Bluetooth Stereo Headset & TX/HCI Dual Mode Dongle

User Manual

Version 2.2

TOONG IN ELECTRONIC CORP.

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

IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

FCC Information

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

The equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. However, there is no grantee that interference will not occur in a particular installation. If this equipment dose cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

The user should not modify or change this equipment without written approval form TOONG IN ELECTRONIC CORP. Modification could void authority to use this equipment.

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Bluetooth Introduction

Bluetooth is a global wireless standard for enabling short-range wireless connections. It is a simple and instant radio solution that allows different devices to talk to one another. Bluetooth eliminates the need for cables/wires/cords between devices such as mobile phones and headphones. Bluetooth facilitates fast and secure transmissions of both voice and data between devices even if they are not in line-of-sight. Most Bluetooth devices are described as 'Class 2'. These are very low power and have a range of about 10 meters. Some devices are Class 1. These have range comparable to that of Wi-Fi and have a range up to 100 meters.

A limited, but growing number of devices use Bluetooth at present. Devices that are starting to have Bluetooth connectivity built in include:

- Headsets
- Headphone
- Cell Phones
- PDAs
- Laptops
- Digital cameras and camcorders
- Printers
- Scanners
- Keyboards and Mice
- In-car hands-free kits
- GPS navigation receivers
- Home appliances (microwaves, washers, driers, refrigerators)

In addition, add on Bluetooth adapters are available for computers (i.e. with a USB interface) and for PDAs.

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Package List

The following checked items should be in the package.

Items	Quantity
☒ Headset (HS)	1
☒ USB Charging Cable	1
☒ TX / HCI Dual Mode Dongle	1
☒ CD with Software	1

Bluetooth Stereo Headset Kit

Thank you for choosing Bluetooth Stereo Headset Kit. It is unique and different from most Bluetooth products in the market for its good integration of Advanced Audio Distribution Profile (A2DP), Headset and Hands-Free Profiles. It is a multifunctional device that provides users with dual capability for listening to music in a wireless mode as well as answering the cell phone. While the phone rings, the conversation can be transferred back and forth between the headset and the Bluetooth enabled cell phone, even when the music is being streamed.

The music source for this headset can be any consumer device such as a Portable MP3 Player, a Mobile Phone, a PC, a Music System, or an In-car Entertainment System that is compliant with the Bluetooth specification version 1.1 or 1.2 and is supporting the Advanced Audio Distribution Profile (A2DP).

The headset can also be used with cell phones that are compliant with the Bluetooth specification version 1.1 or 1.2 and it is supporting either the Headset (HS) or Hands-Free (HF) profiles.

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Stereo Headset Features

- Superior audio quality - Delivers 44.1 kHz and 48 kHz, 16 bit stereo music (near CD quality audio).
- Accept / end phone calls – Accept / end phone calls with button on the headset.
- Listen to music and respond to phone calls – Enable switching between music and calls made to your Bluetooth enabled cell phone.
- Wireless mobility – It is very convenient without being restricted by cables.
- No “Line-of-sight” restriction - Unlike infrared devices, it offers you a wide transmission range (up to 10 meters).
- Long battery life – The self-contained battery of can be easily charged with a USB cable and long battery life ensures hassle free music experience.
- Supported profiles - Supports A2DP, AVRCP Headset and Hands-Free profiles of the Bluetooth specification, version 1.1.
- Good compatibility with Bluetooth transmitter (TX) / HCI Dual Mode Dongle

TX /HCI Dual Mode Dongle Features

- Act as a TX Dongle
  - Auto Pairing – Search any Bluetooth receivers automatically and show the link status on the status LED indicator.
  - Easy to link with the music source – Plug an audio cable in TX and connect the other side of the cable to audio source.

- Act as a HCI Dongle
  - After install the IVT BlueSoleil software, it can provide various wireless network applications such as audio transfer, file transfer, network access, dial-up networking, and so on.
  - After installation, you can use the Bluetooth stereo headset to listen to the music or use the headset to access the Internet Telephony service.

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Bluetooth Stereo Headset Kit Outline

Bluetooth Stereo Headset is shown in figure 1 and figure 2 below with dimensions specified. Functions and dimensions for TX are listed in figure 3.

Figure 1 – Stereo headset

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Status	Function Key Action	LED Indicator
Power on	Long press the key for 3 seconds	Red LED is on and then turns to Blue LED
Power off	Long press the key again for 3 seconds	Blue LED turns off
Connect with TX / cell phone	Use TX / cell phone to search HS	Blue LED flashes
Answer a call	Press the key for 1 second	Blue LED flashes
End a call	Press the key again for 1 second	Blue LED flashes

Charging	N/A	Red LED constantly on
Charging is completed	N/A	Red LED turns off
Low battery (< 3 volt)	N/A	Red LED flashes

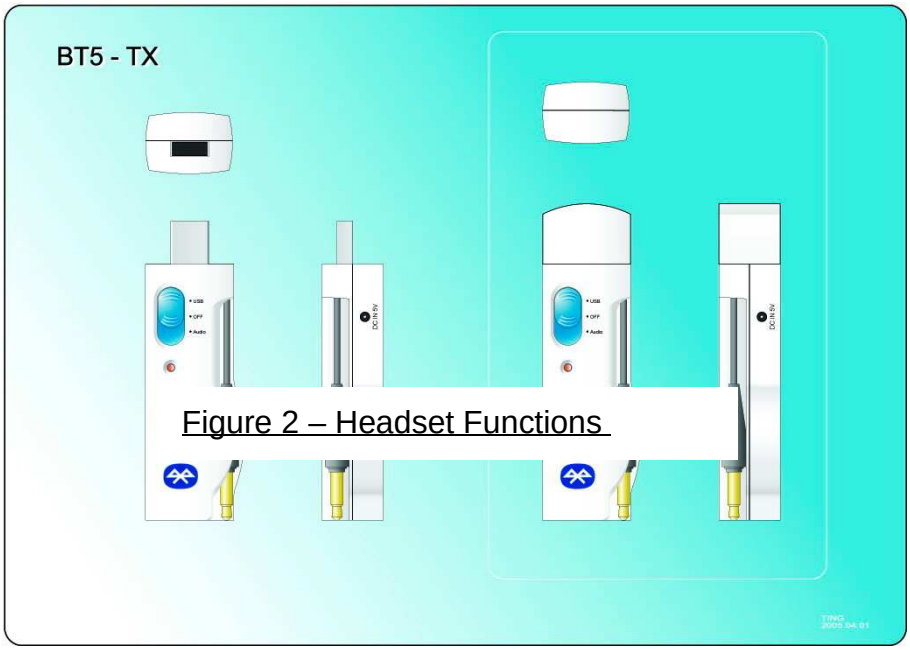

Figure 2 – Headset Functions

Figure 3 – TX/HCI Dual Mode Dongle

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How to Use

Bluetooth Stereo Headset performs well with the Bluetooth TX/HCI Dongle and can be used to demonstrate the following usage scenarios:

- Responding to cell phone
  Pick up / drop calls made to the headset from Bluetooth enabled cell phones. Unlike the mono headsets, Stereo Headset can transfer ring/voice to both your ears with two channels. In this scenario, the ability of the headset to stream music is not utilized.

- Enjoying the superior music quality
  Connect the Bluetooth TX/HCI Dongle with an audio source and play music. Let the music be streamed to the Stereo Headset. Users can also use another Bluetooth enabled device that minimally supports the A2DP profile of the Bluetooth specification, version 1.1 to play music. In this scenario the ability of the headset to pick up / drop phone calls is not utilized.

- Switching between music and phone calls
  The headset can switch between listening to music and answering calls made to your Bluetooth enabled cell phone. In this scenario, the complete functionalities of the Stereo Headset are demonstrated.

Before You Use

- Stereo Headset

Please make sure the battery power of the headset is sufficient. If the power is low, the Red LED indicator of headset will start to flash.

Please charge the headset when you see the low power signal. When you are charging the battery, the Red LED indicator will constantly on. When the battery is full, the light of headset will shut off automatically.

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- TX / HCI dongle
  - As a TX dongle, you should turn off the device and charge it through USB jack. It the battery is low, the red LED will start flashing.
  - As a HCI dongle, you didn't need charge it because power comes from PC.
- **Note: 1. If the power is low, the Red LED indicator of headset will start to flash.*
  2. When charging is completed, the red LED indicator will be off.

Responding to Cell Phone

1. Setting Up

Before you turn on the headset, please use the USB charging cable to charge them.

2. Pairing

(1) Turn on the Bluetooth enabled cell phone.
(2) Turn on the headset.
(3) Operate the Bluetooth enabled cell phone to search headset
Note: Users need to keep the two devices between 2 meters in case of connection failure. The Blue LED indicator of headset will be constantly on during search.
(4) Enter PIN code "0000" when the pop-up screen is shown on the cell phone.
(5) Pairing is done while the status LED indicator start flashing.

3.Connecting

(1) "Pairing" creates a link between Bluetooth enabled cell phone and Stereo Headset. It allows the phone to remember the headset's unique Bluetooth ID. You could add it to a list of "Paired Device" in the phone.
(2) The headset only needs to be paired ONE time with the phone before use.
(3) Once the headset is paired, it can be easily connected to the phone.
(4) If the pairing information or log were deleted from the phone, the headset must be paired with the phone again.
(5) Start to use Stereo Headset to pick up / drop calls in a wireless mode.

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**Note:*

1. *Some cell phones require that an explicit connection be established with the headset. For example, Nokia 3650 requires a Bluetooth connection to the headset be initiated and stay connected before proceeding further. Other phones may initiate a Bluetooth connection only when a call is received. Please refer to the user manual of the cell phone being used and fully understand its behavior.*
2. *Some cell phones send the ring indication to the headset while others do not. If your cell phone supports this feature, you should hear the ring tone of your cell phone on the headset. Phones that do not support ring indication will automatically accept the call.*

4.Re-connecting

When the headset loses connection to Bluetooth enabled cell phone, you need to repeat step 3 to re-connect it.

5.Turning Off

Turn off the headset by setting the power switch to “off”.

Enjoying the Superior Music Quality

Before using the headset to listen to music, you should make a music connection as follows:

1. Setting Up Music Source

Set the Bluetooth TX/HCI dongle to TX mode. Then link it to the audio source. The green LED indicator on TX/HCI dongle will flash quickly and search for the headset.

2.Connecting Headset with TX / HCI dongle

(1) Turn on the headset. Meanwhile, you can hear the opening sound from the headset.

(2) Pair your headset with TX / HCI dongle. Headset can be automatically paired.

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(3) When the pairing is done, the Blue LED indicator on headset will start flashing.
(4) The green LED indicator on TX / HCI dongle will flash slowly.
(5) Play music. You can hear music from the headset.

**Note:*

1. *It may take you a few seconds in paring headset with the TX/HCI dongle for the first time. It will be quicker in searching after that.*
2. *If you turn on TX/HCI dongle but it cannot find any device to pair with after 3 minutes, it will turn off automatically to save power.*

Switching Between Music and Phone Calls

1.Setting Up / Prerequisite

Please confirm the headset has been added to a list of “Paired Device” in the Bluetooth enabled cell phone. Set the Bluetooth TX/HCI dongle to TX mode.

**Note:*

If you haven’t paired the headset with the Bluetooth enabled cell phone before, you need to refer to the section “Responding to Cell Phone”.

2. Making the Switch

(1) Repeat the procedure ”Enjoying the Superior Music Quality”, and play music.
(2) Use the cell phone and find the headset on the “Paired Device” list. Then, operate the cell phone to connect to headset.
(3) When the connection is set up, the music will pause and you can switch to the cell phone mode automatically. You can start to make an outgoing call and are able to converse over the phone.
(4) When your conversation is done and you stop using the cell phone, the streaming of music will resume immediately and automatically.
(5) If someone calls you, the music will pause and you can answer the phone.
(6) After the phone call ends, the music will resume again.
(7) You can repeat this scenario and switch freely between cell phone and music mode.

3.Turning Off

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If you don't want to use the headset, turn off the headset by long press the function key. If you don't want to use TX/HCI dongle, turn it off too.

Use TX/HCI dongle with PC

1.BlueSoleil Installation

(1) Please make sure your computer are using windows operating system 98SE/ME/2K/ XP or later.

(2) Put the companion CD in the CD-ROM. Find the folder "BlueSoleil" and open it.

(3) Find the "Setup" file and double click it.

(4) Choose the language version and follow the instruction to complete the installation.

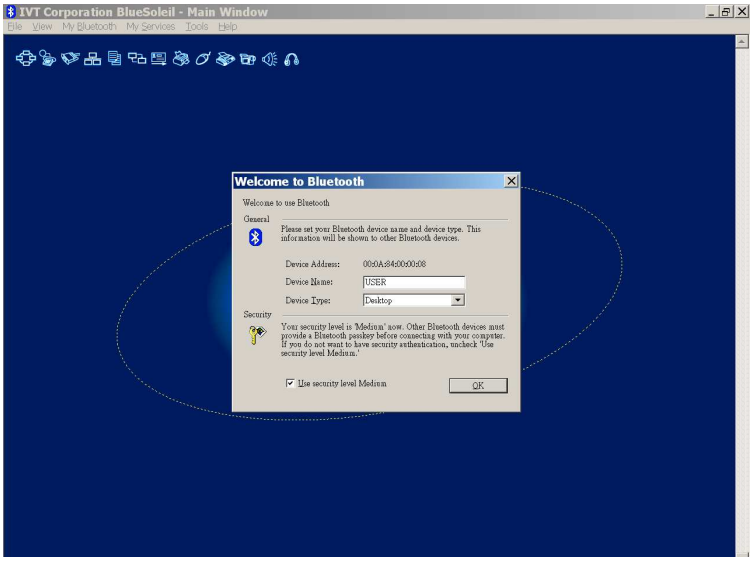
(5) Reboot your system.

2.Starting to Use BlueSoleil

(1) Set the TX/HCI dongle to HCI mode. Plug it in a USB port of a PC. Double click BlueSoleil icon

and start to use the software.

(2) Name your TX/HCI dongle.



(3) If you want to change your name, please click "My Bluetooth" menu and

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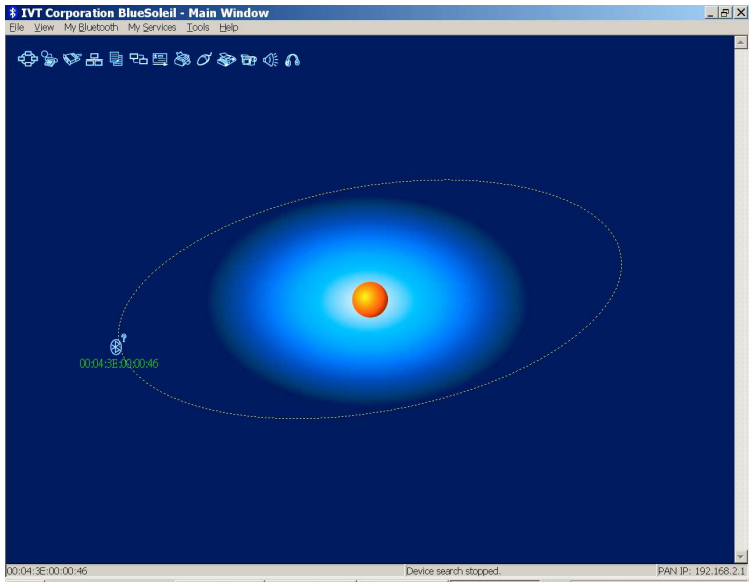
choose “Device Properties”. Enter a unique device name in the “Device Name” field.

(4) The orange ball in the middle of the screen stands for your own USB dongle. When you want to search for Bluetooth devices around, you need to press the ball. You can also click “View”>”Refresh Devices” to find new devices.



3.Available Services

Listening to the Music

(1) Find a Bluetooth stereo headset and turn on it.

(2) Use BlueSoleil to discover it.

(3) After you discover the headset, the address below the icon is its BD address. You need to click “Refresh Service” again and the name is changed to “Toongin-HS”.

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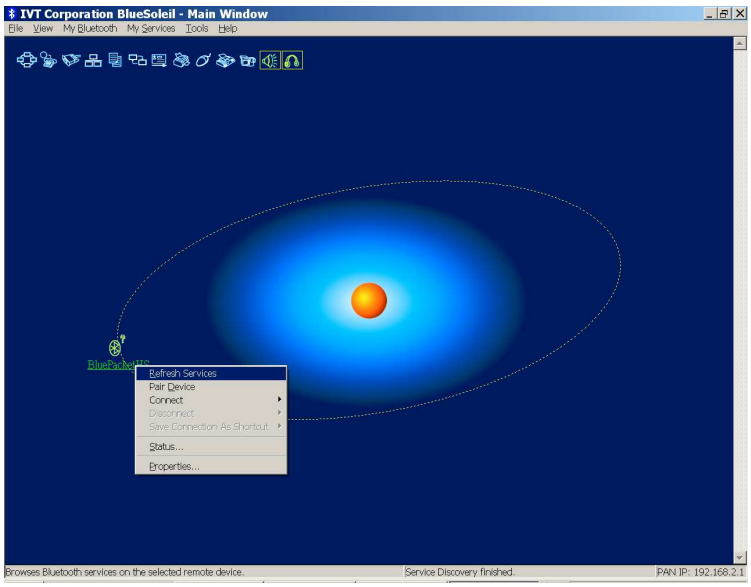
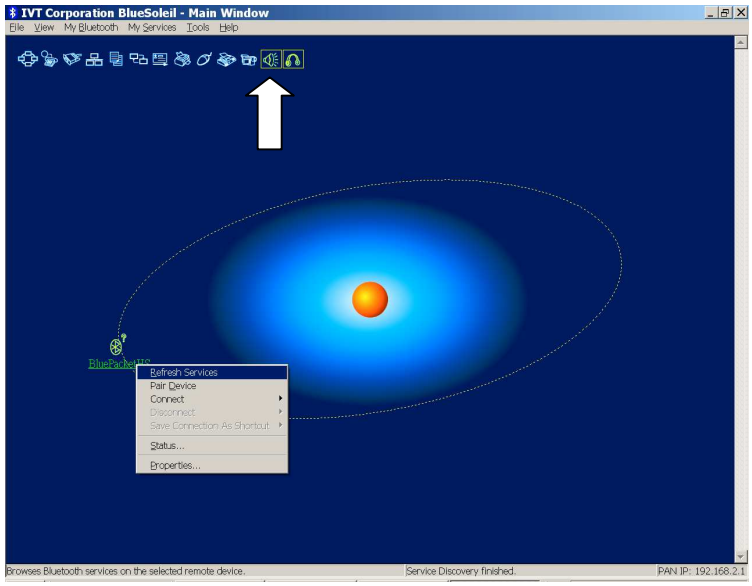


(4) Right click the headset icon and make sure if there is any services available. If not, you need to refresh it until some service icons (i.e. headset and AV) are turning to yellow. Those yellow icons indicate the available services for you to use.



(5) To listen to music, you need to choose” Bluetooth AV Service” or click the icon that is second from the right. After the connection being established, you can find a link shown between the headset and TX/HCI dongle.

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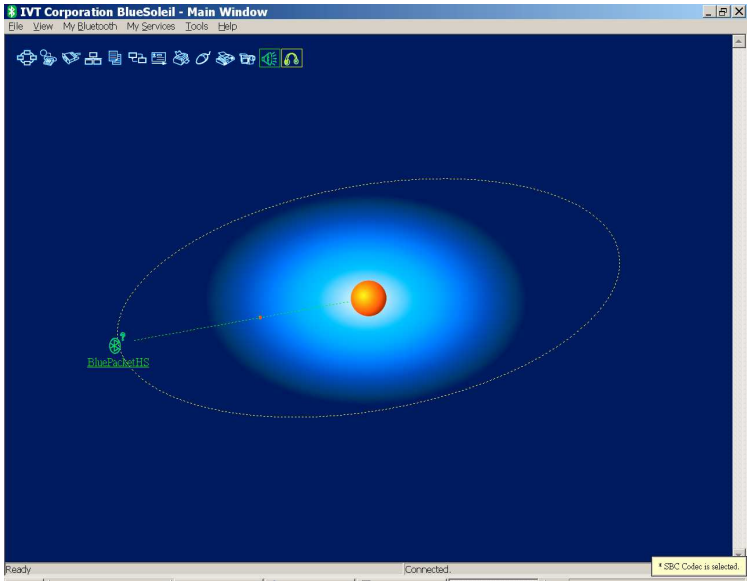
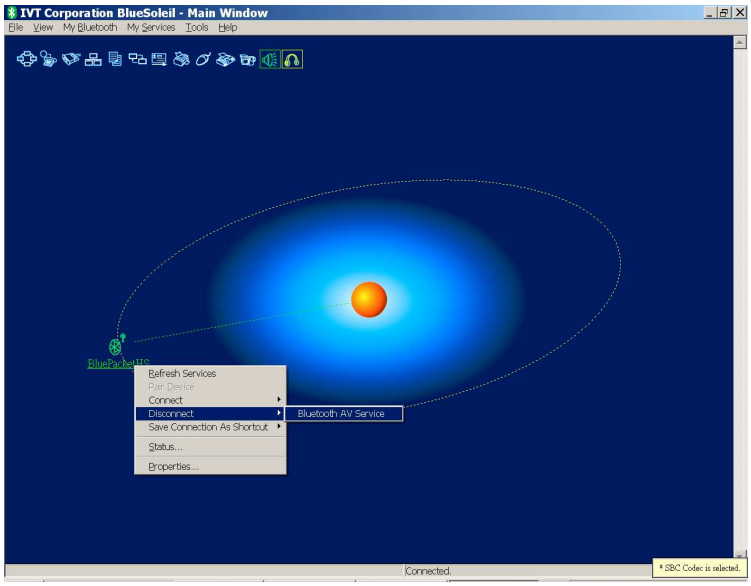


(6) After setting up the BlueSoleil, you need to launch Windows Media Player to play music. You can hear music from the headset shortly. Please note that you need to launch BlueSoleil first, then go for Windows Media Player.

(7) If you don't hear any music, please check FAQ for more details.

(8) To disconnect the device, right click the headset icon then select "Disconnect">"Bluetooth AV Service".



(9) To leave the program, please click "File" >"Exit".

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Switching Between Music and Phone Calls

1.Setting Up / Prerequisite

(1) Find a Bluetooth cell phone.
(2) Turn on the Bluetooth stereo headset. Pair the headset with the cell phone.
(3) Please confirm the headset has been added to a list of “Paired Device” in the Bluetooth enabled cell phone.
(4) You can see the section "Responding to Cell Phone" for reference.

2.Playing the Music

(1) Turn off the Bluetooth stereo headset.
(2) Use the Bluetooth TX/HCI dongle to connect the headset.
(3) Play the music.

3.Making the Switch

(1) Use the cell phone and find the headset on the “Paired Device” list. Then, operate the cell phone to connect to headset.
(2) When the connection is set up, the music will pause and you can switch to the cell phone mode automatically. You can start to make an outgoing call and are able to converse over the phone.
(3) When your conversation is done and you stop using the cell phone, the streaming of music will resume immediately and automatically.
(4) If someone calls you, the music will pause and you can answer the phone.
(5) After that, the music will resume again.
(6) You can repeat this scenario and switch freely between cell phone and music mode.

3.Turning Off

Once you are done, turn off the headset. If you don’t want to use TX/HCI dongle either, please set the switch into power off mode.

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Using Internet Telephony

1.Setting Up / Prerequisite

Please confirm the computer has installed Internet telephony software. Make sure the Headset is not connecting with any other Bluetooth device.

2. Getting started

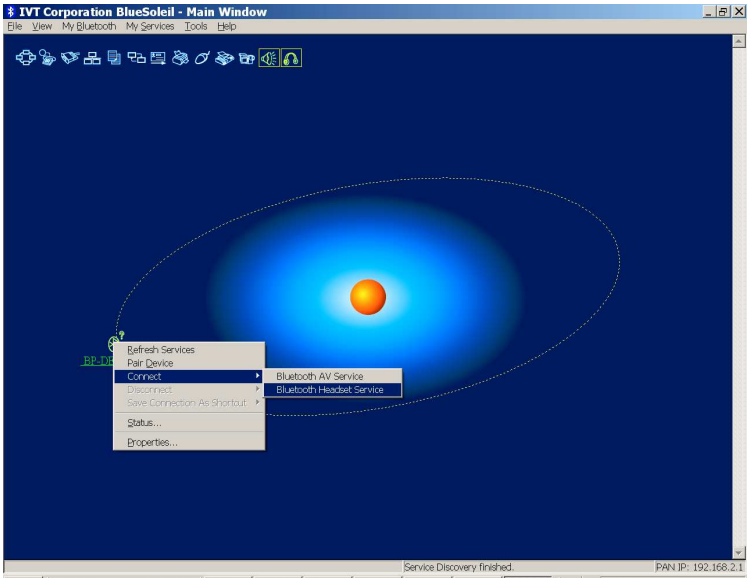
(1) Double click BlueSoleil icon to launch the software.

(2) Power on the Headset.

(3) Operate BlueSoleil to do a search to find the Headset.

(4) Right click the Headset icon and choose “Refresh Services”. You can also click “View”>”Refresh Devices”.

(5) Right click the Headset icon. Choose “Connect”>”Bluetooth Headset Service” or click the first-from-the-right icon.



(6) After the connection is being successfully made, you can then find a link added between the headset and TX/HCI dongle. While hearing a ring tone from the headset, please press the jog-dial button on the volume key to answer it. Then the connection is made.

**Note:*

1.After 25 seconds without answering it, it will stop ringing and system will disconnect automatically. Please repeat the set up procedure to proceed.

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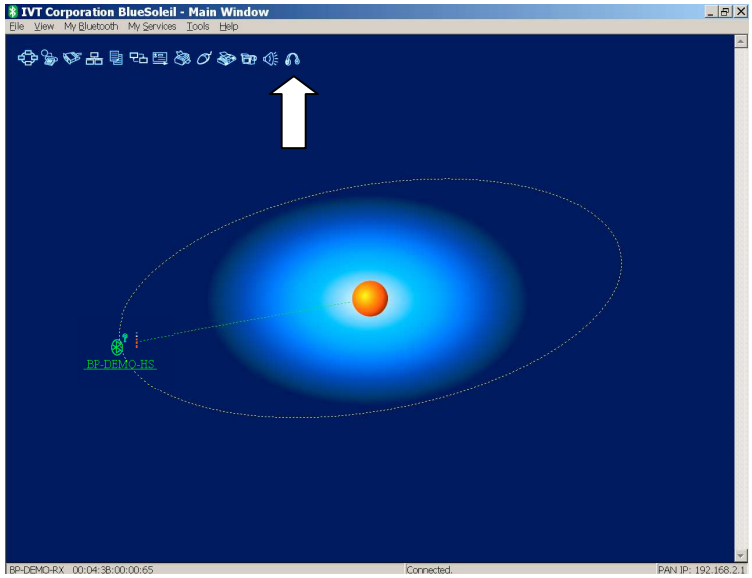
2.You can not connect to Bluetooth enabled cell phone when you are using Internet telephony.



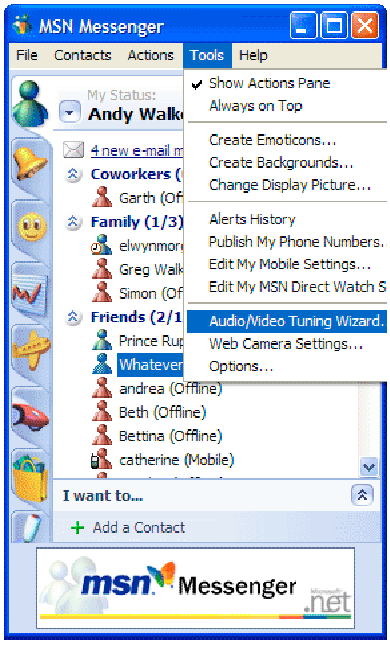
Connecting to MSN

(1) Launch MSN Messenger. Choose ”Audio / Video Tuning Wizard”.

(2) Set “Microphone” and “Speaker” to “Bluetooth Audio”.

(3) Follow the procedure and end up setting.

(4) Start to use MSN with Bluetooth Headset.



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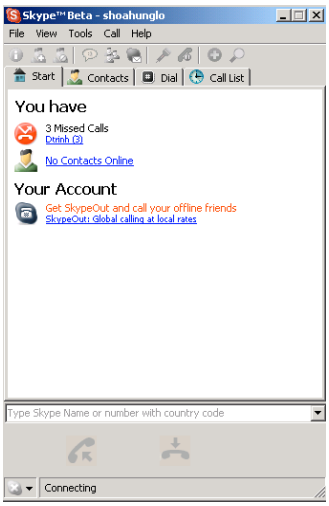
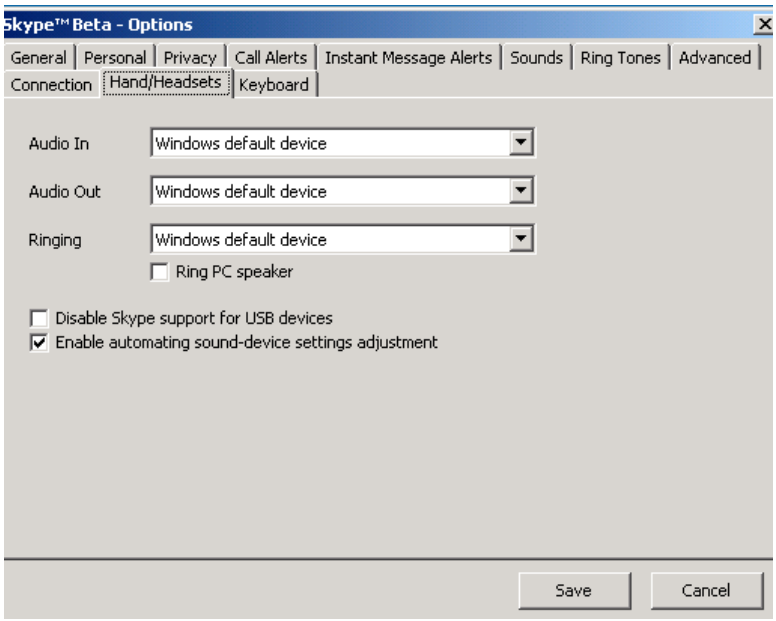
Connecting to SKYPE

Start SKYPE. You don't need to do any setting for using Bluetooth Headset.

**Note:*

If you can't use the Headset, please go to "File">"Options">Hand/Headsets. Keep the settings as below.





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Using Cell Phone Services

1.Paired with the cell phone

(1) Find a Bluetooth enabled cell phone.

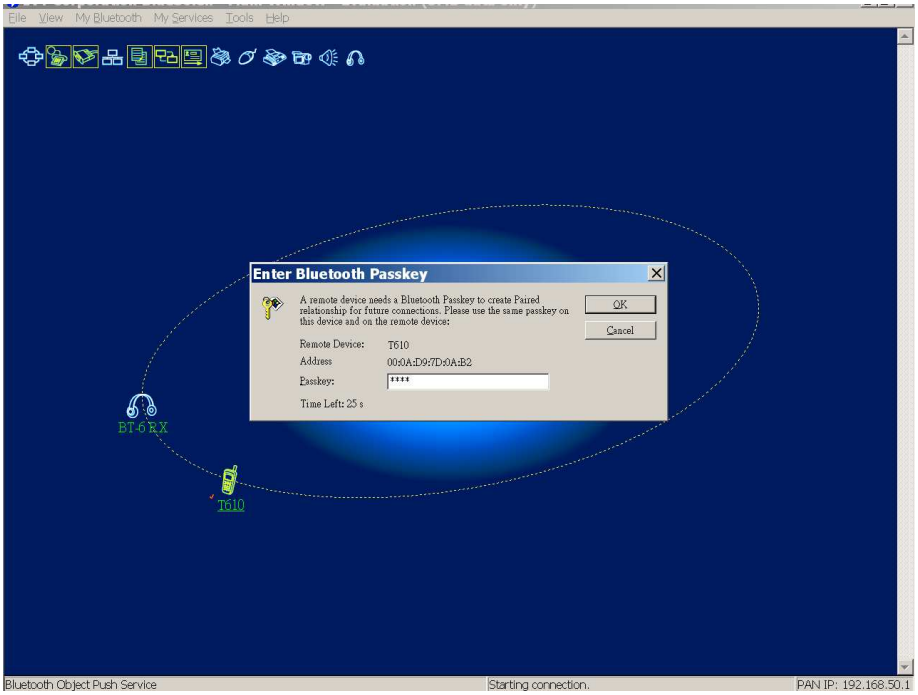
(2) Use BlueSoleil to find it.

(3) Right click the cell phone icon and choose “Refresh Services”. You can also click “View”>”Refresh Devices”.

(4) You can find the available services showed as yellow icons.

(5) Choose the service you want to use.

(6) Before you choose any services, you need to pair with the cell phone first. You should enter the passkey in the cell phone. Usually, it’s “0000”. Then enter the same PIN code in the key column in BlueSoleil.



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2.File Transfer

After pairing with cell phone, you can exchange the files in the cell phone with those in the PC.

3.Object Push

Choose the “Object Push” function to put the information in the PC to the cell phone.

4.Information Synchronization

Use the “Information Synchronization” function to sync the files with your cell phone. So your files in the cell phone and your information kept in Microsoft Outlook will be in sync.

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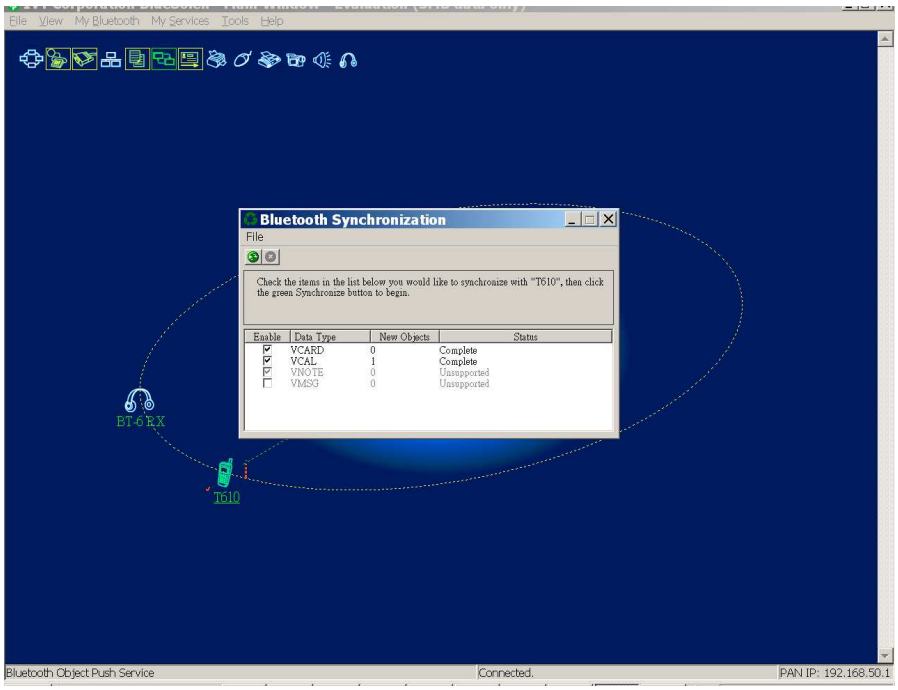

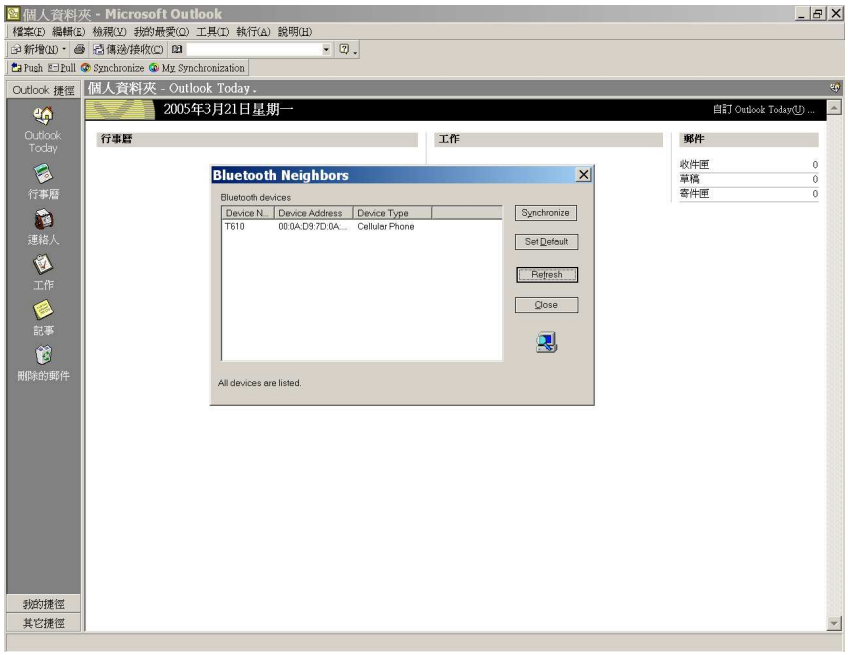

**Note:*

The available services may differ due to different brands of Bluetooth enabled cell phones. Please check the user manual of your cell phone.

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Specification – Headset

Product Name	Bluetooth Stereo Headset
Standard	Bluetooth 1.2 compliant
Power Class	Class 2
Frequency Band	2.402~2.480 GHZ unlicensed ISM band
Profile Supported	AV, Headset and Hands-Free Profiles
Audio Format	SBC
Memory	8M flash external memory
Rx Sensitivity	< 0.1% BER at -86 dBm
RF Output Power	-6dBm to 4 dBm
Sampling Rate	48 KHz
Antenna	embedded antenna
Working Distance	up to 10 meters (in open space) *Note: The maximum operating range depends on the paired phone model, battery power, and environmental factors.*
Power Consumption	Music Streaming: 75 mA (Typical),
Listening Time	5 hours (Typical)
Power Supply	3.7V/300mA Lithium Ion Battery
Operating Temperature	-10 ℃ ~ +55 ℃

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Specification – TX / HCI Dual Mode Dongle

Product Name	Bluetooth TX / HCI Dual Mode Dongle	
Standard	Bluetooth 1.2 compliant	
Power Class	Class 2	
Frequency Band	2.402~2.480 GHZ unlicensed ISM band	
Profile Supported	TX Mode	A2DP, Headset and Hands-Free Profiles
	HCI Mode	Generic Access (GAP) Service Discovery Application (SDAP) Serial Port (SPP) Dial-Up Network (DUN) FAX File transfer (FTP) LAN Access (LAP) Synchronization (SYNC) Object Push (OPP) Generic Object Exchange (GEOP) Headset (HSP) Hardcopy Cable Replacement (HCRP) Human Interface Device (HID)
Interface	USB 1.1 or 2.0	
Audio Format	SBC	
Memory	16 M flash external memory	
RF Output Power	-6dBm to 4 dBm	
Sampling Rate	48 KHz	
Antenna	embedded antenna	
Working Distance	up to 10 meters (in open space) *Note: The maximum operating range depends on the paired phone model, battery power, and environmental factors.*	
Power Consumption	Music Streaming 75 mA(Typical),	
Listening Time	Depends on customer's battery.	
Power Supply	Lithium Ion Battery (Depends on customer)	
Operating Temperature	-10 ℃ ~ +55 ℃	
Operation system	Windows 98SE / ME / 2000 / XP Mac OS 10.2 or later version (limited Bluetooth profiles support)	

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FAQ

1. Q : How do I know that the battery of the headset have insufficient power?

A : The battery power is almost exhausted when one or more following scenarios happen:

(1) The headset starts to reset automatically.

(2) You can constantly hear breaks on the audio link, or

(3) You cannot connect the headset to the TX/HCI dongle after several tries.

Please charge the battery to avoid these problems above.

2. Q : Why cannot I create a connection to the headset?

A :

(1) Verify that the battery power of headset is not running low.

(2) Check if the headset is powered on and the indicator LED is steadily light on.

(3) Verify that the headset is within the specified range of 10 meters from the audio source.

(4) Check if any other Bluetooth device has connected to the headset. If headset is connected with other devices, the indicator LED on the headset is flashing.

(5) Turn both the headset and the TX/HCI dongle device off. Power on the headset on and then power on the TX/HCI dongle and try connecting again.

3. Q : When I use Windows Media Player, the music is out from the PC speakers instead of Bluetooth headset. What should I do?

A : If you set the TX/ HCI dongle to TX mode, you don't need to change any settings. Just keep the default setting. If you set the TX/HCI dongle to HCI mode, you need to start "BlueSoleil" first than launch Windows Media Player. If you can't do it successfully, you need to change the Windows default audio system as follows:

(1) Launch "Adjust Audio Properties" by right clicking the "volume icon" in the lower right corner in your PC screen. Choose "Sounds and Multimedia Properties " >"Audio". Select " Bluelet Audio".

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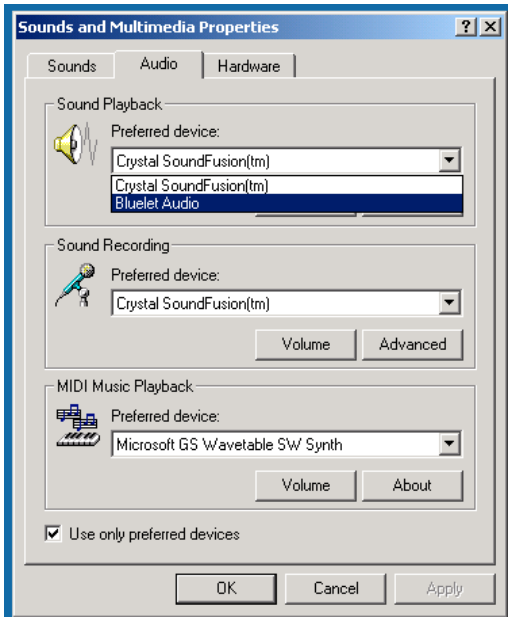
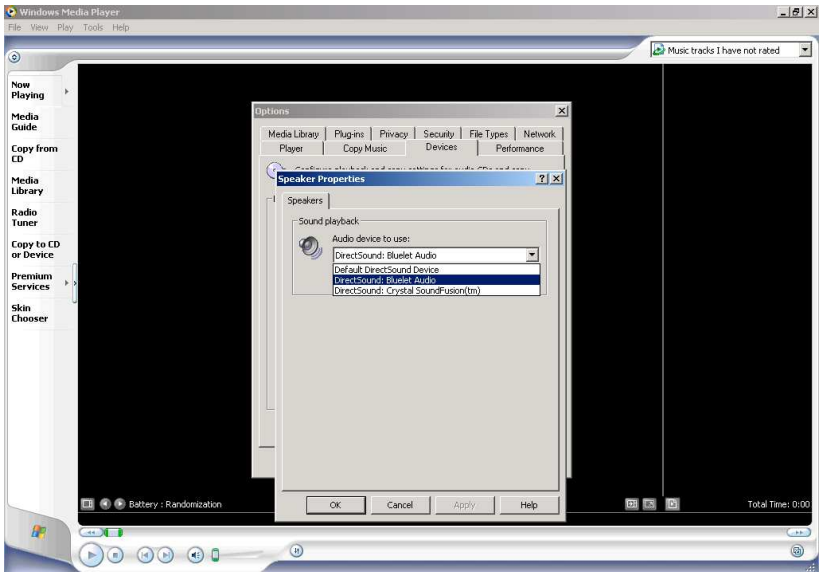


(2)Double click “Windows Media Player”. Choose “Tool” > ”Options” > ”Devices” > ”Speakers”. Find “Bluelet Audio” in “Speaker Properties”. Select it and exit ”Windows Media Player”.



(3)Double click “BlueSoleil” and connect to headset. Then reopen “Windows Media Player”.

4. Q : Why do I hear beep from the headset?

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A: The beep means the headset is in the low power status. The headset will beep every 20 seconds to remind you to charge it. Meanwhile, the charging LED indicator is flashing.

5. Q : Why does TX / HCI dongle turn off automatically?

A: If you set the TX/HCI dongle to TX mode and it cannot find any device to pair with after 3 minutes, it will turn off automatically to save power.

6. Q : Why is the green LED indicator of TX/HCI dongle light up steadily?

A: When the TX/HCI dongle is on the cell phone mode, the green LED indicator will light up steadily.

Technical Support

If you have further questions, please contact our Technical Support Department. Thank you!

Appendix – Supported Phone List

Supported Cell Phones by BT-5 Stereo Headset

Brand	Nokia	Moto	Sony Ericsson	Siemens	Panasonic	Dopod
	3650	v600	T610	U15	X70	575
	3660	v500	T630			
	6230	v525	T68i			
	6820	v80	Z600			
	7610	A630	K700i*			
		V620	P900			
		E398	S700			
		E550				
		V535				
		V545				
		V550				
		V600i				
		V710 CDMA				
		A768i				
		A768				
		V3				

- The list is subject to change.
- Cell phone with a “ * ” mark is conditionally supported.

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