# Bluetooth Module WB110C (WB110C-IW)

**User's Manual** 

### **Federal Communication Commission 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.
- Consult the dealer or an experienced radio/TV technician for help.

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.

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.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

### **IMPORTANT NOTE:**

## FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

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

### **USERS MANUAL OF THE END PRODUCT:**

The end user has to be informed that the FCC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. If the size of the end product is smaller than 8x10cm, then additional FCC part 15.19 statement is required to be available in the users manual: 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.

### LABEL OF THE END PRODUCT:

The final end product must be labeled in a visible area with the following "Contains TX FCC ID: PPQ-WB110C/PPQ-WB110CIW". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: 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.

Hereby, Lite-On, declares that this device is in compliance with the essential requirement and other relevant provisions of the R&TTE Driective 1999/5/EC. "經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時,應立即停用,並改善至無干擾時方得繼續使用。前項合法通信,指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。"本模組於取得認證後將依規定於模組本體標示審驗合格標籤,並要求平台廠商於平台上標示「本產品內含射頻模 CC XX xx YY yyy Z z W字樣,詳細資料請參考使用說明書。 本公司已於說明書中提供所有必要資訊以指導使用者/安裝者正確的安裝及操作。

The module will only be sold to and installed by appointed OEM or ODM installers.

# 1 INTRODUCTION

## 1.1 WB110C (-IW) Bluetooth Module

WB110C (-IW) Bluetooth Module uses CSR BC4 ROM A07 chip which fully qualified Bluetooth v2.1+EDR system.

The features of Bluetooth V2.1 is improved pairing, improved security, lower power consumption, and near field communication technology.

With Enhanced Data Rate (EDR mode), the rate up to 2Mbps and 3Mbps.

This module controls in USB interface and is compliance with USB v1.1 and compatible with USB v2.0. It being used to integrate with systems such as NB, desk top...etc. With Bluetooth module embedded inside, a system could provide the ability to link with peripherals wirelessly through Bluetooth function.

## 1.2 How to works

The module refers to a worldwide Bluetooth SIG standard. Before transfer data to each other, two BT modules must establish a connection. One device requests the connection with another and the second one accept it. Then user can use different data transfer function wirelessly between two Bluetooth devices.



## 1.3 Product Features

Bluetooth® V2.1+EDR system (backwards compatible with v1.1/1.2 /2.0devices)

Class II (Max +4 dBm, 2.5mW)

4Mbits integral ROM

Enhanced Data Rate (EDR) compliant for both 2Mbps and 3Mbps modulation modes

**Integrated Printed Antenna** 

**Tiny Form Factor** 

Support OS: Windows based OS

Full-speed Bluetooth operation with full Piconet support

Scatternet support

Extended SCO (eSCO) support

1.8V core, 1.7 to 3.6V I/O

Low-power 1.8V operation (integral 1.8V regulator)

USB and dual UART ports to 3Mbaud

Support for 802.11 coexistence

**RoHS** Compliant

Standards	Bluetooth V2.1 + EDR
Interface	USB
Form Factor	ACES 87213-0800G connector
Data Rate	Data Rate: 1 Mbps, 2Mbps and Up to
	3Mbps
Frequency Range	2.402~2.480 GHz
Transmit Output	2 ± 1 dBm Class 2 Device
Power	
Receiver Sensitivity	< 0.1% BER at -78 dBm
Operating Voltage	3.3 V DC +/- 10%
OS supported	Windows based OS
Bluetooth stack	CSR HCI stack
Power Consumption	TX mode: 58mA
	RX mode: 46mA
	Stand by mode: 12mA
Coverage	Up to 10m (Varies depending on operating
	environment) *
Antenna Type	Printed Antenna

# 1.4 System Requirements

System should meet the following items:

- -MB supports matched USB connector
- -Windows XP/Vista
- -60MB free disk for installing the Toshiba stack

# 1.5 WB110C(-IW) Product View





# 2 Using the Bluetooth Utility

# Using the Bluetooth Utility

Actual examples of how to establish a connection to a *Bluetooth* wireless technology device using the *Bluetooth* Utility are described in this section.

Also provided are descriptions of more convenient methods as well as detailed information on the *Bluetooth* Utility functions.

- Flow of operation
- Basic settings
- Make the most of your Bluetooth wireless technology device
- Advanced features
- Details of Bluetooth Utility functions



• The *Bluetooth* Utility operates under Windows Vista, Windows XP and Windows 2000. The descriptions in the examples mainly pertain to operation under Windows Vista.

Windows Vista: Microsoft® Windows Vista™ Operating System Windows XP: Microsoft® Windows® XP Operating System Windows 2000: Microsoft® Windows® 2000 Operating System

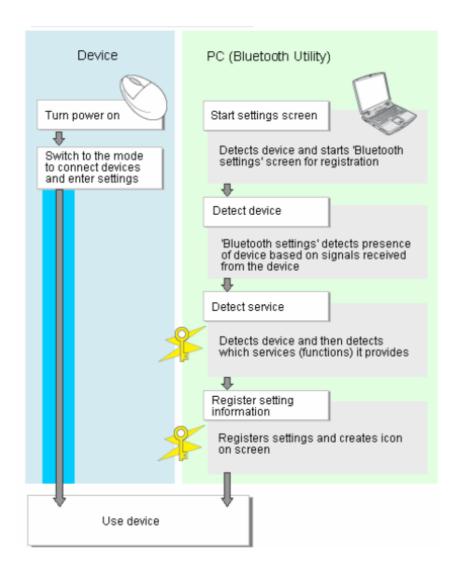




The procedure below is used to set up *Bluetooth* wireless technology devices using the *Bluetooth* Utility.



• It is assumed that the set-up is performed from the [Bluetooth Settings] window.





Enter Bluetooth passkey (PIN code), if required by the device.



- During these stages of the set-up process, the *Bluetooth* wireless technology device must be set to Connectability mode.
  - \* Simply turning the power on will activate Connectability mode in certain devices. Please refer to the device instruction manual for further details.

# Basic settings

Methods for registering new devices using the *Bluetooth* Utility shall now be described. As an example, a *Bluetooth* wireless technology-compatible mouse shall be connected and configured using [*Bluetooth* Settings].

[Bluetooth Settings] provides two set-up methods: "Express Mode" and "Custom Mode."

#### • Express Mode

[Bluetooth Settings] will automatically detect and register services. If several services (profiles) are supported by the device, the service that has been set to the highest priority shall be selected and registered.

Express Mode is normally recommended for device set-up.

#### • Custom Mode

After having been detected, the services supported by the device are displayed as a list, from which you can select the desired function(s).

Custom Mode must be used to set up a device if, for example, you wish to use a modem station to send a fax (because in Express Mode, the DUN profile will be automatically selected since it has a higher priority than the FAX profile).

The differences between setting up the same device (a *Bluetooth* wireless technology-compatible mouse) using Express Mode and Custom Mode are described on the following pages.

- Express Mode Set-up
- Custom Mode Set-up



The procedure for setting up the device using Express Mode shall now be described. In this case, a mouse device is used as sample device.





1. Right-click on the *Bluetooth* wireless technology icon in the task tray, and select [*Bluetooth* Settings] from the menu that appears.





○ Alternatively, click [Start] → [All Programs] → [Bluetooth] → [Bluetooth Settings].
 (Under Windows 2000, click [Start] → [Programs] → [Bluetooth] → [Bluetooth Settings].)

The [Bluetooth Settings] window will appear when other devices have already been registered.



Please click the [New Connection] button to open the [Add New Connection Wizard] window. If no devices have been registered yet, please proceed directly to "Detecting *Bluetooth* wireless technology Devices."

- 2. Switch the mouse power ON to make it connectable.

  Please refer to the mouse instruction manual for details on this procedure.
- 3. Confirm that [Express Mode] has been selected in the [Add New Connection Wizard (This wizard will create the settings for *Bluetooth* device connection.)] window, and click on the [Next] button.



Searching for devices will start.

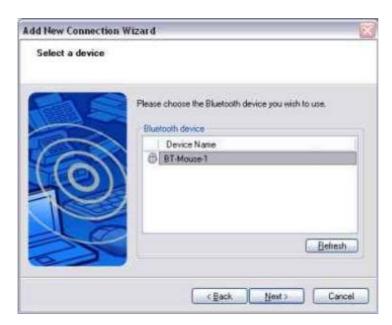


When the mouse has been detected, the name and address of the device will appear in the [Add New Connection Wizard (Select a Device)] window.



- If no device is found, please confirm that the device has been made connectable, and click on the [Refresh] button.
   A further device search will be performed.
- 4. Select the mouse device name from [Device List] and click on the [Next]

#### button.



Searching for services will start.





- If several services (profiles) are supported by the device, the service that has been set to the highest priority shall be automatically selected and set up in Express Mode.
  - Please use Custom Mode if you wish to select desired services manually.
- O When a service has been detected, a window prompting you to enter the *Bluetooth* passkey (PIN code) may appear. Please enter the passkey and click

on the [OK] button.

Please refer to your device instruction manual for information on which passkey to use.



- If you have not entered your *Bluetooth* passkey after a certain amount of time has passed, the connection process will be cancelled for security reasons.
   Please perform the passkey entry process again.
- o The Bluetooth pass key (PIN code) may or may not already be displayed, depending on your system.
- 5. Finally, the [Bluetooth Settings] window will automatically appear and the icons of the registered devices will appear and the devices will be ready to use.





• The connection icons and icon names can be changed.



# **Oustom Mode Set-up**

The procedure for setting up the device using Custom Mode shall now be described. In this case, a mouse device is used as sample device.





1. Right-click on the *Bluetooth* wireless technology icon in the task tray, and select [*Bluetooth* Settings] from the menu that appears.





Alternatively, click [Start] → [All Programs] → [Bluetooth] → [Bluetooth Settings].
 (Under Windows 2000, click |Start| → |Programs| → |Bluetooth] → [Bluetooth Settings].)

The [Bluetooth Settings] window will appear when other devices have already been registered.



Please click the [New Connection] button to open the [Add New Connection Wizard] window. If no devices have been registered yet, please proceed directly to "Detecting *Bluetooth* wireless technology Devices".

- 2. Switch the mouse power ON to make it connectable.

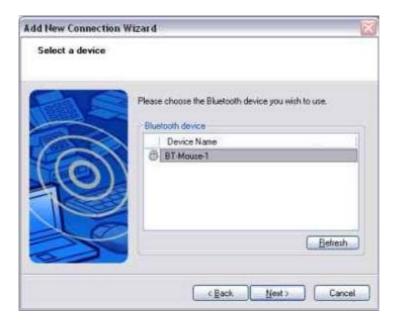
  Please refer to the mouse instruction manual for details on this procedure.
- 3. Confirm that |Custom Mode| has been selected in the |Add New Connection Wizard (This wizard will create the settings for *Bluetooth* device connection.)| window, and click on the [Next] button.



Searching for devices will start.

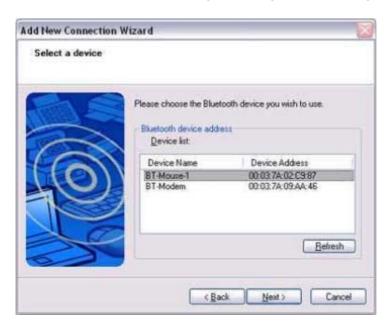


When the mouse has been detected, the name and address of the device will appear in the [Add New Connection Wizard (Select a Device)] window.





- If no device is found, please confirm that the device has been made connectable, and click on the [Refresh] button.
   A further device search will be performed.
- 4. Select the mouse device name from [Device List] and click on the [Next] button



Searching for services will start.





• When a service has been detected, a window prompting you to enter the *Bluetooth* passkey (PIN code) may appear. Please enter the passkey and click on the [OK] button.

Please refer to your device instruction manual for information on which passkey to use.



- If you have not entered your *Bluetooth* passkey after a certain amount of time has passed, the connection process will be cancelled for security reasons. Please perform the passkey entry process again.
- The Bluetooth pass key (PIN code) may or may not already be displayed, depending on your system.

The services supported by the device will be displayed.

5. Select the desired service and click on the [Next] button





When a device supports several services
 If the device supports several services, you can use Custom Mode to
 manually select the services (profiles) you wish to use from the list that
 appears under [Select Services].

If Express Mode is used to perform the set-up, the highest-priority service in the device will be automatically selected and configured.

6. Click on the [OK] button.





When the settings information has been registered, a window prompting
you to enter the *Bluetooth* passkey (PIN code) may appear. Please enter
the passkey and click on the [OK] button.

Please refer to your device instruction manual for information on which passkey to use.



- If you have not entered your *Bluetooth* passkey after a certain amount of time has passed, the connection process will be cancelled for security reasons. Please perform the passkey entry process again.
- The Bluetooth pass key (PIN code) may or may not already be displayed, depending on your system.

The [Add New Connection Wizard (Connection Name Setup)] window will appear if a service has been properly detected.

7. Select the type and name of the icon to be displayed once the device has been registered, and click on the [Next] button.





• If you wish to change the icon, please click on the [Change Icon] button and select your preferred icon from the list that appears.



8. Click on the [Finish] button



The [Bluetooth Settings] window will appear.
The icons of the registered devices will appear, and the devices will be ready to use.





O The connection icons and icon names can be changed.



## Connecting to the Internet using a modem station [DUN]

You can use a Bluetooth wireless modem to connect to the Internet via a telephone line.



- → Setting up the modem station
- → Connecting to the Internet

## **◯** Important

- In order to connect to the Internet, you must have already signed up with a provider and obtained a connection ID and password. Please ensure you have confirmed the ID, password and telephone number of your provider's access point before you begin the set-up process.
- Please refer to your instruction manual for information on connecting the modem station to a telephone line.
- A *Bluetooth* passkey (PIN code) is required for you to connect to the modem station. Please make a note of your *Bluetooth* passkey before you start the set-up process.

## Setting up the modem station



- 1. Turn on the wireless modem station
- 2. Right-click the *Bluetooth* wireless technology icon in the task tray, and then click on [Add New Connection]



 Alternatively, click [Start] → [All Programs] → [Bluetooth] → [Bluetooth Settings], and then click on [New Connection] from the active [Bluetooth Settings] window.

The [Add New Connection Wizard (Welcome to the Add New Connection Wizard)] window will appear.

3. Confirm that [Express Mode] has been selected, and then click on the [Next] button

The [Add New Connection Wizard (Searching for *Bluetooth* devices)] window will appear.

4. Select the device name of the wireless modem station from [Device List], and then click on the [Next] button.

The [Add New Connection Wizard (Searching for Services)] window will appear.

Once a service has been detected successfully, connection to the device and COM port creation will be performed automatically, after which the [Add New Connection Wizard (Modem Settings)] window will appear.

5. If you are connecting to a wireless modem station for the first time, enter the passkey for the modem station under [Bluetooth Passkey (PIN code)], and then click on the [OK] button.

Once the program has finished searching for the devices, the [Add New Connection Wizard (Advanced Modem Settings)] window will appear.

6. Click on the [Next] button

Certain modems require you to configure initialization commands separately. Please click on the [Advanced Modem Settings...] button, enter the initialization commands, and then click on the [OK] button.



- Please refer to the modem or mobile phone instruction manual for further details on the initialization commands.
- 7. Enter the connection name (optional), telephone number (of your provider's access point), user name and password (as issued by your provider), and then click on the [Finish] button.



 Please use your own telephone number, ID and password according to the arrangement with your provider.

The settings will be registered, and an icon will appear in the [Bluetooth Settings] window.

## Connecting to the Internet

You can connect to the Internet by following the procedure below if the connection destination registered when you configured the wireless modem has been set as the default connection destination.

1. Start your browser, e-mail application or other application



• Please enter the e-mail settings separately if you are going to use e-mail (the set-up method will vary with the application).

2. Enter the URL of the Web page you wish to display and then press the [Enter] key, or use the e-mail tool to send/receive items or perform other activities.

The [Dial-up Connection] window will appear.

3. Click on the [Connect] button.



 A connection will be automatically established with the modem station if COM Auto Connect is available. If COM Auto Connect is not available, please manually connect to the modem station.

Once you have connected to the Internet, a balloon message and a connection icon will appear in the task tray. The web page appears and e-mails will be sent/received.

4. End the connection

A window will appear if you double-click on the si icon in the task bar.

Please click on the [Disconnect] button when you want to disconnect from the Internet.

Alternatively, please right-click on the sicon, and then click on [Disconnect].



 You can start an application to make an automatic connection to the Internet, but you can also make a manual connection using the connection destination icon.

The procedure is described below.

 From the | Bluetooth Settings | window, right-click on the connection destination icon, and then click on [Connect] from the menu that appears.
 A window indicating that the connection is being established will appear.

If the connection has been established successfully, a balloon message and the connection icon will appear in the task tray.



You will be able to browse Web pages using your browser and send and receive e-mail.



- Please enter the e-mail settings separately if you are going to use e-mail (the set-up method will vary with the application).
- 2. End the connection

Right-click on the icon, and then click [Disconnect] to end the connection. A message will appear. Click on the [Yes] button.

When the icon appears as shown below, the connection will have ended.





# Connecting to the Internet using a mobile telephone

This section describes how to connect to the Internet via a telephone line, using a mobile telephone.



- → Configuring a mobile telephone for use as a modem
- → Connecting to the Internet

## Important

- In order to connect to the Internet, you must have already signed up with a provider and obtained a connection ID and password. Please ensure you have confirmed the ID, password and telephone number of your provider's access point before you begin the set-up process.
- A *Bluetooth* passkey (PIN code) is required for you to connect to the mobile telephone. Please make a note of your *Bluetooth* passkey before you start the set-up process.

## Configuring a mobile telephone for use as a modem



1. Turn on the mobile telephone, and set it to be connectable



O Please refer to the mobile telephone instruction manual for information on how to operate the device.

2. Right-click on the *Bluetooth* wireless technology icon in the task tray, and then click on [Add New Connection]



Alternatively, click [Start] → [All Programs] → [Bluetooth] → [Bluetooth Settings], and then click on [New Connection] from the active [Bluetooth Settings] window.

The [Add New Connection Wizard (Welcome to the Add New Connection Wizard)] window will appear.

3. Confirm that [Express Mode] has been selected, and then click on the [Next] button

The [Add New Connection Wizard (Searching for *Bluetooth* devices)] window will appear.

4. Select the device name of the mobile telephone from [Device List], and then click on the [Next] button.

The [Add New Connection Wizard (Searching for Services)] window will appear.

Once a service has been detected successfully, connection to the device and COM port creation will be performed automatically, after which the [Add New Connection Wizard (Modem Settings)] window will appear.

5. If you are connecting to a mobile telephone for the first time, enter the passkey for the wireless modem station under [Bluetooth Passkey (PIN code)], and then click on the [OK] button.

Once the program has finished searching for the devices, the [Add New Connection Wizard (Advanced Modem Settings)] window will appear.

6. Click on the [Next] button

Certain modems require you to configure initialization commands separately. Please click on the [Advanced Modem Settings...] button, enter the initialization commands, and then click on the [OK] button.



- Please refer to the modem or mobile phone instruction manual for further details on the initialization commands.
- 7. Enter the connection name (optional), telephone number (of your provider's access point), user name and password (as issued by your provider), and then click on the [Finish] button.



• Please use your own telephone number, ID and password according to the arrangement with your provider.

The settings will be registered, and an icon will appear in the [Bluetooth Settings] window.



## Connecting to the Internet

You can connect to the Internet by following the procedure below if the connection destination registered when you configured the mobile telephone has been set as the default connection destination.

#### 1. Start your browser, e-mail application or other application



- Please enter the e-mail settings separately if you are going to use e-mail (the set-up method will vary with the application).
- 2. Enter the URL of the Web page you wish to display and then press the [Enter] key, or use the e-mail tool to send/receive items or perform other activities. The [Dial-up Connection] window will appear.

#### 3. Click on the [Connect] button



 A connection will be automatically established with the mobile telephone if COM Auto Connect is available. If COM Auto Connect is not available, please manually connect to the mobile telephone.

Once you have connected to the Internet, a balloon message and a connection icon will appear in the task tray. The web page appears and e-mails will be sent/received.

#### 4. End the connection

A window will appear if you double-click on the 🗾 icon in the task bar.

Please click on the [Disconnect] button when you want to disconnect from the Internet

Alternatively, please right-click on the sicon, and then click on [Disconnect].



- You can start an application to make an automatic connection to the Internet, but you can also make a manual connection using the connection destination icon. The procedure is described below.
- 1. From the |Bluetooth Settings| window, right-click on the connection destination icon, and then click on |Connect| from the menu that appears A window indicating that the connection is being established will appear.

If the connection has been established successfully, a balloon message and the connection icon will appear in the task tray.



You will be able to browse Web pages using your browser and send and receive e-mail.



• Please enter the e-mail settings separately if you are going to use e-mail (the set-up method will vary with the application).

#### 2. End the connection

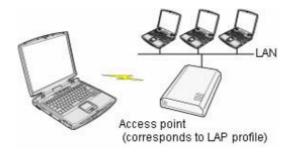
Right-click on the icon, and then click [Disconnect] to end a connection. A message will appear. Click on the [Yes] button. When the icon appears as shown below, the connection will have been ended.



# Connecting to a LAN using an access point (LAP) [LAP]

This section describes how to connect to a network (for example, a company LAN or a personal home network) using a LAP profile-compatible access point.

Please refer to "Using an access point (PAN) to connect to a LAN if you are using a PAN profile-compatible access point.



- → Setting up the access point
- → Connecting to a LAN (LAP)



- The access point must have been started and a normal connection already established to the network before the access point is set up. Please refer to the access point instruction manual for information on how to set up the access point.
- A *Bluetooth* passkey (PIN code) is required for you to connect to the access point. Please make a note of your *Bluetooth* passkey before you start the set-up process.

## Setting up the access point



- 1. Turn on the access point, and confirm that a connection has been established with the network
- 2. Right-click the *Bluetooth* wireless technology icon in the task tray, and then click on [Add New Connection]



O Alternatively, click [Start] → [All Programs] → [Bluetooth] → [Bluetooth Settings], and then click on [New Connection] from the active [Bluetooth Settings] window.

The [Add New Connection Wizard (Welcome to the Add New Connection Wizard)] window will appear.

3. Confirm that [Express Mode] has been selected, and then click on the [Next] button

The [Add New Connection Wizard (Searching for *Bluetooth* devices)] window will appear.

Once the program has finished searching for the devices, the [Add New Connection Wizard (Device Selection)] window will appear.

4. Select the device name of the access point from [Device List], and then click on the [Next] button

The [Add New Connection Wizard (Searching for Services)] window will appear.

You will be asked for the *Bluetooth* passkey in the window that appears.

5. Enter the passkey under [Bluetooth Passkey (PIN code)], and then click on the [OK] button

Service detection and COM port creation will be performed automatically. The [Add New Connection Wizard (Create Connection Destination)] window will appear.

6. Enter the connection name, user name and password, then click on the [Next] button



 The user name and password are entered here to allow you to connect to the access point.

The [Add New Connection Wizard (Confirm Dial-up Settings)] window will appear.

#### 7. Click on the [Confirm Settings] button

The [Internet Options] window will appear.

#### 8. Configure the connection method, and then click on the [OK] button

Set the connection destination used for the LAN connection set up in (6) above as the default connection destination, and then select "Always dial my default connection."

#### 9. Click on the [Next] button

The access point icon will be registered in the [Bluetooth Settings] window.



This will complete the access point set-up process.

→ "Connecting to a LAN (LAP)"





1. Right-click on the connection icon in the [Bluetooth Settings] window, and then click on [Connect]

The [Dial-up Connection] window will appear.

2. Confirm that "Direct connection" has been selected under [Connection Destination], and then click on the [Connect] button

A connection will be initiated.



- This is an example of what happens when you use "Direct connection" as a connection name under "Connect to access point." If a name different from the connection name is used, that name will appear under [Connection Destination].
- Please simply click on [Settings] if no user name or password have been entered (i.e., if those fields have been left blank)
- Please change the connection destination if a different connection name (for a dial-up connection) appears in [Connection Destination].

Once you connect to the network, Internet Explorer will start automatically, and you will be able to exchange data with other computers on the network.



- Please follow the procedure below if you need to set up a proxy server to connect to the Internet (the following procedure is not necessary if the PC you are going to use has already been set up as a proxy server).
  - 1 Select [Internet Options...] from the [Tools] menu in Internet Explorer

The [Internet Options] window will appear.

- 2 Click on the [Connections] tab, and then click on the [Settings...] button
- 3 Enter the IP address and port number of the proxy server under [Proxy Server], and then click on the [OK] button

#### 3. End the connection

Right-click either on the connection icon under the [Bluetooth Settings] window or on the licon in the task tray, and then click on [Disconnect].

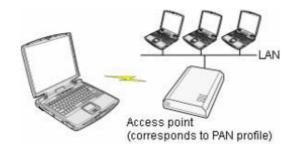
Click on the "Yes" button in the disconnection confirmation dialog box that appears.



## Connecting to a LAN using an access point (PAN) [PAN]

This section describes how to connect to a network (for example, a company LAN or a personal home network) using a PAN profile-compatible access point.

Please refer to "Using an access point (LAP) to connect to a LAN" if you are using a LAP profile-compatible access point.



- → Setting up the access point
- → Connecting to a LAN (PAN)

## Important

- The access point must be started and a normal connection already established to the network before the access point is set up. Please refer to the access point instruction manual for information on how to set up the access point.
- A *Bluetooth* passkey (PIN code) is required for you to connect to the access point. Please make a note of your *Bluetooth* passkey before you start the set-up process.

## Setting up the access point



- 1. Turn on the access point, and confirm that a connection has been established with the network
- 2. Right-click the *Bluetooth* wireless technology icon in the task tray, and then click on [Add New Connection]



 Alternatively, click [Start] → [All Programs] → [Bluetooth] → [Bluetooth Settings], and then click on [New Connection] from the active [Bluetooth Settings] window.

The [Add New Connection Wizard (Welcome to the Add New Connection Wizard)] window will appear.

3. Confirm that [Express Mode] has been selected, and then click on the [Next] button

The [Add New Connection Wizard (Searching for *Bluetooth* devices)] window will appear.

Once the program has finished searching for the devices, the [Add New Connection Wizard (Device Selection)] window will appear.

4. Select the device name of the access point from [Device List], and then click on the [Next] button

The [Add New Connection Wizard (Searching for Services)] window will appear.

You will be asked for the *Bluetooth* passkey in the window that appears.

5. Enter the passkey under [Bluetooth Passkey (PIN code)], and then click on the [OK] button

Service detection will be performed automatically.

The access point icon will be registered in the [Bluetooth Settings] window.



This will complete the access point set-up process.

→ "Connecting to a LAN (PAN)"





1. Right-click on the connection icon in the [Bluetooth Settings] window, and then click on [Connect]

You will be asked for the *Bluetooth* passkey in the window that appears.

2. Enter the passkey under [Bluetooth Passkey (PIN code)], and then click on the [OK] button

A connection will be initiated.

Once you have connected to the network, Internet Explorer will start automatically, and you will be able to exchange data with other computers on the network.



- · · · ·

O Please follow the procedure below if you need to set up a proxy server to

connect to the Internet (the following procedure is not necessary if the PC you are going to use has already been set up as a proxy server).

1 Select [Internet Options...] from the [Tools] menu in Internet Explorer

The [Internet Options] window will appear.

- 2 Click on the [Connections] tab, and then click on the [LAN Settings...] button
- 3 Enter the IP address and port number of the proxy server under [Proxy Server], and then click on the [OK] button

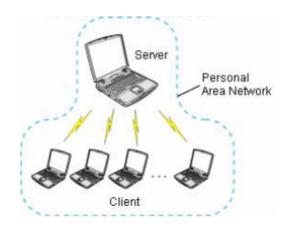
#### 3. End the connection

Right-click either on the connection icon under the [Bluetooth Settings] window or on the licon in the task tray, and then click on [Disconnect].

Click on the "Yes" button in the disconnection confirmation dialog box that appears.

# Building a personal area network [PAN]

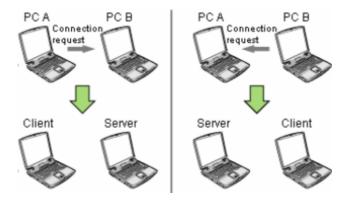
You can use the PAN profile to build a network of *Bluetooth* wireless technology-enabled devices.



- → Operating as a server
- → Operating as a client

A personal area network comprises a client-server architecture. The device to which other devices connect is called the "server", and a device that connects to the server is called a "client."

The client-server relationship is not necessarily a fixed one. The first of two devices to establish a connection can be the server when one other device is present, and can be the client in other instances.





• The maximum total number of devices that can be used to constitute a single personal area network is seven: one server and six clients.

A network comprising as many as seven devices could theoretically be built, but an operating environment that involves the use of other *Bluetooth* wireless technology devices, leaving aside other complications, might require the network to comprise fewer components..

By using the PAN profile, you will be able to build a network that uses the same TCP/IP protocol used in regular LANs. Accordingly, the machine designated as the server can be used for configuration tasks that utilize DHCP, such as assigning IP addresses to clients.

In addition, you will be able to configure folder and file sharing, which will allow data to be browsed by other servers or clients on the network.





## **◯** Important

 Please refer to Windows Help for further information on TCP/IP, DHCP and configurations for sharing.

## Operating as a server

The following icon will appear in the tasktray when the PAN server function has been activated.



Should the icon not appear, please follow the procedure below to activate the PAN server function.

- 1. Right-click the *Bluetooth* wireless technology icon in the task tray, click on [Option] and make sure the "PAN Networking Service" is checked in [Enable Services] under [General] tab.
  - A message will appear asking you to confirm whether you wish to activate the PAN group ad-hoc network.
- 2. Click the [Yes] button
  The PAN server will be activated, and an icon will accordingly appear in the tasktray. Other devices that use the PAN profile will now be able to connect over the network.

## Important

- When using the device as the server, make sure that all user accounts have a
  password set for the security reasons.
- The IP address of the server is automatically set up when it starts. Please do not change this IP address.
- When the device starts as the server, it starts the DHCP server function. We recommend that you should use the IP addresses provided from this DHCP server for the clients connected. Please do not change these IP addresses.

By clicking on the icon, the [Bluetooth PAN Server] window will appear. One client has established a connection below.



- When you try to connect to another server as a client, the task tray icon will disappear, and your machine will not be able to function as a server in response to connection requests originating from other devices.
- During server starting, it is not possible to stop the DHCP server.

### Operating as a client

Connecting to a server as a client is performed from the [Bluetooth Settings] window, as described below.



1. Right-click on the *Bluetooth* wireless technology icon in the task tray, and click on [Add New Connection]



- Alternatively, click on [Start] → [All Programs] → [Bluetooth] →
   [Bluetooth Settings], and then on [New Connection] from the [Bluetooth Settings] window.
- 2. Confirm that [Express Mode] has been selected, and then click on the [Next] button
- 3. Click on the [Next] button in the advisory dialog box
  The [Add New Connection Wizard (Searching for *Bluetooth* devices)] window will appear.

Once the program has finished searching for the devices, the [Add New Connection Wizard (Device Selection)] window will appear.

4. Select the name of the device designated as the server from [Device List], and then click on the [Next] button

The registered icon will appear in the [Bluetooth Settings] window.



**■**Connecting to a server



1. Right-click on the icon in the [Bluetooth Settings] window, and then click on [Connect]

Once you have connected, the icon will change to indicate that the device is connected.





### **■**Ending a connection to a server



1. Right-click on the icon in the [Bluetooth Settings] window, and then click on [Disconnect]

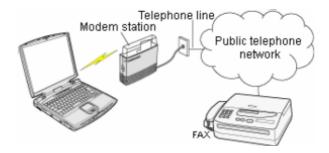
A message confirming whether you wish to disconnect will appear. Click on the [Yes] button.

Once you have disconnected, the icon will change to indicate that the device is not connected.



## Using a modem station for fax transmissions [FAX]

This section describes how to send a fax using a Bluetooth wireless modem station.



- → Setting up the modem station
- → Setting fax information
- → Sandina a fav

- → Sending a fax → Receiving a fax
- **◯** Important

- Please refer to the modem station instruction manual for information on how to connect the station to a telephone line.
- Please ensure that any drivers used to connect the PC to the modem have been installed.
- A *Bluetooth* passkey (PIN code) is required for you to connect to the modem station. Please make a note of your *Bluetooth* passkey before you start the set-up process.
- A fax application is required for you to be able to send and receive faxes. The description below is based on a example using Microsoft Fax, which is installed with Windows XP as standard.

If you are going to use a commercially available fax application, then please refer to the manual that came with the application for information on how to send and receive faxes.

### Setting up the modem station

Set up and register the modem station as a fax service.



- 1. Turn on the wireless modem station
- 2. Right-click on the *Bluetooth* wireless technology icon in the task tray, and then click on [Add New Connection]



○ Alternatively, click [Start] → [All Programs] → [Bluetooth] → [Bluetooth Settings], and then click on [New Connection] from the active [Bluetooth Settings] window.

The [Add New Connection Wizard (Welcome to the Add New Connection Wizard)] window will appear.

3. Select [Custom Mode], and then click on the [Next] button

The [Add New Connection Wizard (Searching for *Bluetooth* devices)] window will appear.

Once the program has finished searching for the devices, the [Add New Connection Wizard (Select Device)] window will appear.

4. Select the device name of the wireless modem station from [Device List], and

4. Select the device name of the wireless modem station from [Device List], and then click on the [Next] button

The [Add New Connection Wizard (Searching for Services)] window will appear.

5. If you are connecting to the wireless modem station for the first time, enter the passkey for the device from the [Bluetooth Passkey (PIN Code)] window, and then click on the [OK] button

Once the program has finished searching for the services, the [Add New Connection Wizard (Select Service)] window will appear.

6. Select "Fax" under [Select Service], and then click on the [Next] button

The COM port and modem registration process dependent on your *Bluetooth* software conditions.

6.1 Case 1: COM port and modem registration process will be automatically performed

The COM port and modem registration process will then be automatically performed.

Once the COM port and modem (standard 33600 bps type) registration is complete, the [Add New Connection Wizard (Setting Connection Name)] screen will appear.

6.2 Case 2: COM port and modem registration process will be manually performed

The COM port and modem registration process will then be manually performed using the original modem .inf file.

Once the COM port and modem registration is completed by following the wizard process, the [Add New Connection Wizard (Setting Connection Name)] screen will appear.

7. Configure the type and name of the icon to appear after registration, and click on the [Next] button.

Please click only on the [Next] button once you are satisfied with the configuration.

The [Add New Connection Wizard (Completing the Add New Connection Wizard)] screen will appear.

8. Click on the [Finish] button

8. Click on the [Finish] button

The settings will be registered, and the icon will appear on the [Bluetooth Settings] screen.



### Setting FAX information

Configure send/receive settings and register fax information.



1. Select |Start|→|Control Panel], and then click the |Printer| icon under |Hardware and Sound|



- o If the Control Panel is displayed in Classic View, skip to Step 2.
- 2. Double-click on the [Fax] icon

The [Windows Fax and Scan] screen will appear.

3. Click on [New fax] from the Toolbar

The [Fax Setup Wizard] will appear.



- If a fax modem connection has already been established, the [New Fax] screen will appear instead of the [Fax Setup Wizard].
- 4. Select [Connect to a fax modem] from the |choose a fax modem or server| screen, and proceed to the next screen
- 5. Enter a name in the [Choose a modem name] screen to identify the modem used for sending faxes
- 6. Click |Next| once you have entered a name for the modem
- 7. Before you will be able to receive faxes, you will need to select a method from

the [Choose how to receive faxes] screen to use for answering incoming calls.

The [New Fax] screen will appear.



O If you select [Answer automatically (recommended)] or [Notify me], a continuous connection with the wireless modem will be established (if Automatic COM connectionhas been enabled) so the fax software will stand by to receive transmissions even if no incoming or outgoing transmissions are in progress. Select the option that best suits your desired purpose and frequency.

#### 8. Enter sender information

Select [Sender information] from [Tools] under the Menu bar, and enter the information to be shown on the cover sheet.



• The sender information you enter here will be automatically added as header information when you send a fax.



1. Select  $|Start| \rightarrow |Control Panel|$ , and then double-click on the |Printers and Other Hardware |Control Panel| icon



- If the control panel is displayed in "Classic view", and you use Windows 2000, please start from Step (2).
- 2. Double-click on the [Printers and Faxes] icon

The [Printers & Faxes] window will appear.

3. Click on "Install a local fax printer" in the [Printers and Faxes] window

A window showing installed programs will appear, and a Fax icon will have been created in the [Printers and Faxes] screen.



4. Click on "Send a fax" under "Printer Tasks" on the left side of the window

If you have not yet configured a fax device, the [Fax Configuration Wizard] window will appear. In the window you can enter settings pertaining to the sender (yourself).



- If the fax configuration information has already been registered, the [Send Fax Wizard] window, which can be viewed under "Sending a fax" below, will appear instead of the [Fax Configuration Wizard] window.
- 5. Enter the sender information, and click on the [Next] button



• The sender information that you configure here will be automatically appended as header information when you send a fax.

The [Fax Configuration Wizard (Select Device for Sending or Receiving Faxes)] window will appear.

6. Select a device to be used for fax transmissions, enable the device for sending or receiving, and then click on the [Next] button



 If [Enable Receive] is selected, the device will be on standby for receiving faxes even if it is not sending or receiving anything, and therefore will be in continuous connection to the wireless modem (when COM Auto Connect is on).

Please decide whether to select this option based on the desired objective and/or frequency of transmission.

The [Fax Configuration Wizard (Transmitting Subscriber Identification (TSID))] window will appear.

7. Click on the [Next] button

It is important that you do not change the transmitter subscriber identification.

The [Fax Configuration Wizard (Completing the Fax Configuration Wizard)] window will appear.

8. Click on the [Finish] button

The fax information will be have been registered, and the [Fax Console]

The fax information will be have been registered, and the [Fax Console] window will appear.

This will complete the fax set-up process.

Related topics: "Sending a fax" and "Receiving a fax"



This section describes how to send a fax from the Fax Console.

### Important

• The Fax service must be enabled for sending in order for you to send a fax. Please refer to "Using a wireless modem station" under "Troubleshooting" for how to change the send and receive settings once the service has been configured.

## Procedure

- 1. Click the [Hardware and Sound] icon from the Control Panel
- 2. Click [Send a fax] under [Printers]

The [Windows Fax and Scan] screen will appear.

- 3. The Create Fax dialog box will appear
- 4. Enter the name and fax number of the recipient
- Enter the cover sheet template, message subject, and text (body of the message)
- 6. Click on the Send icon

The number will be dialled automatically, and the fax will be transmitted.

Once the fax has been sent, the Fax Monitor will revert to standby mode.



1. Double-click on the [Fax] icon in the Control Panel

The [Fax Console] window will appear.

2. In the [Fax Console] window, click [File] → [Send fax]

The [Send Fax Wizard (Starting the Send Fax Wizard)] window will appear.

3. Click on the [Next] button

The [Send Fax Wizard (Recipient Information)] window will appear.

4. Enter the name and fax number of the destination party, and then click on the [Next] button

The [Send Fax Wizard (Preparing the Cover Page)] window will appear.

5. Specify the cover page template, subject line, and note (body text), and then click on the [Next] button

The [Send Fax Wizard (Schedule)] window will appear.

6. If you wish to send the fax immediately, select "Now", and then click on the [Next] button

The [Send Fax Wizard (Completing the Send Fax Wizard)] window will appear.

7. Confirm the destination information and transmission details, and then click on the [Finish] button

The software will automatically dial the number and send the fax.

Once the fax has been sent, Fax Monitor will revert to standby mode.

Related topic: "Receiving a fax"

## Receiving a fax

This section describes what to do when a fax arrives after you have established a connection to a modem station.

connection to a modem station.



• The Fax service must be enabled for receiving in order for you to receive a fax.

Please refer to "Using a wireless modem station" under "Troubleshooting" for information on how to change the send and receive settings once the fax service has been configured.

• Please ensure you have connected to a modem station before you receive a fax (the device will be connected to the modem if "Enable Receive" has been selected or COM Auto Connect has been activated).



1. When an incoming fax is detected, the Fax Monitor will open automatically and receive the fax

The Fax Monitor will return to standby mode once a fax has been received.



O If you have opted to receive faxes manually, a message will appear in the tasktray when an incoming fax is detected.

Click on the message to start receiving the fax.

2. Start Windows Fax and Scan Faxes that have been received in the Inbox will be displayed as a list, allowing you to view them in the Preview Window.



### Procedure (Windows XP and Windows 2000)

1. When a fax arrives, the Fax Monitor will start automatically as the fax is received

Once the fax has been received, the Fax Monitor will revert to standby mode.



o If you have enabled manual fax reception, a message will appear in the task tray.

Click on the message with your mouse to receive the fax.

2. Double-click on the [Fax] icon in the Control Panel

The [Fax Console] window will appear.

### 3. In the [Fax Console] window, double-click on the fax that has arrived

An image of the received fax will be displayed.

Related topic: "Sending a fax"



### Using a mobile telephone for fax transmissions [FAX]

This section describes how to send a fax using a mobile telephone as a modem.



- → Setting up the mobile telephone
- → Setting fax information
- → Sending a fax
- $\rightarrow$  Receiving a fax

## **◯**Important

- Please ensure that any drivers used to connect the PC to the mobile telephone have been installed.
- A *Bluetooth* passkey (PIN code) is required for you to connect to the mobile telephone. Please make a note of your *Bluetooth* passkey before you start the set-up process.
- A fax application is required for you to be able to send and receive faxes. The description below is based on a example using Microsoft Fax, which is installed with Windows XP as standard.

If you are going to use a commercially available fax application, then please refer to the manual that came with the application for information on how to send and receive faxes.

## Setting up the mobile telephone

Set up and register the mobile telephone as a fax service.



1. Turn on the mobile telephone, and set it to be connectable



- Please refer to the instruction manual for information on how to operate the telephone.
- 2. Right-click on the *Bluetooth* wireless technology icon in the task tray, and then click on [Add New Connection]



○ Alternatively, click [Start] → [All Programs] → [Bluetooth] → [Bluetooth Settings], and then click on [New Connection] from the active [Bluetooth Settings] window.

The [Add New Connection Wizard (Welcome to the Add New Connection Wizard)] window will appear.

3. Select [Custom Mode], and then click on the [Next] button

The [Add New Connection Wizard (Searching for *Bluetooth* devices)] window will appear.

Once the program has finished searching for the devices, the [Add New Connection Wizard (Select Device)] window will appear.

Select the device name of the mobile telephone from [Device List], and then click on the [Next] button

The [Add New Connection Wizard (Searching for Services)] window will appear.

5. If you are connecting to the mobile telephone for the first time, enter the passkey for the device from the [Bluetooth Passkey (PIN Code)] window, and then click on the [OK] button.

Once the program has finished searching for the services, the [Add New Connection Wizard (Select Service)] window will appear.

6. Select "Fax" under [Select Service], and then click on the [Next] button

The COM port and modem registration process dependent on your *Bluetooth* software conditions.

6.1 Case 1: COM port and modem registration process will be automatically

0.1 Case 1. COM port and modelli registration process will be automatically performed

The COM port and modem registration process will then be automatically performed.

Once the COM port and modem (standard 33600 bps type) registration is complete, the [Add New Connection Wizard (Setting Connection Name)] screen will appear.

## 6.2 Case 2: COM port and modem registration process will be manually performed

The COM port and modem registration process will then be manually performed using the original modem .inf file.

Once the COM port and modem registration is completed by following the wizard process, the [Add New Connection Wizard (Setting Connection Name)] screen will appear.

## 7. Configure the type and name of the icon to appear after registration, and click on the [Next] button.

Please click only on the [Next] button once you are satisfied with the configuration.

The [Add New Connection Wizard (Completing the Add New Connection Wizard)] screen will appear.

### 8. Click on the [Finish] button

The settings will be registered, and the icon will appear on the [Bluetooth Settings] screen.



## 🦲 Setting fax information

Configure send/receive settings and register fax information.



1. Select |Start|→|Control Panel|, and click the |Printers| icon under |Hardware and Sound|





o If the Control Panel is shown in Classic View, skip to Step 2.

### 2. Double-click on the [Fax] icon

The [Windows Fax and Scan] screen will appear

3. Click on [New Fax] from the Toolbar

The [Fax Setup Wizard] will appear.



- o If a fax modem connection has already been established, the [New Fax] screen will appear instead of the [Fax Setup Wizard].
- 4. Select [Connect to a fax modem] from the [Choose a fax modem or server] screen, and proceed to the next screen
- 5. Enter a name in the [Choose a modem name] screen to identify the modem used for sending faxes
- 6. Click |Next| once you have entered a name for the modem
- 7. Before you will be able to receive faxes, you will need to select a method from the [Choose how to receive faxes] screen to use for answering incoming calls.

The [New Fax] screen will appear.



O If you select [Answer automatically (recommended] or [Notify me], a continuous connection with the wireless modem will be established (if Automatic COM connection has been enabled) so the fax software will stand by to receive transmissions even if no incoming or outgoing transmissions are in progress.

Select the option that best suits your desired purpose and frequency

### 8. Enter sender information

Select [Sender information] from [Tools] under the Menu bar, and enter the information to be shown on the cover sheet.



• The sender information you enter here will be automatically added as header information when you send a fax.



## 1. Select $|Start| \rightarrow |Control Panel|$ , and then double-click on the |Printers and Other Hardware |Control Panel|



o If the control panel is displayed in "Classic view", and you use Windows 2000, please start from Step (2).

### 2. Double-click on the [Printers and Faxes] icon

The [Printers & Faxes] window will appear.

### 3. Click on "Set up faxing" in the [Printers and Faxes] window

A window showing installed programs will appear, and a Fax icon will have been created in the [Printers and Faxes] screen.



### 4. Click on "Send a fax" under "Printer Tasks" on the left side of the window

If you have not yet configured a fax device, the [Fax Configuration Wizard] window will appear. In the window you can enter settings pertaining to the sender (yourself).



O If the fax configuration information has already been registered, the [Send Fax Wizard] window, which can be viewed under "Sending a fax" below, will appear instead of the [Fax Configuration Wizard] window.

### 5. Enter the sender information, and click on the [Next] button



 The sender information that you configure here will be automatically appended as header information when you send a fax.

The [Fax Configuration Wizard (Select Device for Sending or Receiving Faxes)] window will appear.

#### 6. Select a device to be used for fax transmissions, enable the device for sending

6. Select a device to be used for fax transmissions, enable the device for sending or receiving, and then click on the [Next] button



 If [Enable Receive] is selected, the device will be on standby for receiving faxes even if it is not sending or receiving anything, and therefore will be in continuous connection to the wireless modem (when COM Auto Connect is on).

Please decide whether to select this option based on to the desired objective and/or frequency of transmission.

The [Fax Configuration Wizard (Transmitting Subscriber Identification (TSID))] window will appear.

### 7. Click on the [Next] button

It is important that you do not change the transmitter subscriber identification.

The [Fax Configuration Wizard (Completing the Fax Configuration Wizard)] window will appear.

### 8. Click on the [Finish] button

The fax information will be have been registered, and the [Fax Console] window will appear.

This will complete the fax set-up process.

Related topics: "Sending a fax" and "Receiving a fax"



This section describes how to send a fax from the Fax Console.



• The Fax service must be enabled for sending in order for you to send a fax. Please refer to "Using a mobile telephone" under "Troubleshooting" for how to

Please refer to "Using a mobile telephone" under "Troubleshooting" for how to change the send and receive settings once the service has been configured.""



1. Double-click on the [Fax] icon in the Control Panel

The [Fax Console] window will appear.

- 2. In the [Fax Console] window, click [File] → [Send fax]
  The [Send Fax Wizard (Starting the Send Fax Wizard)] window will appear.
- 3. Click on the [Next] button
  The [Send Fax Wizard (Recipient Information)] window will appear.
- 4. Enter the name and fax number of the destination party, and then click on the [Next] button

The [Send Fax Wizard (Preparing the Cover Page)] window will appear.

5. Specify the cover page template, subject line, and note (body text), and then click on the [Next] button

The [Send Fax Wizard (Schedule)] window will appear.

6. If you wish to send the fax immediately, select "Now", and then click on the [Next] button

The [Send Fax Wizard (Completing the Send Fax Wizard)] window will appear.

7. Confirm the destination information and transmission details, and then click on the [Finish] button

The software will automatically dial the number and send the fax. Once the fax has been sent, Fax Monitor will revert to standby mode.

Related topic: "Receiving a fax"



This section describes what to do when a fax arrives after you have established a connection to a modem station.



• The Fax service must be enabled for receiving in order for you to receive a fax. Please refer to "Using a mobile telephone" under "Troubleshooting" for information

Please refer to "Using a mobile telephone" under "Troubleshooting" for information on how to change the send and receive settings once the fax service has been configured.

Please ensure you have connected to a modem station before you receive a fax (the
device will be connected to the modem if "Enable Receive" has been selected or
COM Auto Connect has been activated).



1. When a fax arrives, the Fax Monitor will start automatically as the fax is received

Once the fax has been received, the Fax Monitor will revert to standby mode.



- If you have enabled manual fax reception, a message will appear when a fax arrives.
  - Click on the message with your mouse to receive the fax.
- 2. Double-click on the [Fax] icon in the Control Panel The [Fax Console] window will appear.
- 3. In the [Fax Console] window, double-click on the fax that has arrived An image of the received fax will be displayed.

Related topic: "Sending a fax"



This section describes how to use a *Bluetooth* wireless technology-compatible printer for printing.



When printing using *Bluetooth* wireless technology, the methods for configuring and using the printer will vary with the corresponding profile.

Profile	Bluetooth Settings	Operation
HCRP (*1)	You must register the printer in Bluetooth Settings	Allows you to print from various applications, as with ordinary cable-connected printers.  → "Printing document and images"
SPP		

OPP (*2)	Not required	Allows you to print business card data directly.  → "Printing business card data"
BIP	Not required	Allows you to print image data directly.  → "Printing images directly from a digital camera or other device"



- (\*1) The majority of *Bluetooth* wireless technology-compatible printers support HCRP.
  - If you have selected Express Mode, HCRP will be chosen as the default profile. If the printer does not support HCRP, then SPP will be the next choice.
- (\*2) The printing of business cards using OPP complies exclusively with the business card (vCARD) standard.



### Printing documents and images [HCRP] [SPP]

This section describes how to print using a *Bluetooth* wireless technology-compatible printer.



- → Setting up the printer
- $\rightarrow$  Printing

### **Important**

- Please ensure that any printer-specific drivers have been installed on the PC before you have established a *Bluetooth* wireless technology connection.
- A *Bluetooth* passkey (PIN code) is required for you to connect to the printer. Please make a note of your *Bluetooth* passkey before you start the set-up process.

## Setting up the printer



- 1. Turn on the printer
- 2. Right-click on the *Bluetooth* wireless technology icon in the task tray, and then click on [Add New Connection]



Alternatively, click [Start] → [All Programs] → [Bluetooth] → [Bluetooth Settings], and then click on [New Connection] from the active [Bluetooth Settings] window.

The [Add New Connection Wizard (Welcome to the Add New Connection Wizard)] window will appear.

3. Confirm that [Express Mode] has been selected, and then click on the [Next] button

The [Add New Connection Wizard (Searching for *Bluetooth* devices)] window will appear.

Once the program has finished searching for the devices, the [Add New Connection Wizard (Device Selection)] window will appear.

4. Select the device name of the printer from [Device List], and then click on the [Next] button

The [Add New Connection Wizard (Searching for Services)] window will appear.

5. If you are connecting to the printer for the first time, enter the passkey for the device from the [Bluetooth Passkey (PIN Code)] window, and then click on the |OK| button.

Once the services have been detected successfully, connection to the device and creation of the HCRP port will be performed automatically.

creation of the HCRP port will be performed automatically.

If you have not yet installed a printer, a message prompting you to install a printer will appear.

### 6. Click on the [OK] button

The [Add Printer Wizard (Starting the Add Printer Wizard)] window will

appear.

#### 7. Click on the [Next] button

The [Add Printer Wizard (Local Printer or Network Printer)] window will appear.

8. Select "Local printer attached to this computer", remove the check next to "Automatically detect and install my Plug and Play printer", and then click on the [Next] button

The [Add Printer Wizard (Select Printer Port)] window will appear.

9. Select the desired port, and then click on the [Next] button

The [Add Printer Wizard (Install Printer Software)] window will appear.

10. Select the [Manufacturer] and [Printer] as pertains to the printer to be installed, or click on the [Use Device] button, and then click on the [Next] button

Please install the printer according to the instructions in the windows that follow.

Once installation is complete, a message of confirmation will appear in the [Add New Connection Wizard (Printer Settings)] window.

#### 11. Click on [Next]

The registered icon will appear in the [Bluetooth Settings] window.



- You can change the connection icon and icon name.
  - → "Changing the connection icon name"
  - → "Changing the connection icon"

## Printing

Try to print from the message pad.

1. Click [File]  $\rightarrow$  [Print] The [Print] screen will appear. 2. Select wireless printer from under [Select Printer], and then click on the [Print] button

Printing will commence.



• If you have connected to a printer using HCRP or SPP profiles, all future *Bluetooth* wireless technology connections to that printer will be established automatically once you have printed a document from your PC.

# Printing images directly from a digital camera or other device [BIP]

If you have a printer that supports BIP (Basic Imaging Profile), you can send images directly to a printer to be printed out, without having to perform any special set-up procedure.



- → Printing image files on a printer (using icons)
- → Printing image files on a printer (by right-clicking the mouse)



• Below is a list of file types (extensions) of images that can be printed out directly.

Bitmap (\*.bmp)

- o Bitmap (\*.bmp)
- o JPEG (\*.jpg; \*.jpeg)
- o PNG (\*.png)



■Printing image files on a printer (using icons)

- 1. Turn on the printer
- 2. Open Bluetooth Information Exchanger



• Please refer to Contents of the *Bluetooth* Utility on how to open *Bluetooth* Information Exchanger

### 3. Double-click on the [Image Transfer] icon

A list of devices will appear in the [Image Transfer] window.



- o If your desired printer does not appear in the list, please confirm that the printer has been turned on, and then click on [Bluetooth] → [Search Devices] A device search will be performed.
- 4. Drag and drop the file to be sent on top of the icon of the destination printer

The file will be sent to the printer.

If the file has been sent to the printer successfully, a message will appear, and the image will be printed out. Please click on the [OK] button.

A message will appear if the file transmission was unsuccessful. Please click on the [OK] button to close the message, and repeat the printing procedure.



o If the printer does not support the BIP profile, a message will appear.

■Printing image files to a printer (by right-clicking the mouse)

- 1. Turn on the printer
- 2. Right-click on the file to be sent, and then click on the destination printer

## 2. Right-click on the file to be sent, and then click on the destination printer under [to *Bluetooth*]



If your desired device does not appear in the list, please confirm that the
device has been turned on, and then click on [to Bluetooth] → [Search Other
Devices]

Once the device has been detected, select the destination device and click on the [Send] button.

A window indicating that the file is being sent to the printer will appear. If the file has been sent to the printer successfully, a message will appear, and the image will be printed out. Please click on the [OK] button.

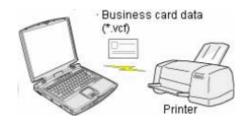
A message will appear if the file transmission was unsuccessful. Please click on the [OK] button to close the message, and repeat the printing procedure.



O If the printer does not support the BIP profile, a message will appear.

## Printing business card data [OPP]

If you have a printer that supports OPP (Object Push Profile), you can directly send business card data that conforms to the "vCard" standard to a printer and print it out.



→ Printing business card data (using icons)