

# **56K Bluetooth Modem**

## *User Manual*

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## **Regulatory Statements**

### **FCC Notice**

*This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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 or more of the following measures:*

- 1. Reorient or relocate the receiving antenna.*
- 2. Increase the separation between the equipment and receiver.*
- 3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.*
- 4. Consult the dealer or an experienced radio/television technician for help.*

*Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

- 1) To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.*
- 2) This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.*

#### **Notice 1:**

*The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

## **FCC Requirement**

*This equipment complies with Part 68 of the FCC rules. On the base unit of this equipment is a label that contains, among other information, the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. If requested, this information must be given to telephone company.*

*The REN is useful in determining the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all area, the sum of the REN of all devices connected to one line should not exceed five (5). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum number of REN for your calling area.*

*If your equipment causes harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify you in advance. But if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complain with the FCC. Your telephone company may make changes in its facilities, equipments, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.*

*The equipment may not be used on coin service by the telephone company. Connection to party lines is subject to state tariffs.*

## ***Important Safety Instructions***

1. *Read these instructions carefully.*
2. *Follow all warnings and instructions marked on the product.*
3. *Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.*
4. *Do not use this product near water.*
5. *Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.*
6. *The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation provided.*
7. *This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.*
8. *Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.*
9. *If an extension cord is used with this product, make sure that the total ampere rating of the equipment plugged into the extension cord does not exceed the extension cord ampere rating. Also, make sure that the total rating of all products plugged into the wall outlet does not exceed 15 amperes.*
10. *Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.*

## ***About this Manual***

### ***Purpose***

*This user manual gives you all the information you need to install and operate the modem properly.*

### ***Manual Structure***

*This user manual consists of four chapters:*

#### ***Chapter 1 Getting Started***

*This chapter tells you what items are contained in the package and things that you need to check before you proceed the installation.*

#### ***Chapter 2 Modem Overview***

*This chapter gives you all the necessary information that you need to know about the modem, such as its features and layout.*

#### ***Chapter 3 Setting Up***

*This chapter contains step-by-step procedure on how to install the modem and other necessary peripherals, configure the modem under Windows operating system, and verify the modem installation.*

#### ***Chapter 4 Communication Software***

*This chapter gives tips on how to install and use communication software.*

***For AT commands, please refer to “AT command.pdf” file stored in the packaged CD.***

# **Table of Contents**

## **Chapter 1 Getting Started**

- 1.1 Package Contents*
- 1.2 System Requirements*

## **Chapter 2 Modem Overview**

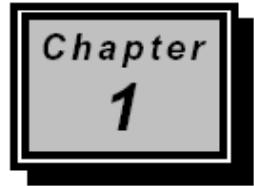
- 2.1 Specifications*
- 2.2 Front Panel*

## **Chapter 3 Setting Up**

- 3.1 ESD Precautions*
- 3.2 Installing the Modem*
- 3.3 Installing the Bluetooth Dongle*
- 3.4 Starting Using the Bluetooth Device*
- 3.5 Using the Bluetooth Places Explorer*
- 3.6 Connecting the Bluetooth Modem*
- 3.7 Uninstalling the Bluetooth Software*

## **Chapter 4 Communication Software**

- 4.1 Installing the Application Program*
- 4.2 Tips on Configuring the Communication Software*



## **Getting Started**

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*Congratulations on your purchase of this Data/Fax/TAM modem. This modem features the latest innovations in high-speed modem design, making electronic communication faster and easier. This User Manual will show you how to install and properly use the modem in order to take full advantage of its features.*

### **1.1 Package Contents**

*Make sure that you have the following items:*

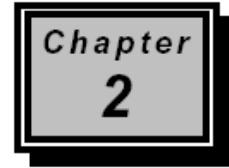
1. *Bluetooth Modem*
2. *Bluetooth USB Dongle (option)*
3. *AC Power Adapter*
4. *User Manual*
5. *CD with Application Software*
6. *RJ-11 Telephone Cable*

*If any of the items is damaged or missing, contact your dealer immediately.*

## **1.2 System Requirements**

*If this package comes with one Bluetooth USB Dongle, please make sure that your laptop or PC meets the following minimum system requirements:*

- *One available USB port*
- *CD-ROM drive*
- *The laptop or PC must have one of these operating systems, i.e., Microsoft Windows98 SE, Millennium, Windows 2000 and Windows XP with USB 1.1 support*
- *Penitum II 300 MHZ MMX-Compatible PC or Greater*
- *At least 64MB hard disk space and memory*



## **Modem Overview**

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*Before you proceed with the installation, it is necessary that you have enough information about the modem. This chapter tells you all you need to know about the modem.*

### **2.1 Specifications**

#### **Modem Features:**

##### *Data Mode:*

*Line Speed: 300 ~ 56000bps*

*Standard Compatibility : ITU-T V.90, V.34, V.32, V.32bis, V.23, V.22bis, V.21, and Bell 103, 212A*

*Error Correction: ITU-T V.42, MNP2-4*

*Data Compression: ITU-T V.44, V.42bis, MNP5*

*Flow Control: RTS/CTS, XON/XOFF*

*Comment Set: TIA/EIA 602 "AT" command set*

##### *Fax Mode:*

*Line Speed: 2400 ~ 14400bps*

*Standard Compatibility: ITU-T V.17, V.27 ter, V.29 and V.21 channel 2*

*Command Set: Class 1, 1.0, 2 and associated AT command sets*

##### *TAM Mode:*

*Digital Telephone answering machine (TAM); Voice mail system*

#### **Bluetooth Features:**

*Bluetooth Specification 1.1 compliant*

*Pico-net and scatter-net support*

*Up to 7 slaves supported*

*Class 1 Bluetooth type*

*Maximum data rates up to 723Kbps*

*Effective ranges up to 100 meters without interference*

#### **General Features**

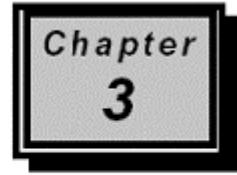
*Line Interface: 2xRJ-11 jacks for line and telephone*

*DTE Interface: Bluetooth interface*

## 2.2 Front Panel

*The LED indicators located on the front panel show the modem's status and activity. The table below lists the function of each LED indicator:*

<i>Label</i>	<i>Name</i>	<i>Description</i>
<i>READY</i>	<i>Ready</i>	<i>Lights when modem's power is on</i>
<i>OH</i>	<i>Off Hook</i>	<i>Lights when modem is dialing/on line</i>
<i>Link</i>	<i>Link</i>	<i>Lights when modem is in Bluetooth mode</i>
<i>RXD</i>	<i>Receive data</i>	<i>Lights when modem is receiving data</i>



## ***Setting Up***

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*This chapter contains detailed instructions on how to install and configure the modem and Bluetooth Dongle as well as how to verify if its installation is correct. We recommend that you follow the steps accordingly to avoid future problems.*

### **3.1 ESD Precautions**

*Electrostatic discharge (ESD) can damage your processor, disk drives, expansion boards, and other system components. Always observe the following precautions before you install any system component.*

- 1. Do not remove a component from its protective packaging until you are ready to install it.*
- 2. Wear a wrist grounding strap and attach it to a metal part of the system unit before handling components. If a wrist strap is not available, maintain contact with the system unit throughout any procedure requiring ESD protection.*

### **3.2 Installing the Modem**

1. *Plug the telephone cable into the LINE jack located at the back of the modem.*
2. *Plug the other end of the telephone cable into a telephone wall jack.*
3. *Plug the AC adapter power cord into the AC 9V connector located at the back of the modem.*
4. *Plug the transformer end of the adapter into a standard AC wall outlet.*
5. *To connect a telephone to the modem:*
  - a. *Plug the telephone to the modem's PHONE jack.*
  - b. *Power on the Modem and lift the handset and listen for a dial tone to check for a working connection.*

**NOTE:** Make sure that your modem is turned off before you plug in the AC adapter. Also check the voltage range in your area before plugging your system into an outlet.

(You can skip 3.3-3.5 steps if you have ever installed one Bluetooth Dongle.)

### **3.3 Installing the Bluetooth Dongle**

**NOTE:**

**DO NOT plug the USB Dongle into an available USB port until you are prompted during the installation process.**

*If you have connected the Bluetooth Dongle to your computer, please remove it, cancel any hardware wizard that may show up, and start here.*

- 1. Close any open programs and insert the packaged CD into your CD-ROM drive. Open Dongle folder and run setup.exe file in the CD.*
- 2. The Welcome screen informs you that the WIDCOMM Bluetooth Software Setup program is ready to begin. Click on the **Next** button.*



- 3. In the License Agreement screen, click on the radio button to the left of "I accept the terms in the license agreement". Click on the **Next** button.*



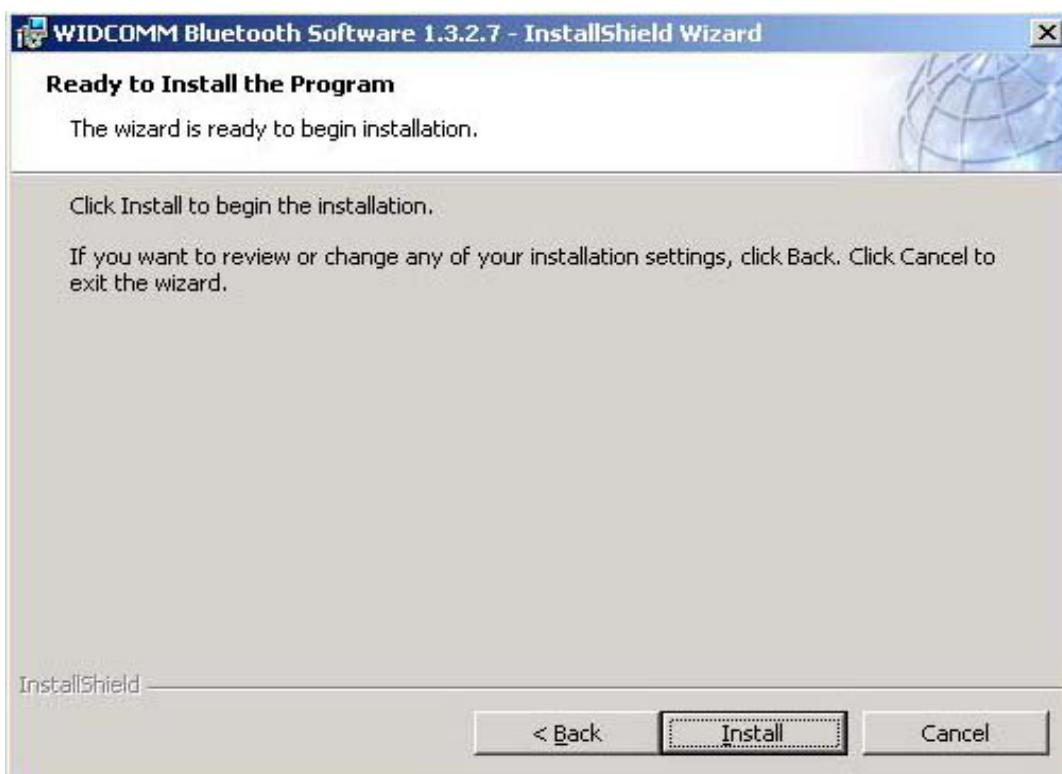
4. *In the Device Information screen: (The screen won't be displayed if you re-installed this software.)*
  - a. *Enter a device name*
  - b. *Select a device type*
  - c. *Click on the **Next** button.*



5. In the Destination Folder screen you are asked to confirm the Destination Folder for the application software. If you would like to, you may change the destination folder to another location as the directory.



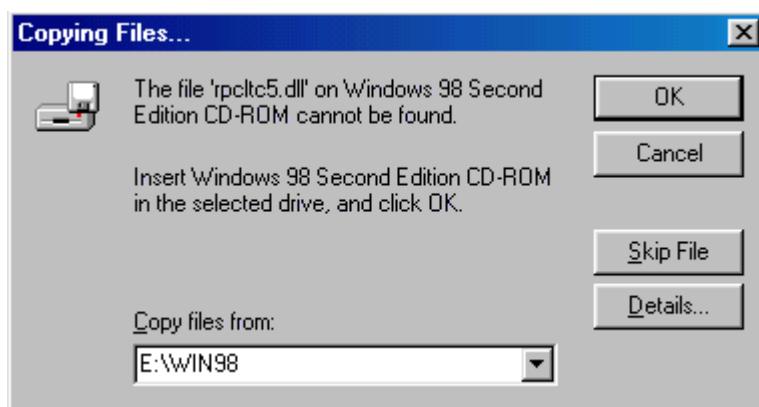
6. The Ready to Install the Program screen informs you that the driver is ready for installation. Click on the **Install** button to continue.



7. For **Windows 2000/XP** users, please click on **OK** button from the following "Driver Signature Notice" dialog box to proceed with installation.



For **Windows 98 Users**, you will be asked to specify the directory of Windows 98 source files path during installation. Please enter the location of the Windows 98 setup files and follow the on-screen description.



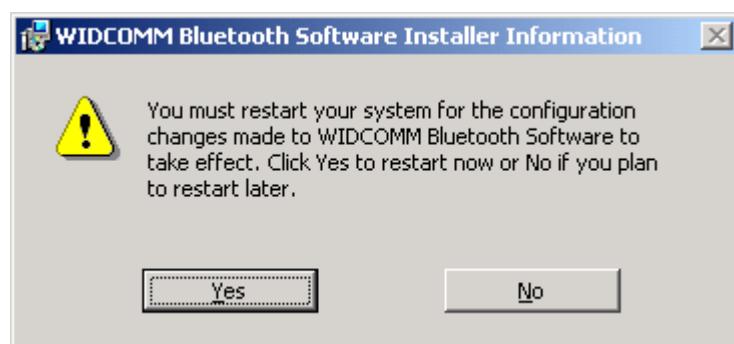
8. Now, plug the **Bluetooth Dongle** into an available **USB port** firmly and click **OK** to continue.



9. When the files have been copied, you will be presented with a screen informing of its completion. Click **Finish** to finish the installation process.



10. Click on **Yes** button to reboot your PC.



### 3.4 Starting Using the Bluetooth Device

After you have the Bluetooth software installed and reboot your PC for the first time, please right-click on the Bluetooth icon  on the system tray and highlight **Start Using Bluetooth**. This wizard will help you quickly configure your Bluetooth Dongle step by step. If you don't want to follow the wizard, just click **Start Using Bluetooth** and configure Bluetooth Dongle later.



### 3.5 Using the Bluetooth Places Explorer

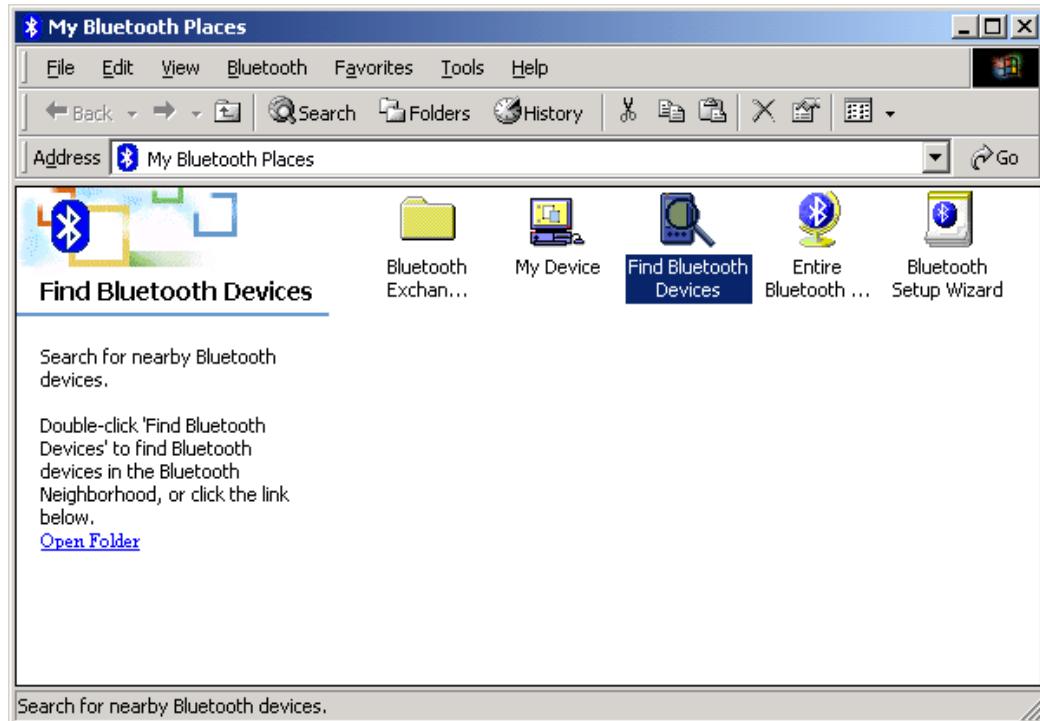
You can double click on the Bluetooth icon in the Windows system tray or double click on the My Bluetooth Places on your desktop to launch the My Bluetooth Places explorer.



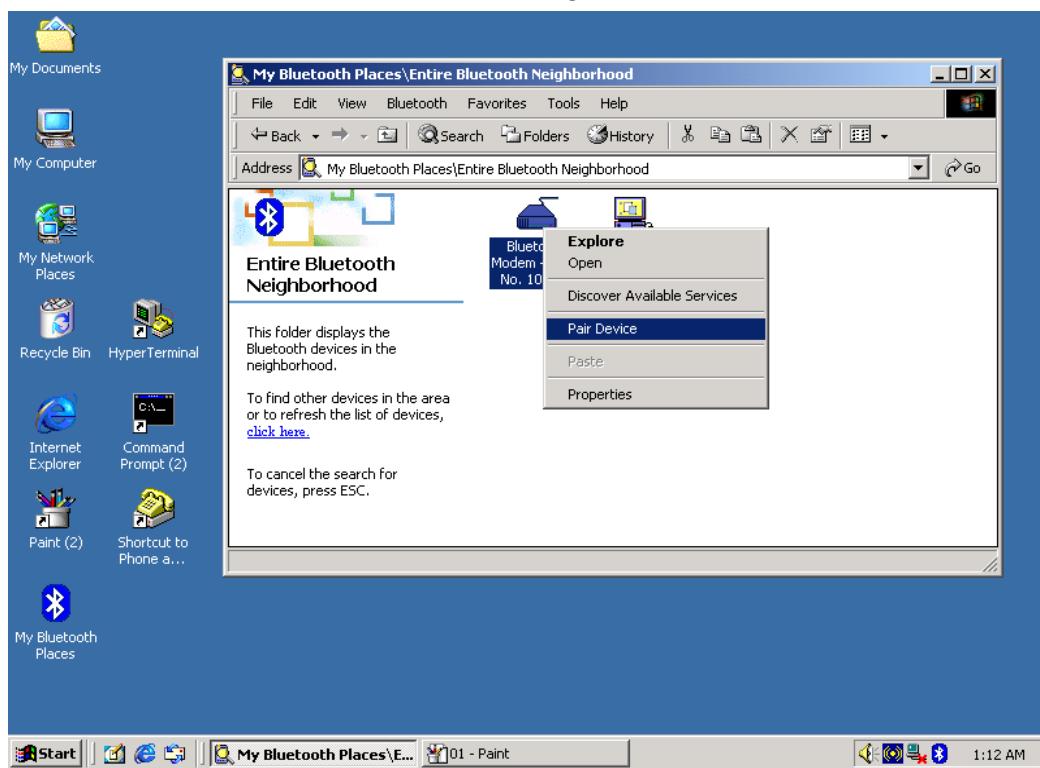
- **Bluetooth Setup Wizard:** Double click this icon and the setup wizard screen will be displayed. It allows you to configure devices, connections and local services.
- **Entire Bluetooth Neighborhood:** Double click this icon to display Bluetooth devices that have been found.
- **Find Bluetooth Devices:** Double click this icon; the system will start to look for Bluetooth devices in the vicinity and displays the devices it finds in the right pane of My Bluetooth Places.
- **My Device:** Double click this icon to display all available services on this computer.
- **Bluetooth Exchange Folder:** Contains files and folders visible to remote Bluetooth devices. Double click it to browse the directory on your system.

### 3.6 Connecting the Bluetooth Modem

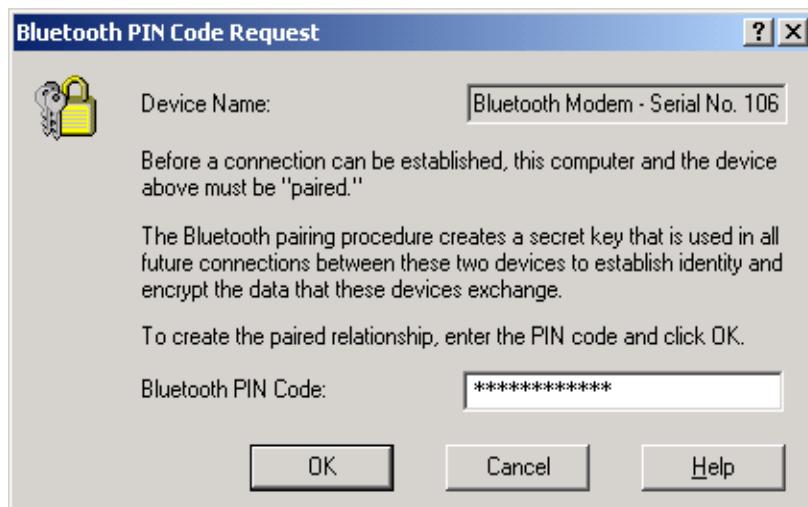
1. Double click **Find Bluetooth Devices**; the Bluetooth Dongle will start to search the Bluetooth Modem.



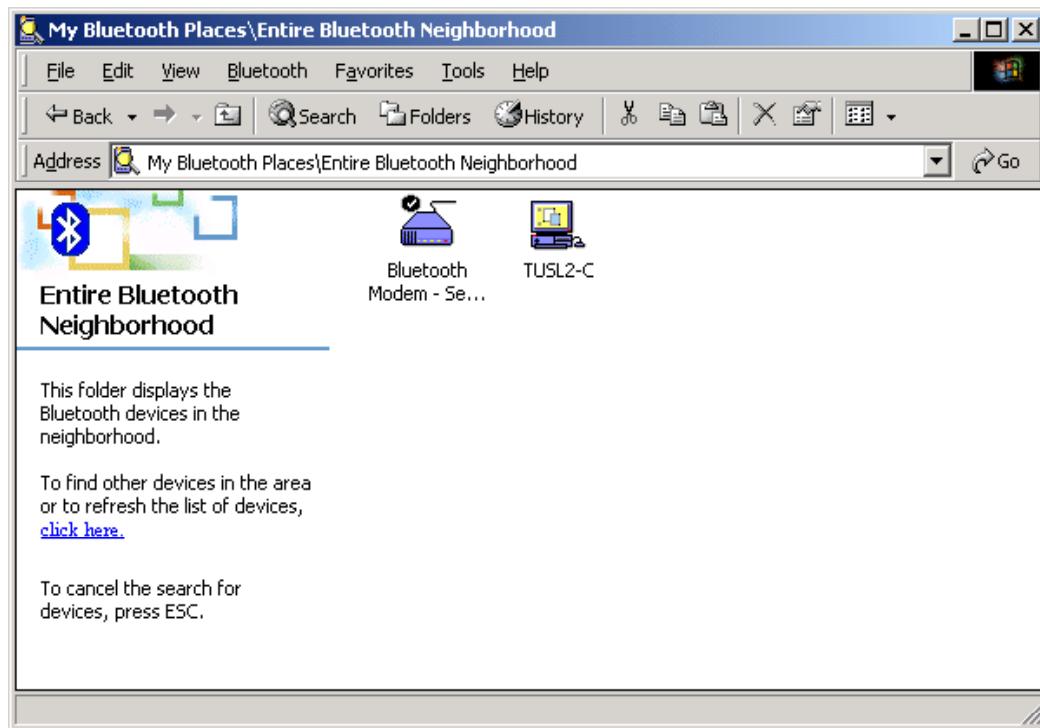
2. The Bluetooth Modem will be found. Right click it and select **Pair Device**.



3. Enter PIN Code which you can find it on the back case of the modem.

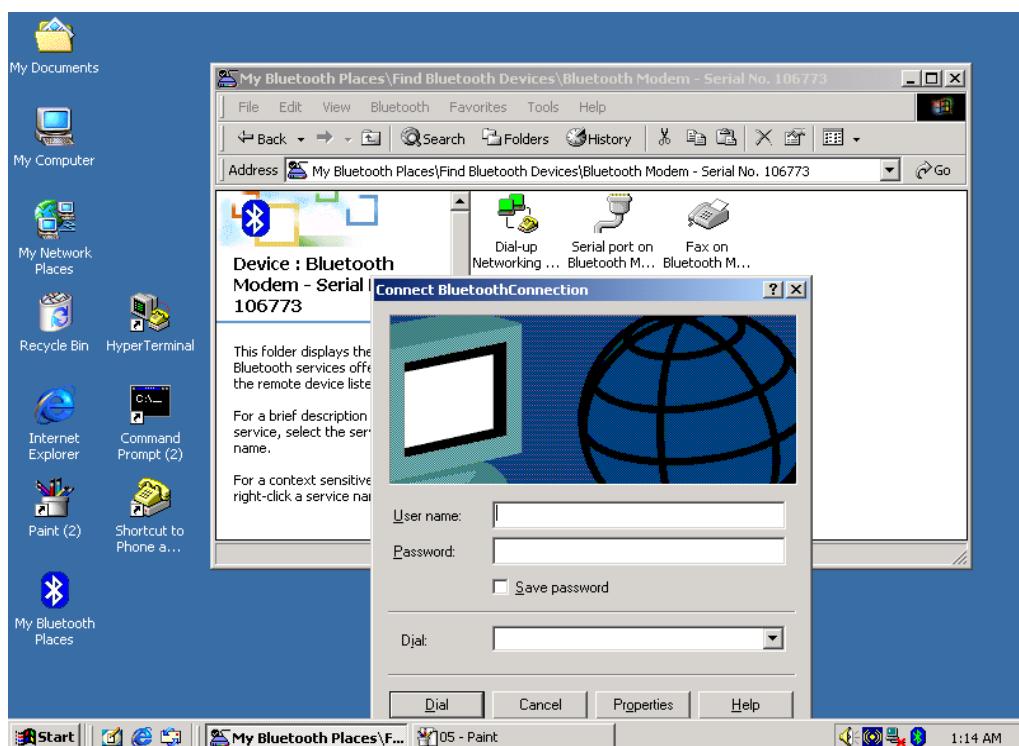
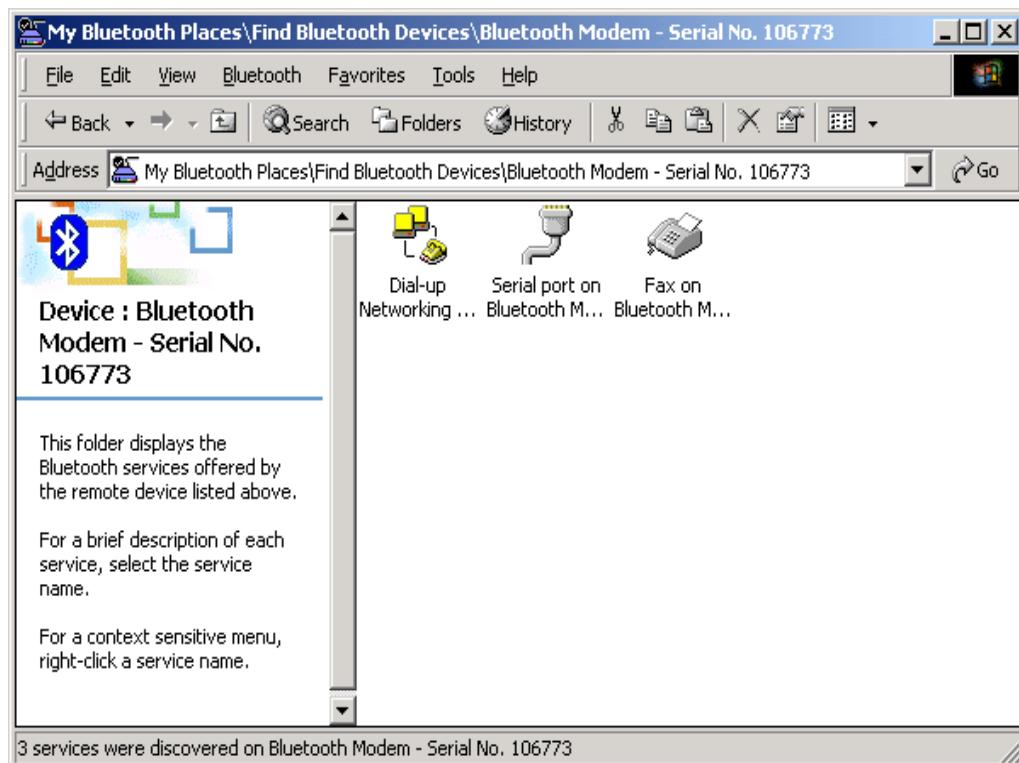


4. While the pairing process is successful, the Bluetooth Modem icon will have a tick mark. Double click the icon to display the remote modem's functions.



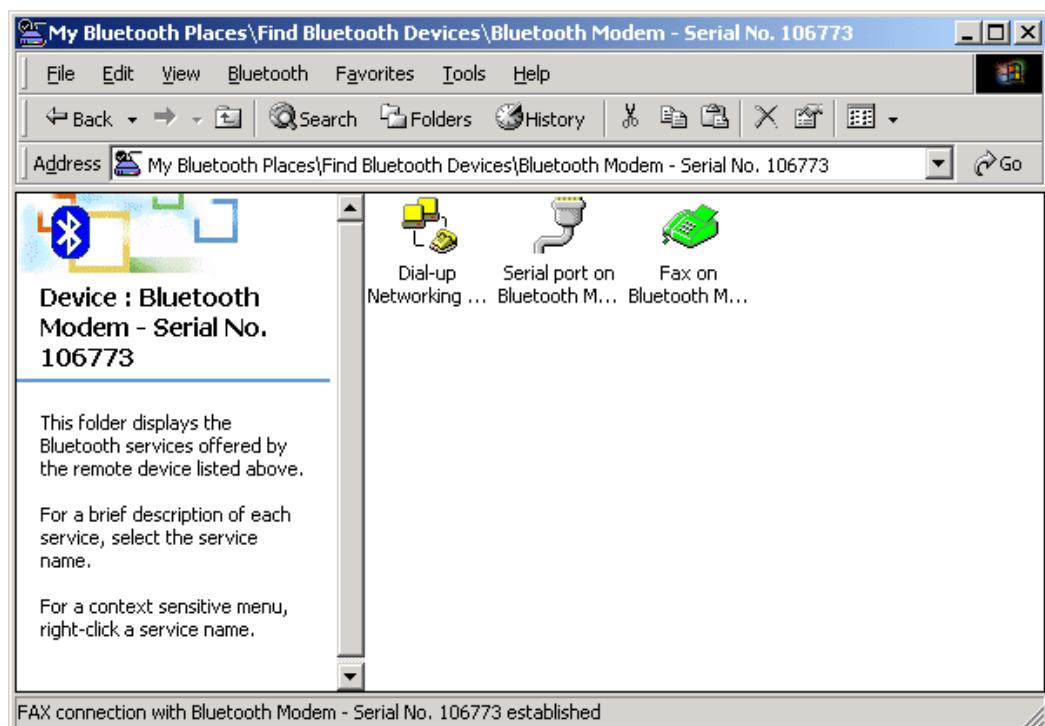
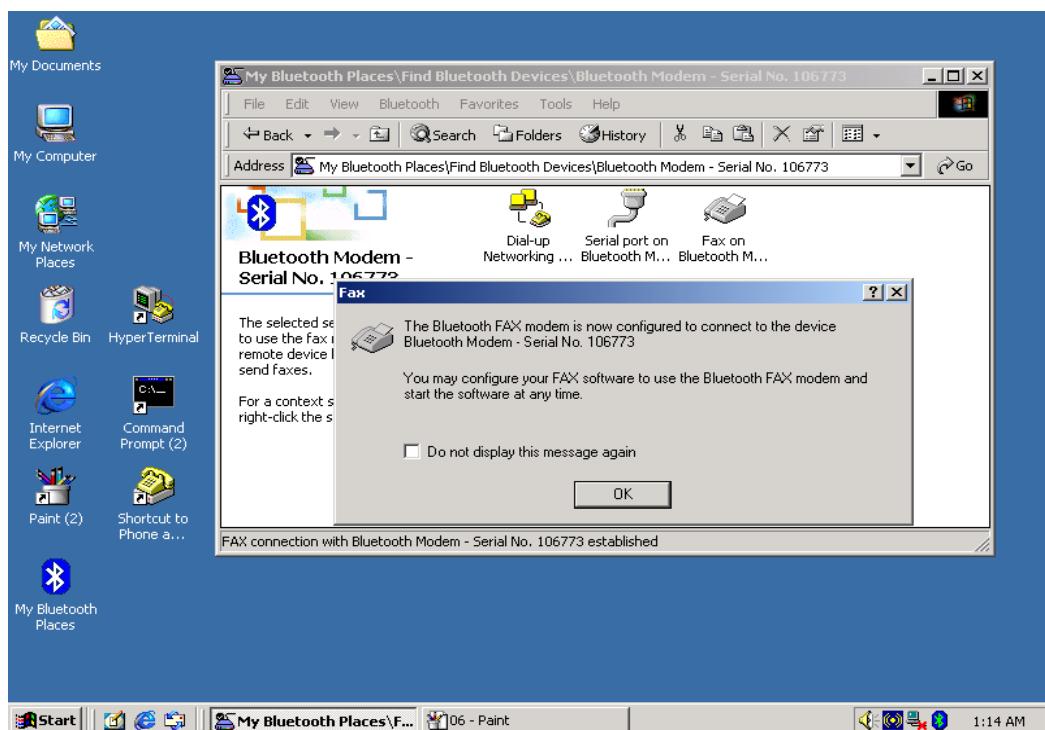
5. You can now use dial-up or fax function of this modem respectively.

- ▶ Dial-up : Double click **Dial-up Networking** and enter User name, Password and Dialing number to start Internet connection.



- ▶ **Fax :** Double click **FAX on Bluetooth Modem** to start the modem's fax function. The **Fax on Bluetooth Modem** icon will change color into green when it is successfully connected. Open **BVRP** folder and run **setup.exe** file in the CD. Select **Bluetooth Fax Modem**. Click **OK** to

*start the fax function.*





### 3.7 Uninstalling the Bluetooth software

*If you are installing the Bluetooth software for the first time, please skip this section. Any previous versions of the Bluetooth software must be uninstalled before installing an upgraded version.*

**NOTE:**

**Before uninstalling, please unplug the Bluetooth Dongle first.**

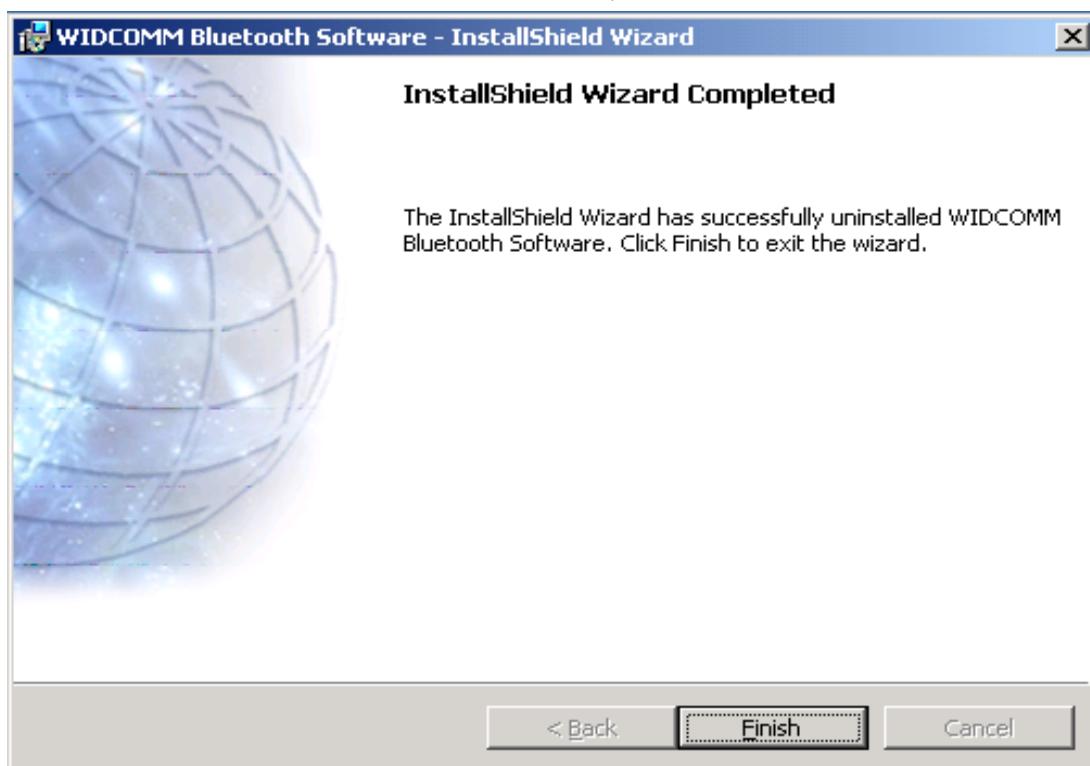
1. From your PC desktop, click **Start** -> **Settings** -> **Control Panel** -> **Add/Remove Programs** -> **WIDCOMM Bluetooth Software** -> **Remove**
2. The screen will guide you to **Modify**, **Repair** or **Remove** the software. Click on the **Next** button to continue.



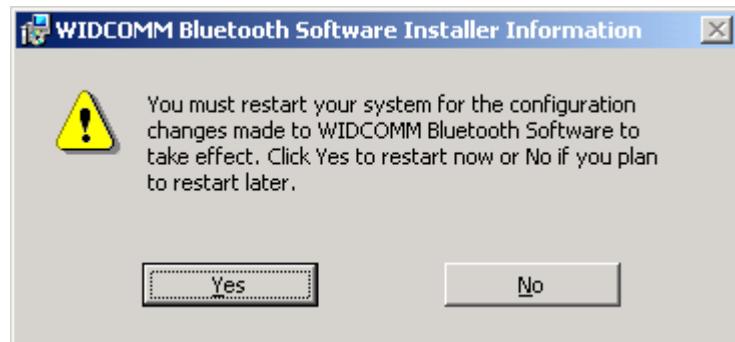
3. Click on the **Remove** button from the “Remove the Program” screen.

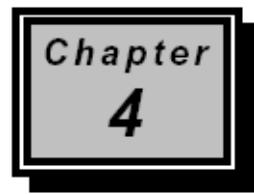


4. When the software has been removed, click on the **Finish** button.



5. Click on the **Yes** button to reboot your PC.





## ***Communication Software***

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*This chapter gives you tips on how to configure your communication software.*

### ***4.1 Installing the Application Program***

*To install the application program, simply insert the packaged CD into the CD-ROM drive. Open BVRP folder and run setup.exe file in the CD. Follow the instructions appears on the screen for the software installation. Refer to the application program guide in the CD for more details.*

*If you want to use other communication program, please refer to section 4.2 for more details.*

## 4.2 Tips on Configuring the Communication Software

*This modem uses the most up-to-date industry and commercially popular standards to ensure functional compatibility with most communication software. During initial setup of the communication software, it will normally prompt you to define the type of fax/modem that you are currently using. The following list guides you on how to select the proper device type.*



*The device type only defines the protocol by which your software will communicate with your fax/modem and does not set nor limit the speed.*

- 1. For the Baud rate, choose any speed between 38,400 to 115,200. Your fax/modem will automatically adjust to the optimum transmission speed after successfully connecting with a remote fax/modem.*
- 2. There are three flow controls: None, Hardware (CTS/RTS), and Software (XON/XOFF). Set your software to use either Hardware or Software flow control. If "None" is selected, the communication software will not be able to detect a buffer overflow and result in transmission errors.*
- 3. For fax device type, choose TR29 Class 1.*
- 4. For fax speed, choose automatic or fastest speed. Your fax/modem will automatically adjust to the optimum transmission speed after successfully connecting with a remote fax machine or another fax/modem.*
- 5. Make sure that you have correctly set all the other parameters required by the software to operate successfully.*
- 6. Refer to your Communication software manual for details.*