b firmware.</li> </ul>

## 6.2.2 Cannot Connect To Network

If your SD-Link11b Client seems to be working fine, but you are not able to connect to the network, this error might be due to a configuration mismatch.

For example if LED of your SD-Link11b Client lights, the problem is likely to be caused by a configuration mismatch of:

- \_ Network Name
- \_ Encryption Key (The SD-Link11b Network Name is case-sensitive).

Other causes may be:

- \_ No driver loaded.
- \_ Station not authorized to access network.
- \_ SD-Link11b Client defect.

The most common cause is simple mistake. First check whether the card is inserted properly or not. If the card is inserted properly, the Wi-Fi connection icon should be displayed. If you see the Wi-Fi connection icon, click that icon and check the status by clicking the status tab on the pop-up menu. Check whether any APs are available or not. If you see many APs , select any of one those APs and click connect. If you don't see any APs click refresh button. If you still don't see AP list after refreshing it is possible that no active AP is nearby. You may be in the dead zone. Move around or change the PDA orientations. It may help.

## 6.2.3 Cannot Edit Configuration Profile

If you want to add/edit the Configuration Profile of your SD-Link11b Client but the Client Manager icon is not visible, you may do the following:

- \_ Insert the SD-Link11b card into the device. The Client Manager should pop-up. If nothing happens, the driver is not installed. Install the driver and restart the device. You should see the SD-Link11b icon in the lower right side.

## 6.2.4 Cannot Find the AP

Using the Client Manager utility, check the available access point in the neighborhood by clicking the wireless network tab. If the access point requires WEP key, input the same WEP key the try to connect again. If you do not know the WEP key the AP is using, contact the system administrator to obtain the key.

For identifying the specific AP Use the Client Manager to check the wireless networks available in the neighborhood. If the AP shows ESSID, use the same ESSID to connect the AP. ESSID is assigned to the specific AP for that purpose.

## 6.2.5 The system is very slow

Some devices with non-powerful CPU may suffer their performance significantly. If the system is very slow, check

- If you are opening many windows, close them
- Change the antenna orientation for better signal reception
- Check the signal strength if it is weak move toward the AP.

## 6.2.6 It Takes a Long Time to Shutdown

Unplug the SD-Link11b from the HP iPAQ2215 and View sonic V37 after turn off the host device will pop-up the Windows again. Similarly when the card is inserted while the system is off will pop-up Windows. This is because SD-Link11b card in or out triggers the system to wake up. If this happens, pull the card and keep switch off for a few times until the system is completely off.

Leaving the SD-Link11b card in the system will not shut down the device (it is in hibernated condition).

## 6.2.7 SD-Link11b Does Not Operate After Returning From the Stand-by or Sleeping Mode



This may happen when the driver is not functioning. Reinstall the SD-Link11b driver again. If you have the same problem, please contact C-guys.

## 6.3 Upgrading Tips

### 6.3.1 Upgrading the SD-Link11b Driver

Upgrading the SD-Link11b Driver may be required in one of the following situations:

- \_ You would like to use new features that have become available for your SD-Link11b Client.
- \_ You installed a newer version of the Client Manager tool.
- \_ Your Client Manager "Card Diagnostics" reported a Driver/Firmware mismatch.

#### **CAUTION:**

Upgrading the SD-Link11b Driver should be easy. But if you do not feel comfortable please done it by a skilled LAN Administrator or support engineer who has a working knowledge of the Microsoft operating systems.

#### **A. Download from a PC through the USB cable.**

1. Connect the PC and PDA via an USB cable.
2. Make sure the SD-link11b card is plugged out from PDA.
3. Login to <http://www.c-guys.com/support> by the PC, first.
4. Download the latest driver/updates as instructed and save it to your PC.
5. Open the Activesync (by MS) program at both devices.
6. Double click the application which you saved.
7. The application will open and Activesync will start to transfer the driver.
8. The application will install the latest driver to your PDA.
9. When prompted for overwriting your files, click **YES**.
10. Your new driver is ready.

#### **B. Download wirelessly using the SD-link11b card.**

1. Connect to the <http://www.cguys.com/support> on your PDA.
2. Download the latest driver and save it.
3. Plug out your SD-link11b card from the PDA
4. Double click the application which you saved.
5. The application will install the latest driver
6. When prompted for overwriting your files click **YES**.
7. Your new driver is ready.

#### **C. Download using the SD-memory card.**

1. Connect to the <http://www.cguys.com/support> on your PC.
2. Download the latest driver and save it in the SD memory card.
3. Insert the SD memory into your PDA.
4. Double click the application which you saved.
5. The application will install the latest driver
6. When prompted for overwriting your files click **YES**.
7. Your new driver is ready.

### 6.3.2 Removing the Driver

1. In your PDA, go to Start, then Settings.
2. Click on system Tab.
3. Click on Remove Programs Icon.
4. A new window will open and showing the Installed programs in your PDA.
5. Click on C-guys Inc **sd-link11b** and then click **Remove** button.
6. Click **YES** when prompted.

The Driver is removed.

#### **CAUTION:**

Prior to deleting the files from your hard disk, it is important to remove the drivers as described [above](#).

Failing to do so prevents the Windows operating system from cleaning the Windows Registry, which might lead to complications if you try to re-install the SD-Link11b driver in the future.

If deleting the SD-Link11b Driver files was part of an "Upgrade Driver" routine, you can now (re-)install the new SD-Link11b Driver as described in Chapter 2 "Installing your SD-Link11b Client".

# 7

## Technical support and contact info

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Cupertino, CA 95014  
Telephone : (408) 252-8800  
FAX : (408) 252-8383

# 8

## Warranty & Registration

### C-guys 's 1 Year Warranty

C-guys Inc will repair or replace this SD-Link11b Card free of charge if it ever fails within 1 year from the date of purchase, subject to the conditions set forth below. The warranty applies only to the extent this SD-Link11b Card is used in devices that are compliant with the specifications of the appropriate standards organization.

This warranty applies only to the original purchaser of the C-guys SD-Link11b Card who has proof of purchase, if requested.

This warranty is void if the SD-Link11b Card is not used in accordance with the product instructions or if C-guys determines that any failure has been caused by misuse, neglect, improper installation, repair, alteration or accident. C-guys bears no responsibility for failure or defect caused by any third party product or components whether authorized or not. C-guys does not recommend the use of its products in life support applications where in a failure or malfunction, the product may directly threaten life or injury. This product is intended for consumer end-use only; it is not intended for nor warranted for commercial applications.

If a product fails under the terms of this warranty C-guys will inspect the product and at its option, repair or replace the product. C-guys will ship out a product with equal to or greater capacity. C-guys' sole liability, and the exclusive remedy, for any acknowledged defect(s) shall be the repair or replacement of the product in question. C-guys may, at its sole option, replace the product with a refurbished product.

ALL STATUTORY OR IMPLIED WARRANTIES ARE HEREBY DISCLAIMED TO THE FULLEST EXTENT. C-GUYSShall NOT BE LIABLE UNDER ANY CIRCUMSTANCES FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOST DATA.