# **D-Link DCF-650BT**

# Bluetooth Compact Flash Card

# **Manual**

T 6 - 1 -

Building Networks for People

# **Table of Contents**

Federal Communications Commission Interference Statement	4
PACKAGE CONTENTS	6
NTRODUCTION	7
IARDWARE INSTALLATION	8
SOFTWARE INSTALLATION	9
1.Introduction to Bluetooth Software	
1.1 Bluetooth Icon	12
1.2 Apply power to the Bluetooth Hardware	12
1.3 Uninstall a Prior Version of BTW-CE	13
2.Using the Bluetooth Control Panel	
2.1 General Tab	16
2.1.1 Profiles	17
2.1.1.1 Create A New Profile	18
2.1.1.2 Rename or Delete a Profile	18
2.1.1.3 Save Configuration Settings In A Profile	18
2.2 Accessibility Tab	20
2.3 BTW-CE Service Tabs	21
2.3.1 Common Options	21
2.3.2 File Transfer Tab	23
2.3.3 Information Exchange Tab	24
2.3.4 Serial Port Tab	25
2.3.5 Dial-Up Networking Tab	25
2.4 About Tab	26
3.Using the Bluetooth Manager	
3.1 Tabs	30
3.1.1 My Shortcuts	30
3.1.1.1 Connection Open -Context Sensitive Menu Options	30
3.1.1.2 Connection Status Screen	31
3.1.1.3 Connection Inactive -	
Context Sensitive Menu Options	32
3.1.1.4 Connection Properties Screen	33

3.1.2 Active Connections Tab	3
3.2 Menus	3
3.2.1 New	3
3.2.2 Tools	3
3.2.2.1 Paired Devices	3
3.2.2.2 Business Card Exchange	3
3.2.3 View	3
3.3 lcons	3
4.Bluetooth Browser	
5.Using Remote Device Services	
5.1 Serial Port	4
5.2 Dial-Up Networking: Connect to a Remote Computer	4
5.3 Bluetooth File Explorer	4
5.3.1 Change the Remote Device Folder	4
5.3.2 File Menu	4
5.3.2.1 Send a File to the Remote Device	4
5.3.2.2 Create a Folder on the Remote Device	4
5.3.2.3 Get a File From the Remote Device	4
5.3.2.4 Delete a File on the Remote Device	4
5.3.3 Tools Menu	4
5.3.3.1 Set Local Folder	4
5.3.3.2 Refresh	4
5.4 Send Via Bluetooth	4
WARRANTY AND REGISTRATION	4

## REGULATORY INFORMATION

#### **Federal Communications Commission Interference Statement**

The 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 instruction, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment dose 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.

Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, (example – use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of 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.

#### IMPORTANT NOTE:

#### 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 2.5 cm between the radiator & your body.

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

#### EUROPEAN COMMUNITY CE NOTICE

Marking by the symbol CE indicates compliance of this equipment to the R&TTE Directive 1999/5/CE. Such marking is indicative that this equipment meets or exceeds the following technical standards:

- EN 300 328
- EN 301 489 -1, EN 301 489 -17
- EN 60950

#### LICENSED SOFTWARE

© Copyright 2000 - 2002, WIDCOMM, Inc. ("WIDCOMM"). All rights reserved.

**WARNING**: This software and accompanying documentation are protected by copyright law and international treaties. Unauthorized reproduction or distribution of this software, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.

Use of this software is governed by the terms of the end user license agreement that accompanies or is included with such software. Unless otherwise noted in the end user license agreement, or herein, no part of the documentation accompanying this software, whether provided in printed or electronic form may be reproduced in any form, or stored in a database or retrieval system, or transmitted in any form or by any means, or used to make any derivative work (such as translation, transformation, or adaptation) without the express, prior written consent of WIDCOMM.

#### Registered Trademark(s) ®, Trademark(s)™, and Service Mark(s)™

WIDCOMM, and the WIDCOMM logo are trademarks of WIDCOMM. Inc.

Bluetooth and the Bluetooth logos are trademarks of the Bluetooth SIG, Inc., U.S.A. and licensed to WIDCOMM, Inc.

#### Compaq and iPAQ are trademarks of Compaq Information Technologies Group, L.P.

Microsoft, Windows, Outlook, ActiveSync, and the Windows CE logo (graphic only) are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Other brand and product names may be registered trademarks, service marks, or trademarks of their respective holders.

# **Package Contents**



## **Contents of Package:**

- One Bluetooth Compact Flash Card
- One Installation CD with Drivers, Manual, and Bluetooth Software

If any of the above items are missing, please contact your reseller.

## **System Requirements:**

You must have at least the following:

#### PC

- Windows XP/ME/2000/98SE
- One Available USB Port
- CD-ROM Drive
- Microsoft Active Sync 3.0 or above (free download from www.microsoft.com)

#### PDA

- Type 1 Compact Flash Card Slot
- Windows CE 3.0 (Pocket PC 2000/2002)
- Type A USB Connector

# Introduction

Thank you for purchasing the DCF-650BT! The DCF-650BT is a versatile and complete wireless solution for your personal area network. Upgrade your legacy PDA to Bluetooth connectivity with the DCF-650BT, and connect quickly and simply to all of your personal mobile devices at home or at the office! The DCF-650BT comes complete with Bluetooth software for your Pocket PC, enabling you to manage, configure, and connect to your Bluetooth enabled devices. This manual provides detailed instructions on how to use the software included with your DCF-650BT.

# **Features and Benefits**

## Bluetooth 1.1 Compliant

The DCF-650BT adheres to industry standards and is Bluetooth 1.1 compliant. This ensures interoperability with a wide range of Bluetooth 1.1 devices that share the same Bluetooth configurations and profiles that the DCF-650BT supports.

## **Low Power Operation**

Designed for the mobile user, the DCF-650BT uses a low power radio transmitter which maximizes your PDA's operating time.

## Anytime, Anywhere Wireless Connectivity

The DCF-650BT makes it easier than ever to connect to your Bluetooth enabled devices. Connect to your personal area network at home, at your office, or while you are traveling to a remote site equipped with a Bluetooth network. The DCF-650BT connects quickly and easily to other Bluetooth 1.1 compliant devices.

#### **Bluetooth Software Included**

Everything you needed to get up and running with the DCF-650BT is provided. The included Bluetooth software has a simple and intuitive interface that allows you to quickly configure options for your wireless connections.

# **Hardware Installation**

Insert the DCF-650BT into your handheld device.



Connect your PDA to the computer you are using to install the drivers using the type A USB cable provided with your PDA.



# **Installing the Bluetooth Software**



Before proceeding, make sure that you have ActiveSync installed on the computer that you are using to install the drivers. ActiveSync will sync your computer and PDA and enable you to install drivers on your PDA. You can download ActiveSync for free from Microsoft's website www.microsoft.com.

Insert the driver **DCF-650BT Driver CD** into your CD-ROM drive. You will see the following screen.

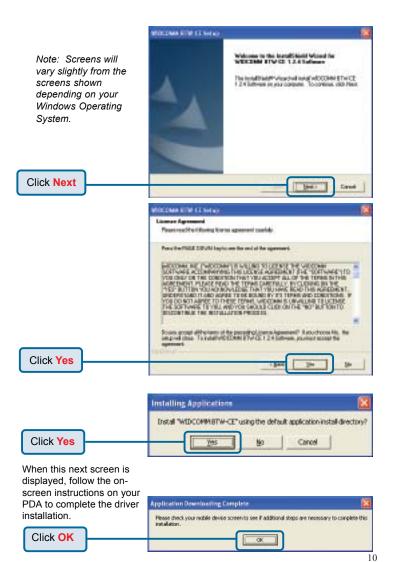
Click Install Drivers



9

If the Autorun screen does not automatically start, click on **Start > Run**, enter "**D:\Autorun.exe**" and click **OK**. "**D**" represents the letter of your CD-ROM drive. Replace it if your CD-ROM drive is a different letter.

Note: If the connection between the PDA and the computer is not ON, an error message will appear. Check if your cable connections are secure and that ActiveSync has established a connection before proceeding.





# Completing the Driver Installation

The Bluetooth software will automatically be downloaded to your PDA. This screen will appear to indicate successful installation.

Select Add a shortcut in the Start menu for easy access to the Bluetooth Manager. Click OK to exit this screen.





Click Finish

Be sure to RESET your PDA to complete the driver installation.

#### 1 Introduction To the Bluetooth Software

BTW-CE is the Bluetooth software included with your DCF-650BT and is the solution for the seamless integration of Bluetooth technology into devices that use the Pocket PC operating system. It provides Pocket PCs with the means to:

- Locate other Bluetooth devices in the immediate vicinity (inquiry)
- · Discover the services that those devices offer (discovery)
- · Connect to, use, and disconnect from those services
- · Enable/disable individual services
- Security features, on a service-by-service basis, including:
  - Authentication
  - Authorization
  - Encryption.

This User's Guide is divided into four major sections:

- · Introduction to the Bluetooth Software
- Using the Bluetooth Control Panel
- · Using the Bluetooth Manager
- Using Remote Device Services—an overview of how to use services provided by remote Bluetooth devices.

#### 1.1 BLUETOOTH ICON

The Bluetooth icon in the lower-right corner of the Today screen provides quick access to the Bluetooth Control Panel.

It also provides visual feedback about whether Bluetooth is "on" or "off":

- When BTW-CE is active ("on") the Bluetooth icon is blue
- If BTW-CE is disabled ("off") the icon appears grayed with a red X in the lower right corner .

#### 1.2 Apply power to the Bluetooth hardware

When the Bluetooth hardware is an expansion device (Compact Flash Card), power is enabled/disabled by inserting/removing the card (Figure 4).

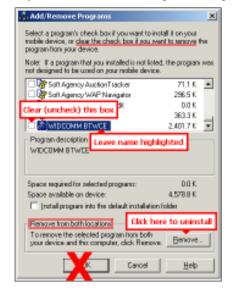
#### 1.3 UNINSTALL A PRIOR VERSION OF BTW-CE

If you have a version of BTW-CE prior to vesion 1.2.0, it must be uninstalled before installing version 1.2.0 or later. For versions 1.2.0 and later this step is not necessary. To uninstall BTW-CE:

- Connect the handheld computer, via its cradle and Microsoft ActiveSync, to the desktop computer.
- 2. On the desktop computer, in the system tray, double-click the ActiveSync icon
- 3. From the ActiveSync Tools menu, click Add/Remove Programs...
- In the list of applications installed on the handheld computer, clear (uncheck) WIDCOMM BTW-CE. Verify that WIDCOMM BTW-CE is still highlighted (see Figure 1).
- Click the Remove button (*DO NOT* click the OK button, see Figure 1).
- 6. Click OK to acknowledge the Remove Application notification.

The prior version of BTW-CE will be uninstalled on both the handheld and desktop computers (follow any additional on-screen instructions that may appear on the desktop computer to complete the uninstall process).

Figure 1: ActiveSync's Tools > Add/Remove Programs... dialog box



## 2 Using the Bluetooth Control Panel

BTW-CE provides a Control Panel to adjust Bluetooth settings. To access the Control Panel, in the lower-right corner of the Today screen, tap the Bluetooth icon BTWCE can have multiple saved configurations. Individual configuration sets are saved in profiles, which can be quickly loaded to meet the appropriate situation. See Section 2.1.1 for more information about profiles.

The Control Panel has seven tabs. All tabs are not visible on the screen at the same time; use the arrows (Figure 2) to the right of the tab names to scroll back-and-forth and expose the different tabs.

Figure 2: Control Panel Tabs, Scroll Arrows



The Control Panel's tabs are (see Figure 3):

- General
  - User profile selection
  - · Bluetooth status (ON/OFF) indicator
  - Hardware power control (ON/OFF).
  - · Shortcut to the Bluetooth Manager.
- Accessibility
  - Set the device name
  - The device's Bluetooth Device Address (BDA)
  - Determine which remote devices are allowed to connect
  - Determine whether remote devices can "see" this Pocket PC.
- Service tabs—BTW-CE can provide four services. They are:
  - File Transfer—set the highest-level directory on this Pocket PC that remote devices will be able to access.
  - Information Exchange—Set the default business card (Pocket Outlook contact entry)
  - Serial Port—Bluetooth serial port information
  - Dial-up Networking—configure the COM port, baud rate and flow control.

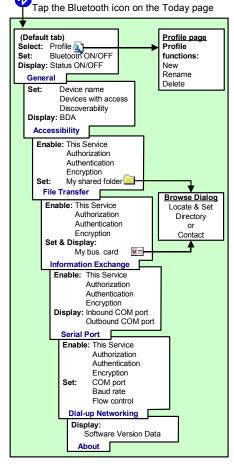
14

- About—there are no configurable options on this tab.
  - · Software version information
  - Copyright information
  - Website and Technical Support links.

Each of these tabs is explained in detail in the remainder of this section.

Figure 3: Configuration Overview

# Bluetooth Control Panel



#### 2.1 GENERAL TAB

There are three options on this screen:

#### · Current Profile:

To change the active profile, tap the down-arrow in the "Current profile:" field and select the new profile from the drop-down list. The current profile will be saved, and the settings from the selected profile will be loaded. To add, delete, or rename a profile, tap (see Section 2.1.1).

#### Bluetooth Status:

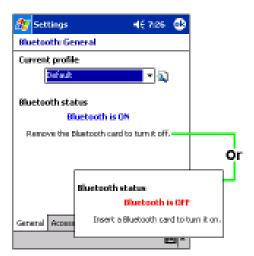
 External Bluetooth hardware (CompactFlash or PC expansion card) (see Figure 4).

#### Bluetooth Manager:

Tapping on this shortcut starts the Bluetooth Manager.

When Bluetooth is OFF, no connections, incoming or outgoing, are possible. When Bluetooth is ON, Bluetooth is always "up" and battery drain is significantly greater than when Bluetooth is disabled. To conserve battery power, do not enable Bluetooth when it is not being used.

Figure 4: Control Panel, General tab, external hardware



#### 2.1.1 Profiles

Profiles are accessed and managed from the Control Panel, General Tab. They allow:

- Different users to quickly re-configure a Pocket PC according to their personal preferences. For example, if multiple users share the same Pocket PC, but each uses it for a different purpose, selecting a preconfigured profile will alter the settings to those of the appropriate user.
- A single user to quickly re-configure a Pocket PC for a different environment. If a PDA is used primarily at the office, but also used when traveling, pre-configured profiles are useful, for example, more secure settings for hotel, airport, or similar "public" environments.

All Bluetooth settings are saved in the active profile. A profile named "Office," for example, may include Bluetooth Authentication and Encryption settings, and connection shortcuts to specific services on work-related Bluetooth devices. A profile named "Public" on the same device may only allow the owner's laptop computer to connect to the Pocket PC. When the "Public" profile is selected, only the Bluetooth settings related to that profile are active.

When the Pocket PC is turned off, BTWCE saves the most recent profile and reloads that profile the next time the device is turned on.

The Profile options (available from the Control Panel, General Tab) are:

- A list of existing profiles—when BTWCE is started for the first time the only profile listed will be "Default." To enable a profile, tap it.
- accesses a screen from which you can: Add a profile
   Rename a profile

#### 2.1.1.1 Create A New Profile

- 1 From the Today screen, tap the Bluetooth icon [].
- 2. From the General tab, tap 1.

Delete a profile.

- From the Add/Delete Profiles screen:
  - a) Tap the New button
  - b) Enter a descriptive name for the new profile, for example, "Office."
  - c) Select an existing profile on which to base the new profile.
- 4. Tap the OK button.

The new profile does NOT automatically become the active profile; to activate the new profile, select it from the "Current Profile" field on the General Tab.

#### 2.1.1.2 Rename or Delete a Profile

- From the Today screen, tap the Bluetooth icon [].
- 2. From the Bluetooth Control Panel, General tab, tap [1].
- 3 From the Add/Delete Profiles screen:
  - a) Tap a profile name, then the Rename button and enter the new

Or

b) Tap a profile name, then the Delete button.

#### 2.1.1.3 Save Configuration Settings In A Profile

When you make changes to the Pocket PC's configuration, those changes are automatically saved when you select a different profile, turn Bluetooth off, or shut down the Pocket PC.

To save a specific configuration:

- 1. Select (or create and then select, see Section 2.1.1.1) the desired profile (for example "Travel") from the Current Profile field on the General Tab
- 2. Setup the Pocket PC so that it behaves in the desired manner.
- 4. Close the Control Panel; the changes are saved automatically.

To use the Travel profile and its associated configuration in the future, from the Control Panel, General Tab, select "Travel" from Current Profile drop-down list.

To avoid saving unwanted changes to a regularly used profile, create a new profile that is based on the profile currently in use (see Section 2.1.1.1), select the new profile, and then make the changes while the new profile is active.

NOTE: If Bluetooth is OFF, changes will not be saved. The error box to the right appears unless Don't show this message again has been selected.



#### 2.2 ACCESSIBILITY TAB

Figure 5: Control Panel, Accessibility tab



All information on this tab is saved with the active profile, including the device name.

The options on the Accessibility tab are:

- Device Identification:
  - Name—the name of this device, as displayed to remote devices when the associated profile is active. To change the device name associated with this profile, highlight the name and enter the new name.
  - Address—the Bluetooth Device Address (BDA) of this device. This information is permanently associated with the Bluetooth hardware during the manufacturing process and cannot be changed.
- Accessibility:
  - Allow other devices to connect—when this option is enabled, other devices are permitted to connect to this device. Two other options accessibility options are as follows: 19

- All devices—select this option to allow all devices to connect.
- Paired devices only—select this option to allow only devices that have a paired relationship (see Section 3.2.2) with this device to connect.
- Other devices can discover me—when this option is enabled, other Bluetooth devices can see and report this device.
   Even though remote devices cannot discover this device unless this option is checked, if a remote device has this device's Bluetooth Device Address, that device may still be able to connect to this device (see Note below).

NOTE: The ability of remote devices to connect is also subject to security restrictions and whether Bluetooth is enabled on this device.

#### 2.3 BTW-CE SERVICE TABS

The functions that a Pocket PC can provide to other devices are called "Services." The services that this Pocket PC is capable of providing are:

- · File Transfer—file-related operations such as get/use/delete a file, etc.
- Information Exchange—Send the default business card (Pocket Outlook contact) on request.
- Serial Port—Bluetooth serial port operations. Bluetooth serial ports are used as a replacement for a physical cable between devices.
- Dial-up Networking—provide access, via a phone line or other access system, to a remote computer network such as an Internet service.

Each of these service tabs is explained in detail in the remainder of this section.

#### 2.3.1 Common Options

All of the services have some common settings. Even though the options are the same, in each case they are specific to the service being configured on the individual tabs.

The common options are listed under the **About this service** heading on each individual service tab. They are:

- Enable service: check this option to have the service start when BTW-CE initializes. When this option is enabled the service is enabled and "listening" for connection attempts when Bluetooth is enabled.
- Authorization required: check this option to require that each attempt to establish a connection be individually authorized. When Authorization is enabled and a remote device attempts to connect to this service, BTW-CE asks if the connection should be permitted.

- Authentication (Passkey) required: check this option to require a
  passkey or a Link Key from the remote device before allowing the
  connection. When this option is enabled and a remote device attempts
  to establish a connection, the Bluetooth Passkey screen (Figure 6)
  appears. Enter the passkey to allow the connection to proceed, or tap
  the OK button to deny permission for the connection. If the notification
  is ignored, the connection attempt will time out (fail).
- Encryption required: check this option to require that all the data exchanged between this device and the remote Bluetooth device be encrypted.

Encryption depends on the key that is used for Authentication; if Authentication is not enabled, Encryption will not be available. Only the data exchanged by the Bluetooth devices is encrypted.

The individual services, and their unique options, are explained in the remainder of this section.

Figure 6: Bluetooth Passkey screen



#### 2.3.2 File Transfer Tab

Figure 7: Control Panel, File Transfer tab



The options on this tab only affect *Incoming File Transfer connections*. All of the Common Options (see Section 2.3.1) are available.

There is one additional configurable item: "My shared folder," which allows you to specify the default File Transfer directory, the highest level directory on this Pocket PC that remote devices have access to.

To change the default File Transfer directory, tap  $\underline{\ }$ , navigate to the desired directory, and then tap the OK button.

#### 2.3.3 Information Exchange Tab

Figure 8: Control Panel, Information Exchange tab



The Common Options (see Section 2.3.1) on this tab only affect *Incoming Information Exchange connections*.

There is one additional configurable item: "My business card (vCard)".

The "My business card" information comes from a selected record in the Contacts list of Pocket Outlook. Information from the selected record is sent to remote devices on request. It is also the contact information that is sent when you select "Send your business card to one or more recipients" while using Business Card Exchange. The default selection is "none" (no information).

To select a vCard, tap , choose a contact from the list, and then tap OK.

To discontinue sending contact information when it is requested, tap, choose "(none)" from the list, and then tap OK.

23

If you reach the contacts list by mistake, tap OK to return to the previous screen.

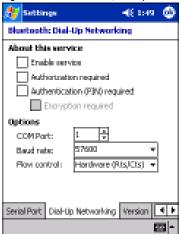
#### 2.3.4 Serial Port Tab

Figure 9: Control Panel, Serial Port tab

🏂 Settinge	<b>-4</b> € 1:46	0
Bluetooth: Serial Port		
About this service		
✓ Erable service		
<ul> <li>Authorization required</li> </ul>		
Authentication (PIN) re	quired	
Encryption required	f	
Ports		
Inbound COM Port:		
Outbound COM Ports 8		
_		
Information Exchange   Serial	Port DiaHU	4 F
		65 Ja

#### 2.3.5 Dial-up Networking Tab

Figure 10: Control Panel, Dial-up Networking tab



The options on this tab only affect *incoming Dial-up Networking connections*. All of the Common Options (see Section 2.3.1) are available.

There are three additional items:

- COM Port: select the communications port to be used.
- Baud rate: tap the down-arrow and select a baud rate from the dropdown list. The options range from 1,200 to 115,200 baud, in nine steps.
- Flow control: tap the down-arrow and select the type of flow control to be used from the drop-down list. The options are:
  - Off
  - Hardware (Rts/Cts).

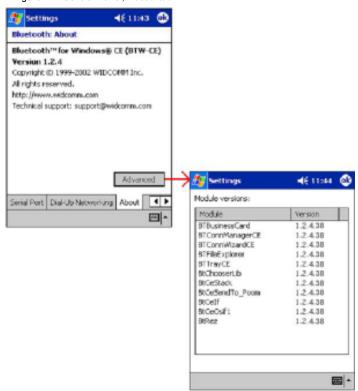
#### 2.4 ABOUT TAB

This tab provides:

- Release Version information
- Copyright notice
- · Website address
- · Technical support email contact address
- An Advanced Button, which displays a screen that contains version information about the individual software modules that make up BTW-CE.

There are no configurable options on this tab.

Figure 11: Control Panel, About tab



## 3 Using the Bluetooth Manager

The Bluetooth Manager allows you to set up connections and communicate with remote devices using Bluetooth. The Bluetooth Manager is accessed as follows:

- From the Today screen, tap Start> Programs > Bluetooth Manager.
   OR -
- From the Today screen, tap Start > Bluetooth Manager. This option is available if you checked off Add a shortcut in the Start menu when you installed BTW-CE.

The Bluetooth Manager (see Figure 12):

- Tabs:
  - My Shortcuts—displays shortcuts and establishes connections
  - Active Connections—displays active incoming and outgoing connections
- · Menus:

#### New

 Connect!—create a new connection shortcut using the Bluetooth Connection Wizard

#### Tools

- · Paired devices—pair/un-pair with other devices
- Business Card Exchange—open the Business Card Exchange.

View—controls the on-screen display (icons or list).

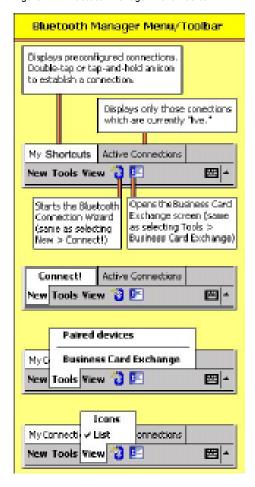
- Icons:
- Accesses the Bluetooth Connection Wizard, which helps you setup connections with remote Bluetooth devices. This icon is a shortcut to the New > Connect! menu item.

Accesses the Bluetooth Business Card Exchange screen. This icon is a shortcut to the Tools > Business Card Exchange menu item. It allows you to:

- Get a business card from a remote device
- Send your business card to a remote device
  - Exchange business cards with a remote Bluetooth device.

These options are explained in detail in the remainder of this section.

Figure 12: Bluetooth Manager Menu/Toolbar



#### 3.1 TABS

The two tabs at the bottom of the Bluetooth Manager screen are:

- My Shortcuts
- Active Connections

#### 3.1.1 My Shortcuts Tab

The default tab on the Bluetooth Manager is My Shortcuts. This screen displays the shortcuts that have been created for connections to other devices. The icons provide visual feedback about the status of the connection (see Figure 13). Double arrows and a highlighted green device icon indicate an active connection.

Figure 13: Connection Status displayed by icon color



#### Connection Icons:

- If the connection is not open—double-tap its icon to establish a connection
- If the connection is open—double-tap its icon to display the connection Status screen (Figure 14)

Connections can also be opened/closed, and other options accessed, using the tapandhold technique. If you tap a connection icon and hold the stylus in place for a few seconds, a context sensitive menu appears.

The options on the context sensitive menu depend on whether the connection is active or not.

#### 3.1.1.1 Connection Open—Context Sensitive Menu Options

From the My Shortcuts screen, tap-and-hold a connection shortcut that is associated with an ACTIVE connection to access the context sensitive menu.

The Menu options are:

- · Disconnect-close the open connection
- Status-select this option to display the Connection Status screen (Figure 14)

#### 3.1.1.2 Connection Status Screen

This screen displays:

- · The connection's name
- The remote device's name
- · The connection status: Connected/Not Connected
- · The length of time the connection has been active
- Activity information:
  - · The amount of data Sent
  - The amount of data Received
- A graphic signal strength indicator.

Figure 14: Connection Status Screen



#### 3.1.1.3 Connection Inactive—Context Sensitive Menu Options

From the My Shortcuts screen, tap-and-hold a connection shortcut that is associated with an INACTIVE connection to access the context sensitive menu.

The menu options are:

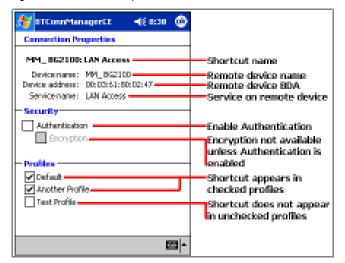
- Connect—select this option to establish a connection (double-tap default).
- Rename—select this option to rename the connection shortcut. This option is often used to rename shortcuts that were created in a group (see Section 1.1.1.1 for information about creating shortcuts). When multiple connection shortcuts are created at the same time, they are given default names and no option is provided at that point to change the default.
- Delete—select this option to permanently delete the connection shortcut.
- Properties—select this option to display the Connection Properties screen (Figure 15).

#### 3.1.1.4 Connection Properties Screen

This screen displays:

- · The connection's name
- Connection Properties—non-configurable information about the remote device, including:
  - · The remote device name
  - The remote device Bluetooth Device Address (BDA)
  - The name of the service on the remote device that this shortcut accesses.
- Security—enable/disable Authentication and Encryption.
- Profiles—a list of the available profiles on this device. To assign, or remove, this connection shortcut to/from a profile, select or clear the profile's associated check box.

Figure 15: Connection Properties screen



#### 3.1.2 Active Connections Tab

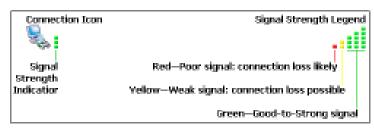
This tab displays the currently active Outgoing and Incoming Connections on the Pocket PC.

To the right of each active connection icon is a signal strength indicator (Figure 16).

Tap-and-hold a connection to access a context sensitive menu. The menu options are:

- · Disconnect—close this connection
- Status—display the connection Status screen (Section 3.1.1.2 and Figure 14).

Figure 16: Active Connections screen, signal strength



32

#### 3.2 MENUS

There are three menus on the bottom of the Bluetooth Manager. They are:

- New
- · Tools
- View.

#### 3.2.1 New

The New menu has only one option; Connect!

Connect! starts the Bluetooth Connection Wizard, which walks you through the process of creating a connection. The first screen lists several types of connections you can create. Choose the type of connection, then click **Next**. The next pages(s) will guide you through establishing the parameters of the desired connection. The exact content of the page(s) depends on the type of connection being created. On any given page, where applicable, choose **Next** to move to the next page, or **Back** to return to the previous page to make your changes.

Figure 17: Connection Wizard, specific service chosen, last screen



#### 3.2.2 Tools

The Tools menu has two options. They are:

- Paired devices
- Business Card Exchange

#### 3.2.2.1 Paired devices

When two devices are paired, they share, and exchange prior to each connection, an internally generated security key. This security key, called a Link Key, is based on a unique Bluetooth Device Address, a random number, and a user-defined password.

To pair with another device:

- 1. From the Bluetooth Manager, Tools menu, select "Paired devices"
- 2. On the Paired devices screen, tap Add
- 3. On the Device Pairing screen:
- a) Tap 👔
- b) Tap a device on the "Select a Bluetooth device" screen to return to the prior screen and populate the "Device" field.
- c) Enter the correct password in the "Passkey" field
- 4. Tap OK.

To Remove a Paired Relationship

- 1. From the Bluetooth Manager, Security menu, select "Paired devices"
- 2. Tap a device name to select it
- 3. Tap the Remove button, and then tap Yes in the confirmation dialog.

35

#### 3.2.2.2 Business Card Exchange

Business Card Exchange is accessible from:

- An icon on the Bluetooth Manager's menu bar
- From Tools > Business Card Exchange

Business Card Exchange allows you to:

Send your business card to one or more remote devices.

Request a business card from one or more remote devices.

Exchange business cards with one or more remote devices.

NOTE: To Send or Exchange business card(s) you must first specify your default business card in the Bluetooth Control Panel, Information Exchange tab (see Section 2.3.3).

To Send, Request or Exchange Business Cards

- 1. From the Bluetooth Manager, tap the business card icon ...
- 2. Tap the Send, Request or Exchange icon, as appropriate.
- 3. From the Bluetooth Browser screen, tap the name of the remote device and then tap OK.

#### 3.2.3 View

The View menu has two options. They are:

- Icons—select this option to view the on-screen shortcuts as large icons
- List—select this option to view the on-screen shortcuts in list format.

#### 3.3 Icons

There are two icon shortcuts on the bottom the Bluetooth Manager screen. They are:

- New Connectiona shortcut to the New > Connect! menu item. See Section 3.2.1 for information on how to create a new connection.
- Business Card Exchangea shortcut to the Business Card Exchange menu item. See Section 3.2.2.2 for information on how to use Business Card Exchange.

#### 4 Bluetooth Browser

Various BTW-CE applications require you to select the device you want to connect to. For instance, from the Bluetooth Manager, when creating a connection to explore a Bluetooth device, you must select the device to connect to (See Figure 18).

Figure 18: A screen example where you are required to select a device



Whenever you are required to select a device, the **Bluetooth Browser** window automatically shows up and starts searching for other Bluetooth devices (see Figure 19). As the search progresses, devices will gradually be listed in the window. To select a particular device, simply tap on it (whether the search is ongoing or stopped). This will close the window and return to the previous screen.

37

Figure 19: The Bluetooth Browser window allows you to select a Bluetooth device



The search automatically terminates after a few seconds. You can interrupt it by tapping the **Stop** icon at the bottom left of the screen. Once stopped, you may restart the search(i.e. refresh the list )by tapping the **Refresh** icon .

Note that in some instances, it may be necessary to refresh the list once or twice to "find" all Bluetooth devices.

Located at the bottom of this wizard screen (Figure 20) are:

- A drop-down menu<sup>1</sup> with two options:
  - Preferred<sup>2</sup>—when this option is selected, the wizard attempts to display only those devices that offer the desired service.
  - All devices—select this option to have the wizard display all devices in the vicinity, without regard to the type of service(s) they offer.
- The View menu, which has two options:
  - · Icons—displays the found devices as large icons
  - · List—displays the found devices in a list.
- An icon—the icon that is displayed is determined by what the wizard

#### is doina:

The wizard is searching for devices. When the desired device appears on the screen, tap the device to select it and stop the search.

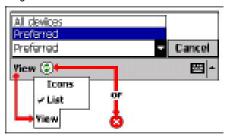
To stop an in-process search, tap 🔞.

- The wizard has completed its search for devices. Tap ( to search again or refresh the screen.
- Cancel button—tap this button to close the "Select a device:" screen and return to the previous screen without changing the selected device.

<sup>1</sup> In some cases, the drop-down menu is not shown when only one type of device is shown.

<sup>2</sup>Another term may be used where applicable (e.g. "Phones")

Figure 20: Bottom of the Select a device wizard screen (composite overview)



## 5 Using Remote Device Services

This section provides overview instructions for using services provided by other devices.

#### 5.1 SERIAL PORT

The use of a Bluetooth wireless serial port connection is identical to the use of a physical cable serial port connection between two devices.

As with a physical connection, the application that will use the connection must be configured to use the correct serial port.

To determine the communications port assigned to the Bluetooth serial port:

- From the Today Screen, tap the Bluetooth icon to open the Bluetooth Control Panel.
- Use the scroll arrows at the bottom-right of the screen to expose the Serial Port tab, and then select the Serial Port tab.
   The Outbound COM Port is listed in the lower portion of the screen.
   Configure the application that will use the Bluetooth Serial Port to send data to this port.

**NOTE:** For information about configuring your application's outbound COM port, refer to the application's documentation.

- From Bluetooth Manager's My Connections screen open the Bluetooth serial port connection to the remote device.
- 4. Send/Receive data from the application.

#### 5.2 DIAL-UP NETWORKING: CONNECT TO A REMOTE COMPUTER

Dial-up Networking allows you to connect to a remote computer via a phone line. Once connected, you can browse the Internet, check your email, etc.

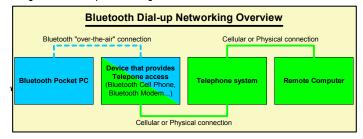
The remote Bluetooth device that will provide the Dial-up Networking service must have access to a telephone system (either a physical or cellular connection).

Devices that might provide the Dial-up Networking service include:

- Bluetooth-enabled cellular telephones
- Bluetooth-enabled desktop computers that are attached to a telephone system
- · Bluetooth modems

The remote computer to which you are connecting must also be attached to the phone system and capable of answering a call.

Figure 21: Dial-up Networking



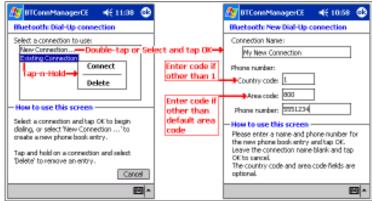
To use Dial-up Networking:

- 1. Create a shortcut to the device that will provide telephone access (see Section 3.2.1).
- From the Bluetooth Manager, My Connections tab, tap-and-hold the Dial-up Networking connection shortcut, and then select Connect from the pop-up menu.
- On the Bluetooth: New Dial-up Connection screen (Figure 22, left), double-tap New Connection.
- A Bluetooth: New Dial-up Connection screen (Figure 22, right) will appear:
- a) Enter a name for the connection
- If dialing outside of the default country setting, enter the country code
- If dialing outside of the default area code setting, enter the area code
- d) Enter the phone number to be dialed.
- 5. Tap OK

To proceed with the connection, you must complete the PocketPC screen(s) that follow(s). Refer to the Windows CE documentation for assistance.

After the connection is active, open a web browser on the Pocket PC.

Figure 22: Dial-up Networking, overview



#### 5.3 BLUETOOTH FILE EXPLORER

Bluetooth File Explorer appears automatically when a File Transfer connection is established. It allows you to:

- · Navigate the directory structure of the remote device
- · View files and folders on the remote device
- · Create new folders on the remote device
- Send files to, and Get files from the remote device
- · Delete and rename files on the remote device.

NOTE: File operations on the remote device are limited to the remote device's configured FTP root directory and its sub-directories.

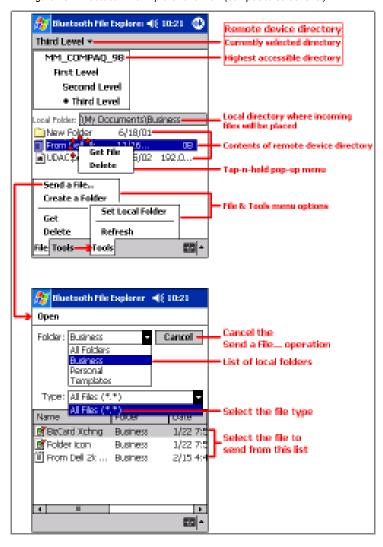
Bluetooth File Explorer also allows you to set the folder on your Pocket PC that will receive inbound files. This folder is configurable on an individual basis for each connection shortcut.

42

Bluetooth File Explorer has two menus:

- · File:
  - Get
  - Rename
  - Delete
  - Send a File...
  - · Create a Folder
- Tools:
- Set Local Folder
- Refresh

Figure 23: Bluetooth File Explorer overview (composite screenshot)



#### 5.3.1 Change the Remote Device Folder

To move down in the directory structure of the remote device, tap the new folder in the main portion of the Bluetooth File Explorer window.

To move up in the directory structure of the remote device, tap the downarrow to the right of the currently selected folder and select the new folder from the drop-down list.

#### 5.3.2 File Menu

All of the instructions in the subsections that follow assume that there is an open File Transfer connection with a remote device.

#### 5.3.2.1 Send a File to the Remote Device

To send a file to the remote device, from the File menu, tap Send a File to display the Open screen.

The options on the Open screen are:

- · Folder—tap the down-arrow and select the folder that contains the file to be sent
- · Type—the only option is "All Files (\*. \*)
- · A list of files in the selected folder: tap the file to be sent
- Cancel button—aborts the Send a File operation.

The selected file is sent automatically when it is tapped, without further intervention, and the Bluetooth File Explorer main screen reappears.

#### 5.3.2.2 Create a Folder on the Remote Device

To create a folder on the remote device, navigate to the folder in which the new folder will be placed, and then, from the File menu, tap Create a Folder. Enter a name for the new folder while the default name (New Folder) is highlighted.

#### 5.3.2.3 Get a File From the Remote Device

To get a file from the remote device:

- 1. Navigate to the folder on the remote device that contains the file
- 2. Tap the desired file to highlight it
- 3. From the File menu, tap Get

The file is copied to the local folder listed in the Local Folder field near the top of the screen.

This operation can also be performed using the tap-and-hold technique: tap-and-hold the desired file and select Get from the pop-up menu.

#### 5.3.2.4 Delete a File on the Remote Device

To delete a file on the remote device: tap the file to be deleted to highlight it, then, from the File menu, tap delete. Tap OK in the confirmation dialog box.

This operation can also be performed using the tap-and-hold technique: tap-and-hold the desired file and select Delete from the pop-up menu. Tap OK in the confirmation dialog box.

#### 5.3.3 Tools Menu

#### 5.3.3.1 Set Local Folder

The local folder, i.e. the folder on the Pocket PC where incoming files are placed, can be configured on an individual basis for each connection shortcut.

To configure the local folder:

- From the Tools menu, tap Set Local Folder.
- Use the drop-down menu at the top of the screen to navigate to the desired folder.
- 3. Tap OK to return to the Bluetooth File Explorer main screen.

The Local Folder field is updated to reflect the new folder selection.

NOTE: The Local Folder information is associated with the shortcut to the connection that is open and is saved with the active profile. A different Local Folder can be associated with each File Transfer shortcut.

#### 5.3.3.2 Refresh

To refresh the list of displayed files and folders on the remote device, from the Tools menu, tap Refresh.

#### 5.4 SEND VIA BLUETOOTH

Pocket Outlook contacts, calendar items, and tasks can be sent individually or collectively to a remote device.

Figure 24: Send via Bluetooth menus



To send data via Bluetooth transfer:

- 1. From the Start menu, Programs, open Calendar, Contacts or Tasks
- Highlight the item(s) to be sent
- Tap-and-hold the item(s), and from the pop-up menu, tap Send via Bluetooth
- On the Select a Bluetooth device screen, tap the name of the destination device, and then tap OK.

# Warranty and Registration

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited warranty for its product only to the person or entity that originally purchased the product from:

- D-Link or its authorized reseller or distributor and
- Products purchased and delivered within the fifty states of the United States, the District
  of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, addresses
  with an APO or FPO.

Limited Warranty: D-Link warrants that the hardware portion of the D-Link products described below will be free from material defects in workmanship and materials from the date of original retail purchase of the product, for the period set forth below applicable to the product type ("Warranty Period"), except as otherwise stated herein.

1-Year Limited Warranty for the Product(s) is defined as follows:

- Hardware (excluding power supplies and fans) One (1) Year
- Power Supplies and Fans One (1) Year
- Spare parts and spare kits Ninety (90) days

D-Link's sole obligation shall be to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund at D-Link's sole discretion. Such repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement Hardware need not be new or have an identical make, model or part. D-Link may in its sole discretion replace the defective Hardware (or any part thereof) with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement Hardware will be warranted for the remainder of the original Warranty Period from the date of original retail purchase. If a material defect is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to repair or replace the defective Hardware, the price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware (or part thereof) that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty: D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. D-Link's sole obligation shall be to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund at D-Link's sole discretion. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Software will be warranted for the remainder of the original Warranty Period from the date or original retail purchase. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates

Non-Applicability of Warranty: The Limited Warranty provided hereunder for hardware and software of D-Link's products will not be applied to and does not cover any product prochased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without

limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

**Submitting A Claim:** Any claim under this limited warranty must be submitted in writing before the end of the Warranty Period to an Authorized D-Link Service Office.

- The customer must submit as part of the claim (a written description of the Hardware defect or Software nonconformance) in sufficient detail to allow D-Link to confirm the same.
- The original product owner must obtain a Return Material Authorization ("RMA") number from
  the Authorized D-Link Service Office and, if requested, provide written proof of purchase of the
  product (such as a copy of the dated purchase invoice for the product) before the warranty
  service is provided.
- After an RMA number is issued, the defective product must be packaged securely in the original
  or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA
  number must be prominently marked on the outside of the package. Do not include any manuals
  or accessories in the shipping package. D-Link will only replace the defective portion of the
  Product and will not ship back any accessories.
- The customer is responsible for all shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products should be fully insured by the customer and shipped to D-Link Systems, Inc., 53 Discovery Drive, Irvine, CA 92618. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped via UPS Ground or any common carrier selected by D-Link, with shipping charges prepaid. Expedited shipping is available if shipping charges are prepaid by the customer.

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

What Is Not Covered: This limited warranty provided by D-Link does not cover: Products, if in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance. Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage: Any hardware, software, firmware or other products or services provided by anyone other than D-Link; Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product. Repair by anyone other than D-Link or an Authorized D-Link Service Office will void this Warranty.

Disclaimer of Other Warranties: EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE HIMITED TO NINETY (90) DAYS. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISKAS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

Limitation of Liability: TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE POREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NON-CONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY

Governing Law: This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This limited warranty provides specific legal rights and the product owner may also have other rights which vary from state to state.

**Trademarks:** D-Link is a registered trademark of D-Link Systems, Inc. Other trademarks or registered trademarks are the property of their respective manufacturers or owners.

Copyright Statement: No part of this publication or documentation accompanying this Product may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from D-Link Corporation/D-Link Systems, Inc., as stipulated by the United States Copyright Act of 1976. Contents are subject to change without prior notice. Copyright® 2002 by D-Link Corporation/D-Link Systems, Inc. All rights reserved.

**CE Mark Warning:** This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

FCC 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 communication. 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 or more 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.
- Consult the dealer or an experienced radio/TV technician for help.

Register online your D-Link product at http://support.dlink.com/register/