Bluetooth™ Stereo Headphone Kit

Bluetooth™ Audio Stream Headphone & Dongle

BSH-2XX

> User Manual

Copyright

This publication, including all photographs, illustrations and software, is protected under international copyright laws, with all rights reserved. Neither this manual, nor any of the material contained herein, may be reproduced without written consent of the author.

Copyright 2005

Version 1.0, July 2005

Disclaimer

The information in this document is subject to change without notice. The manufacturer makes no representations or warranties with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. The manufacturer reserves the right to revise this publication and to make changes from time to time in the content hereof without obligation of the manufacturer to notify any person of such revision or changes.

Trademark Recognition

Bluetooth is a trademark of the Bluetooth SIG, Inc. (Special Interest Group). The Bluetooth trademark is owned by Bluetooth SIG, Inc. USA.

BlueSoleil is a trademark of IVT Corporation.

Winamp is a trademark of Nulsoft Incorporated.

Windows Media Player is a trademark of Microsoft Corporation.

Other product names used in this manual are the properties of their respective owners and are acknowledged.

About This Manual

This manual provides information for setting up and configuring the BSK200. This manual is intended for home users.

Safety Information

- Only use the supplied travel adapter.
- Do not place anything on the power cord. Place the power cord where it will not be in the way of foot traffic.
- Before cleaning the headset or transmitter, disconnect the travel charger.

Conventions Used in this Manual

The following conventions are used in this manual.

	NOTE ICON: PROVIDES MORE INFORMATIN ON THE CURRENT TOPIC.

	IMPORTANT ICON: PROVIDES IMPORTANT INFORMATION ON THE CURRENT TOPIC THAT MUST NOT BE OVERLOOKED.

	WARNING ICON: ALERTS YOU TO A SITUATION THAT COULD CAUSE PERSONAL INJURY.

Table of Contents

Getting Started with the BSK200 1
Unpacking and Checking the Contents 1
Identifying Components 1
Headset Parts 1
Transmitter Parts 2
Headset Status LEDs Main Functions 3
Transmitter Status LEDs Main Functions 4
Mode Switch 4
Charging the Headset and Transmitter Batteries 5
Charging the Headset with the USB Cable 5
Charging the Transmitter with the USB Cable 6
Charging the Headset with the Travel Adapter 6
Charging the Transmitter with the Travel Adapter 7

Software and Driver Installation 9
Installing the IVT BlueSoleil™ Software 9
Installing Drivers for the Transmitter 13

Operation 17
Connecting the Transmitter to an Audio Device 17
Pairing Devices 18
Pairing the Headset and Transmitter 18
Pairing the Headset with the IVT BlueSoleil Program 19
Using the Headset with your Computer 22
Pairing with a Bluetooth Enabled Phone 23
Headset Operation 24
Adjusting the Volume 24
Skipping Tracks 24

Appendix 25
Troubleshooting 25
Resetting the Headset 25
Headset and Transmitter LEDs Detailed Descriptions 25
Headset LED 25
USB connector 26
Audio Jack 26
Available Services 26
Audio Connection 26
USB Connection with IVT BlueSoleil 26
Specifications 27

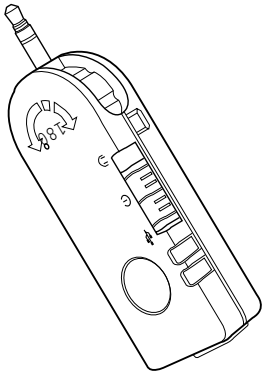
Transmitter 27
Headset 28

GETTING STARTED WITH THE BSK200

Congratulations on your purchase! This section covers unpacking the BSK200 and identifying components.

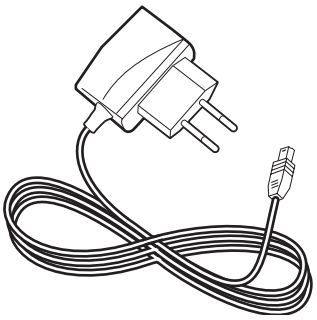
Unpacking and Checking the Contents

Unpack the BSK200 and check that the following items are included:

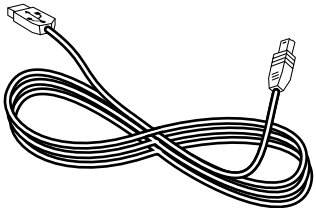


Transmitter

Headset

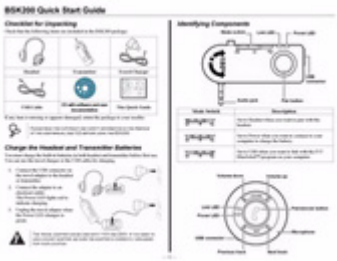


Travel Charger



USB Cable

Utility CD-ROM (Contains drivers, Bluetooth™ software, and user documentation)



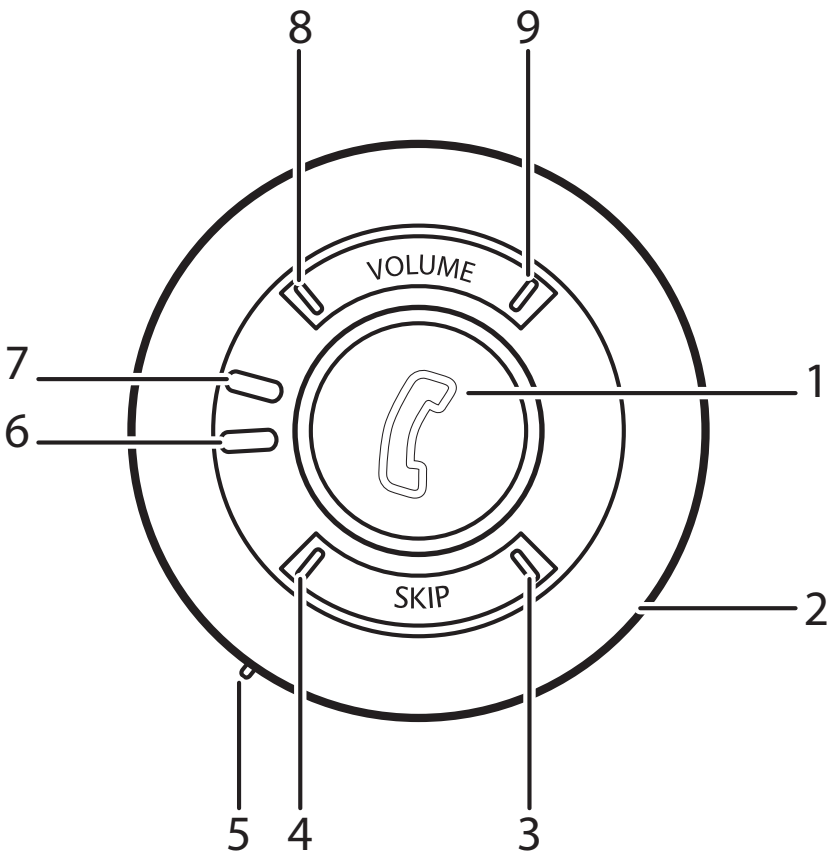
Quick Guide

If any item is missing or damaged, repack the BSK200 and return it to your reseller.

Identifying Components

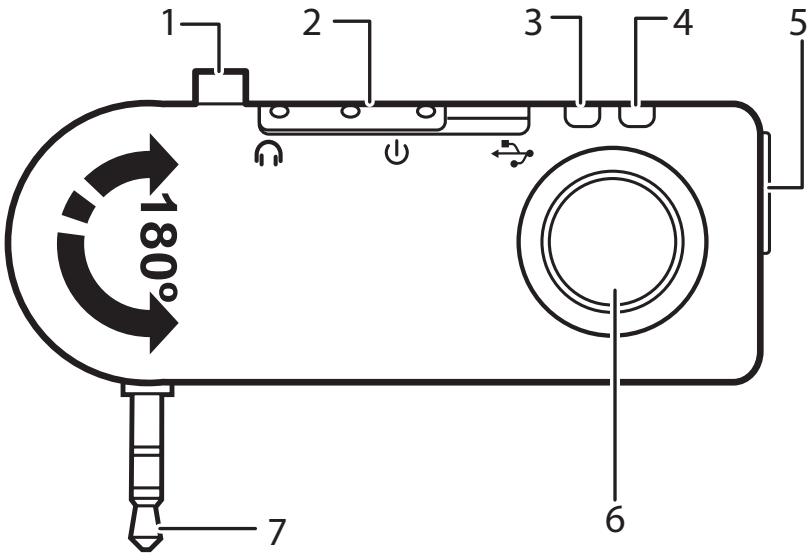
The following illustrations show the headset and transmitter.

HEADSET PARTS



1	Pair/answer button	
	Press to pair with a device	“Pairing Devices” on page 18
	Press to answer incoming call	“Answering Calls” on page 23
2	Microphone	
3	Next	“Skipping Tracks” on page 24
4	Previous	
5	USB Connector	“Charging the Headset with the USB Cable” on page 5
	Reset Button	“Resetting the Headset” on page 25
6	Power LED	“Headset Status LEDs Main Functions” on page 3
7	Link LED	
8	Volume down	“Adjusting the Volume” on page 24
9	Volume up	

Transmitter Parts



1	Stabilizer pin	“Connecting the Transmitter to an Audio Device” on page 17
2	Mode switch	“Mode Switch” on page 4
3	Link LED	“Transmitter Status LEDs Main Functions” on page 4
4	Power LED	
5	USB connector	“Charging the Transmitter with the USB Cable” on page 6 “Pairing the Headset with the IVT BlueSoleil Program” on page 19
6	Pair button	“Pairing Devices” on page 18
7	Audio jack	“Connecting the Transmitter to an Audio Device” on page 17

HEADSET STATUS LEDS MAIN FUNCTIONS

For more details on the status of the LEDs, see “Headset and Transmitter LEDs Detailed Descriptions” on page 25.

LINK LED

Color	Function
Yellow flashing	Power on, searching
Blue flashing	Connected to device

POWER LED

Color	Function
Red	Charging
Green	Charging complete

TRANSMITTER STATUS LEDS MAIN FUNCTIONS

For more details on the status of the LEDs, see “Headset and Transmitter LEDs Detailed Descriptions” on page 25.

LINK LED

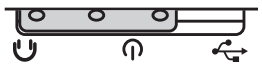
Color	Function
Blue flashing quickly	Power on, searching
Blue flashing slowly	Connected to device

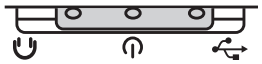
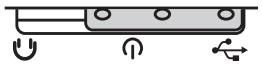
POWER LED

Color	Function
Red	Charging
Green	Charging complete

MODE SWITCH

The mode switch on the transmitter has three positions as described below.

Postition	Function
	Set to Headset when you want to pair with the headset. See “Pairing Devices” on page 18.

	Set to Power when you want to connect to your computer to charge the battery. See “Charging the Transmitter with the USB Cable” on page 6.
	Set to USB when you want to link with the IVT BlueSoleil program on your computer. See “Pairing the Headset with the IVT BlueSoleil Program” on page 19.

Charging the Headset and Transmitter Batteries

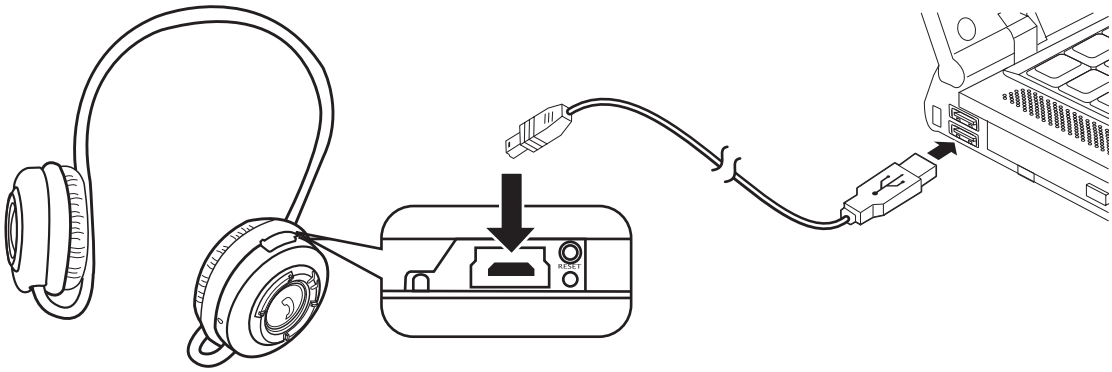
The headset and the transmitter both have a built-in rechargeable battery. Batteries can be charged through the USB cable or the travel charger.

	CHARGING TIME IS ABOUT 2.5 HOURS. THE DEVICES NEED TO BE RECHARGED AFTER ABOUT 6 HOURS OF CONTINUOUS USE.

CHARGING THE HEADSET WITH THE USB CABLE

Refer to the following to charge the headset with the USB cable.

1. Connect the small connector on the USB cable to the headset.



2. Connect the other end of the cable to a USB connector on your computer.

	MOST NOTEBOOK COMPUTER USB CONNECTORS ARE HORIZONTAL. THE USB CABLE SHOULD BE CONNECTED WITH THE USB ICON FACING UP. IF THE USB CONNECTOR ON YOUR COMPUTER IS VERTICAL, CONNECT THE CABLE CAREFULLY TO AVOID DAMAGING THE CONNECTORS.

The Power LED lights red to indicate charging.

3. Unplug the USB cable when the Power LED changes to green.

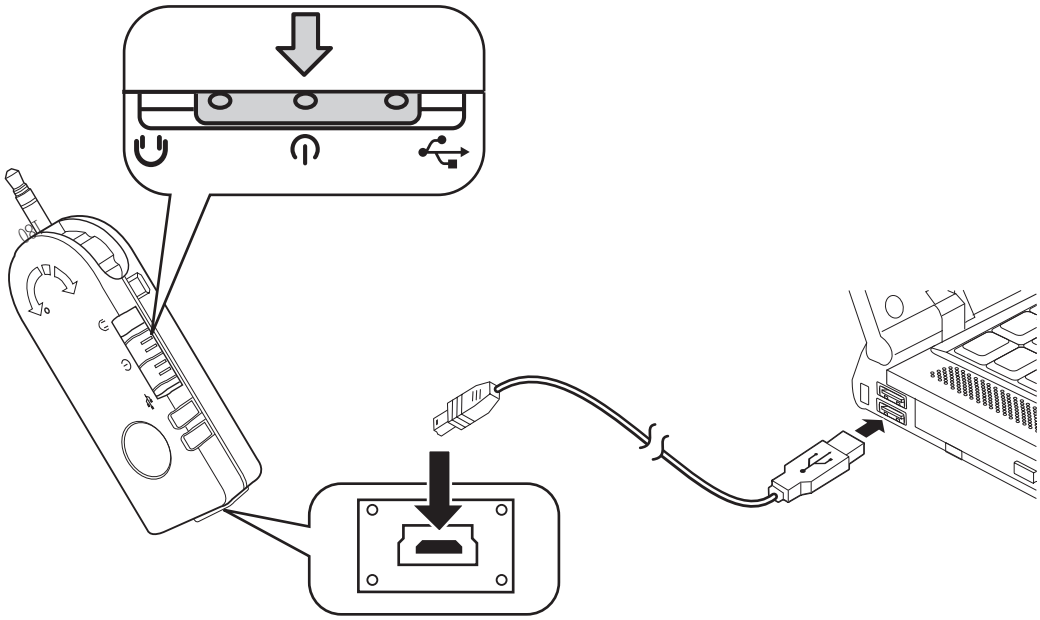
Charging the Transmitter with the USB Cable

Refer to the following to charge the transmitter with the USB cable.

	Ensure the mode button on the transmitter is set to POWER. If the mode button is set to USB, your computer detects and tries to install the new hardware. The transmitter can not be charged in USB mode.

1. Connect the small connector on the USB cable to the transmitter.

2. Set the mode button to Power.



3. Connect the other end of the cable to a USB connector on your computer.

	Most notebook computer USB connectors are horizontal. The USB cable should be connected with the USB icon facing up. If the USB connector on your computer is vertical, connect the cable carefully to avoid damaging the connectors.

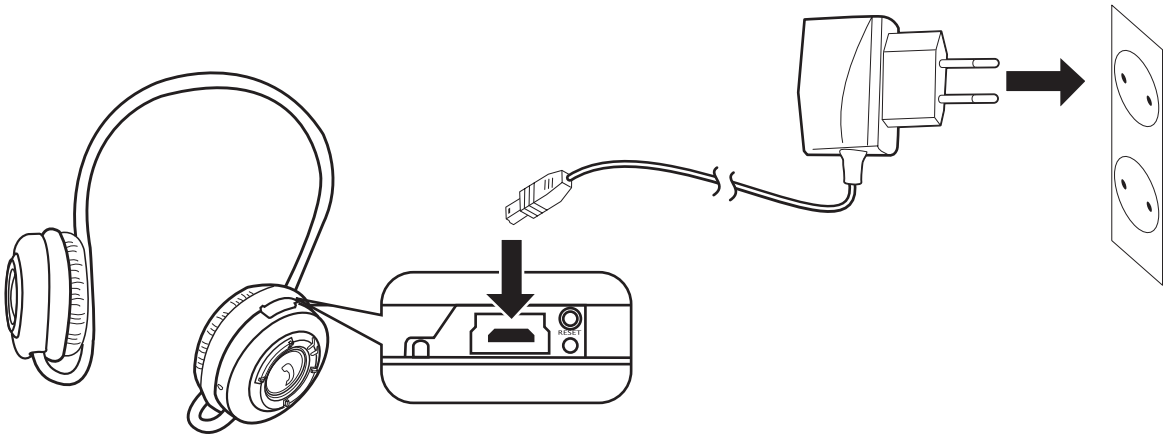
The Power LED lights red to indicate charging.

4. Unplug the USB cable when the Power LED changes to green.

Charging the Headset with the Travel Adapter

Refer to the following to charge the headset with the travel adapter.

1. Connect the small USB connector on the travel adapter to the headset.



2. Connect the adapter to an electrical outlet.

⚠	THE TRAVEL ADAPTER CAN BE USED WITH 110V AND 220V (AUTO SWITCHING). IF YOU NEED TO USE A SOCKET ADAPTER, BE SURE THE ADAPTER IS CORRECTLY GROUNDED FOR YOUR LOCATION.

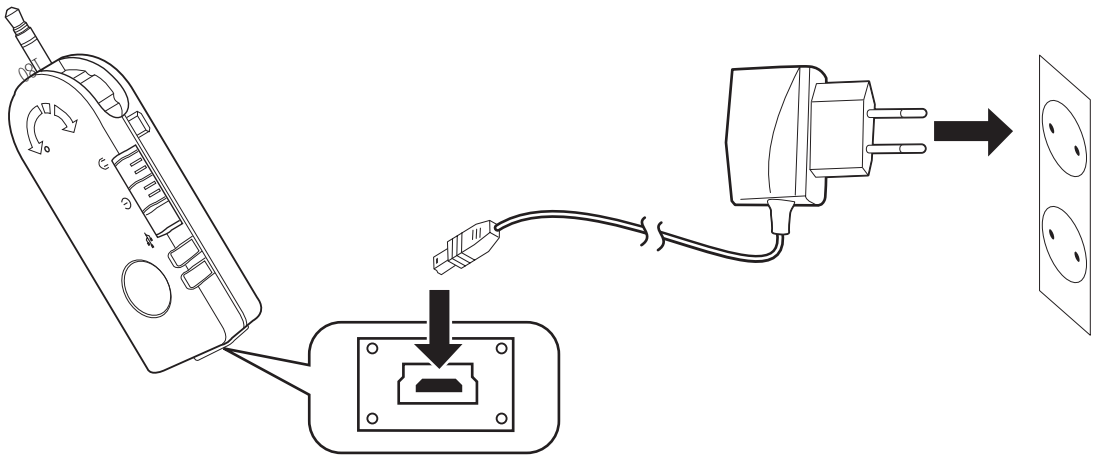
The Power LED lights red to indicate charging.

3. Unplug the travel adapter when the Power LED changes to green.

CHARGING THE TRANSMITTER WITH THE TRAVEL ADAPTER

Refer to the following to charge the headset or transmitter with the travel adapter.

1. Connect the small USB connector on the travel adapter to the transmitter.



2. Connect the adapter to an electrical outlet.

⚠	THE TRAVEL ADAPTER CAN BE USED WITH 110V AND 220V (AUTO SWITCHING). IF YOU NEED TO USE A SOCKET ADAPTER, BE SURE THE ADAPTER IS CORRECTLY GROUNDED FOR YOUR LOCATION.

The Power LED lights red to indicate charging.

3. Unplug the travel adapter when the Power LED changes to green.

SOFTWARE AND DRIVER INSTALLATION

Installing the IVT BlueSoleil™ Software

The IVT BlueSoleil software allows you to manage audio transmissions between your computer and Bluetooth enabled devices.

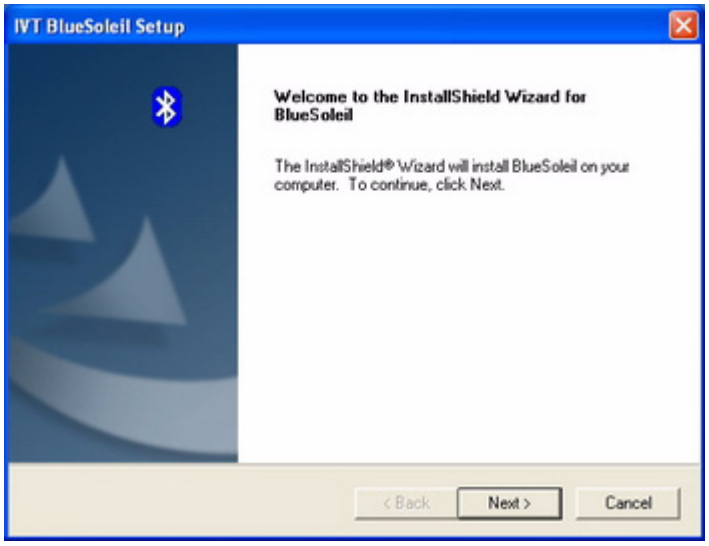
	IF YOU HAVE OTHER BLUETOOTH SOFTWARE INSTALLED, YOU DO NOT HAVE TO REMOVE IT TO INSTALL THE IVT BLUESOLEIL SOFTWARE. HOWEVER, YOUR CURRENT BLUETOOTH SOFTWARE WILL NOT FUNCTION AFTER YOU INSTALL THE IVT BLUESOLEIL SOFTWARE.

1. Insert the supplied utility CD into your CD drive.

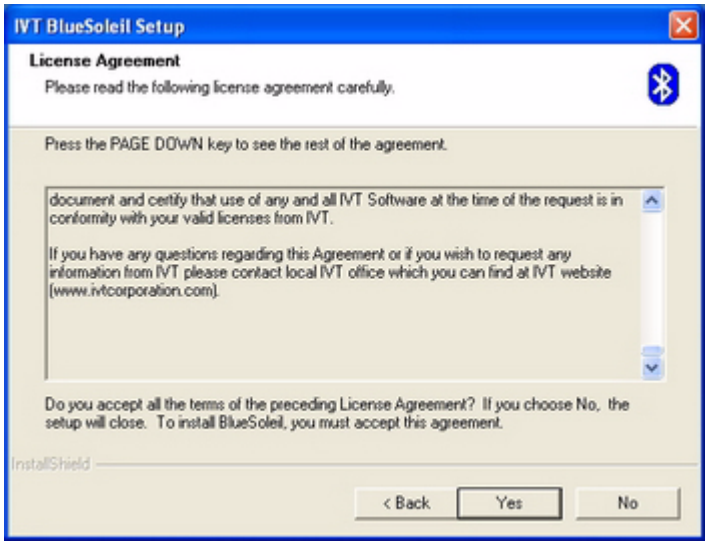
2. Click **Start -> My Computer**, and then browse to the CD drive.

3. On the utility CD, open the **IVT BlueSoleil** folder and double-click **SETUP.EXE.**

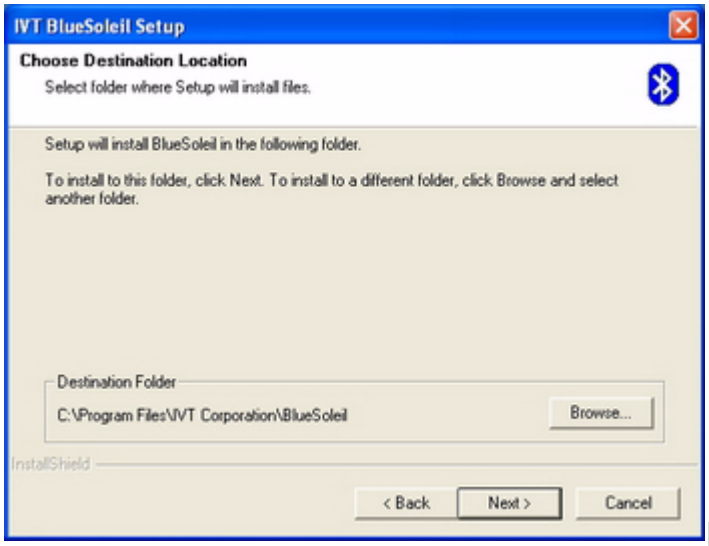
4. Choose the language you want and click **OK**.



5. Click **Next** to continue.

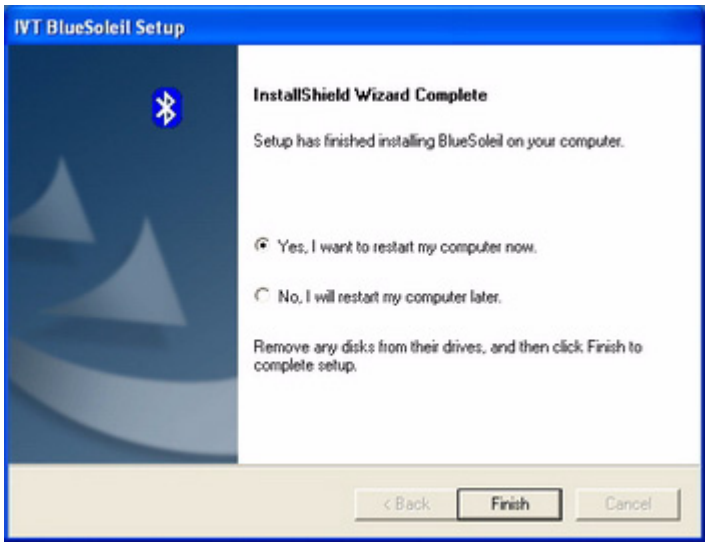


6. Read the license agreement and click **Yes**.



[

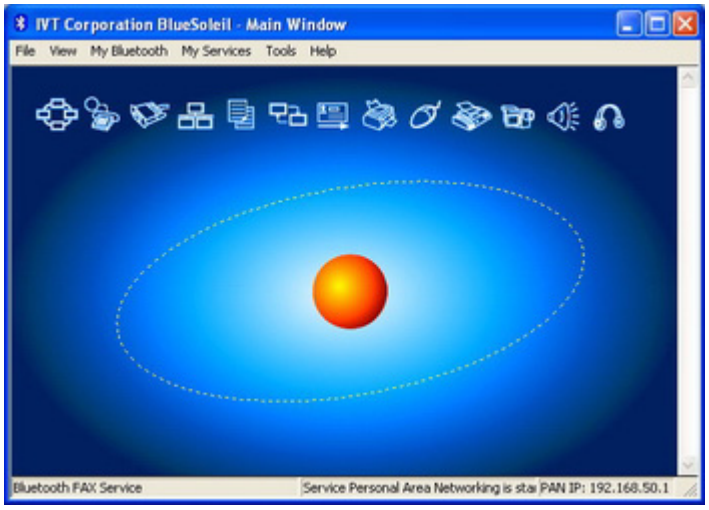
7. Click **Next** to start the installation.
   The installation takes a few minutes, and then the following screen appears.



8. Click **Finish** to complete the installation and reboot your computer. When your computer restarts, the following screen appears.

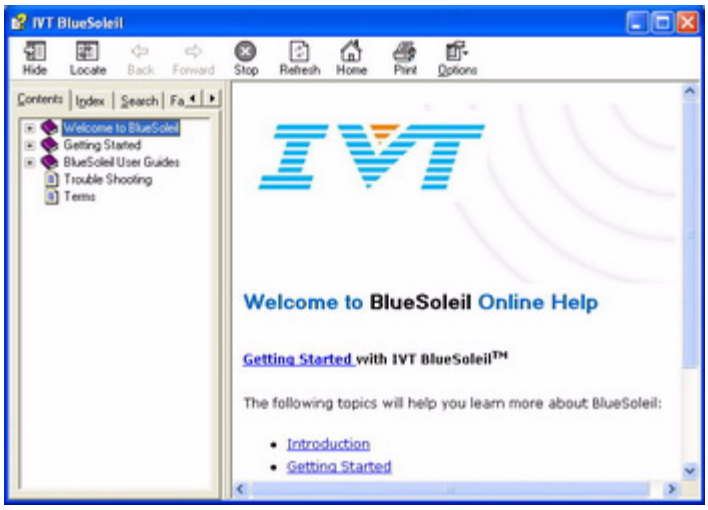
	DEPENDING ON YOUR OPERATING SYSTEM, THE SCREEN BELOW MAY NOT APPEAR UNTIL THE FIRST TIME YOU OPEN THE IVT BLUESOLEIL PROGRAM.

9. Click **OK** to continue. The IVT BlueSoleil program opens.



10. Click **File -> Exit** to close the program.

To learn about this program, click **Help** on the main toolbar. The IVT BlueSoleil help application opens.



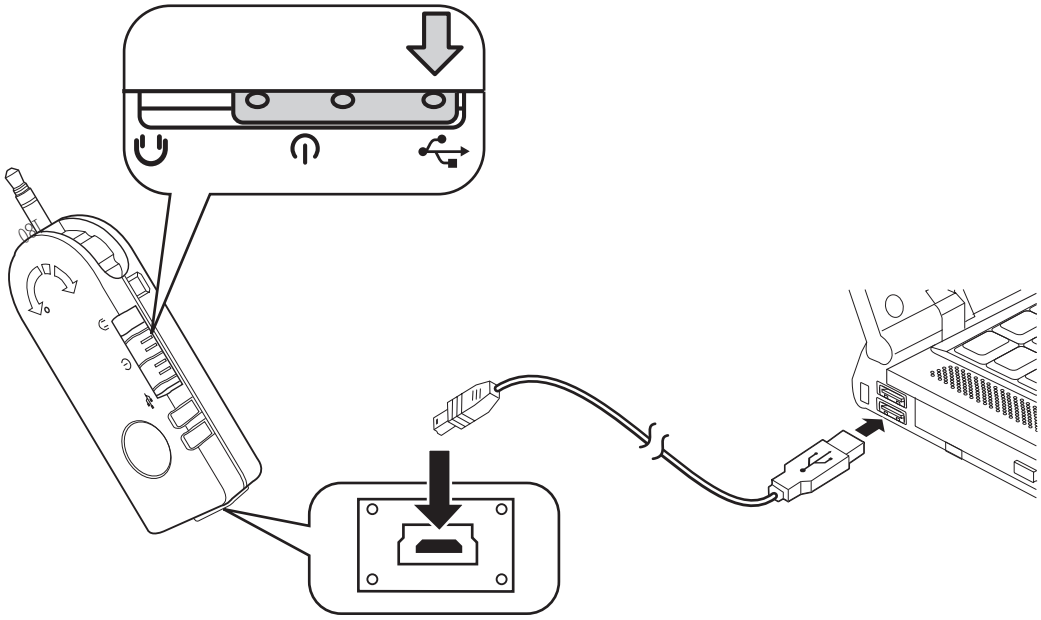
The program includes many service such as using your computer as a server. Look in the Help application for instructions on how to enable these services.

Installing Drivers for the Transmitter

Refer to the following to install drivers for the transmitter.

	THE FOLLOWING PROCEDURE IS FOR WINDOWS XP. SCREENS FOR OTHER OPERATING SYSTEMS ARE DIFFERENT, HOWEVER THE PROCEDURE TO FOLLOW IS VERY SIMILAR AS THAT DESCRIBED BELOW.

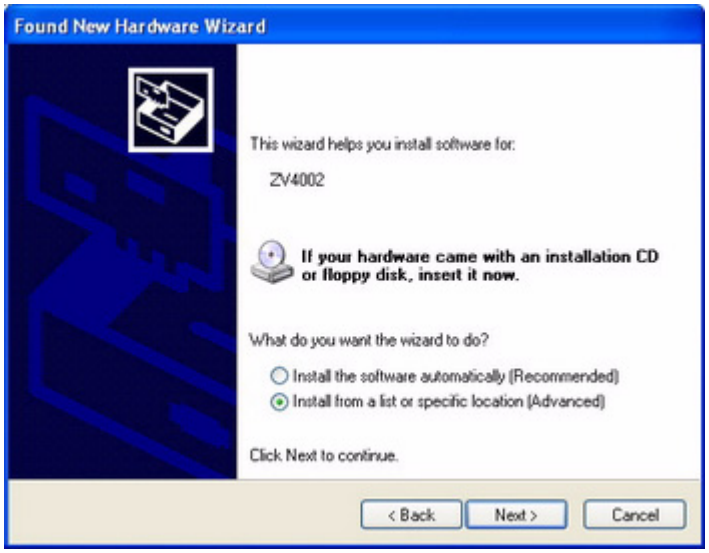
1. Connect the transmitter to a USB connector on your computer.



2. Set the mode switch on the transmitter to **USB**.

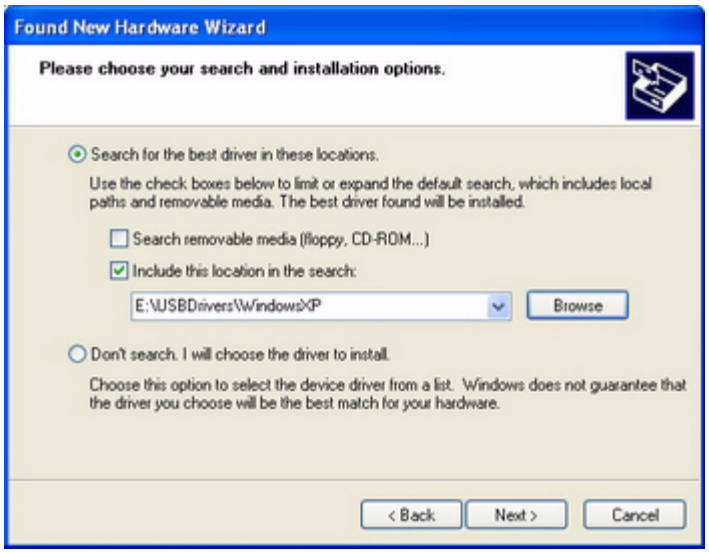
3. The system detects the new hardware and the following screen appears.

4. Select the **No, not this time** radio button and click **Next**.



5. Select the **Install from a list or specific location (Advanced)** radio button and click **Next**.

6. Browse to the WindowsXP folder (or the folder for your OS) on the CD:
   Cyber Headset -> IVT BlueSoleil -> USBDrivers -> WindowsXP, and then click **OK**.



7. Click **Next** to continue.

8. Click **Finish** to complete the installation.

OPERATION

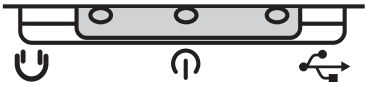
This section covers pairing the transmitter and headset for use with audio devices, pairing the headset with your computer, and pairing with your mobile phone.

Connecting the Transmitter to an Audio Device

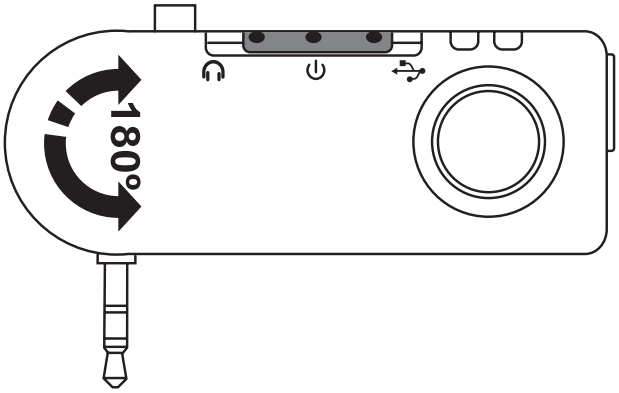
	THE 3.5-MM (1/8 INCH) AUDIO JACK ON THE TRANSMITTER IS THE SAME SIZE AS THE STANDARD JACKS ON COMPUTERS AND ON MOST AUDIO DEVICES. IF YOUR AUDIO DEVICE USES A DIFFERENT SIZE JACK, YOU CAN PURCHASE AN ADAPTER AT MOST ELECTRICAL STORES.

The audio transmitter is a stereo transmitter. You can connect it to any audio device such as a CD player, or MP3 player. You can also connect it to the audio out connector on your computer. Refer to the following to connect the transmitter to your audio device.

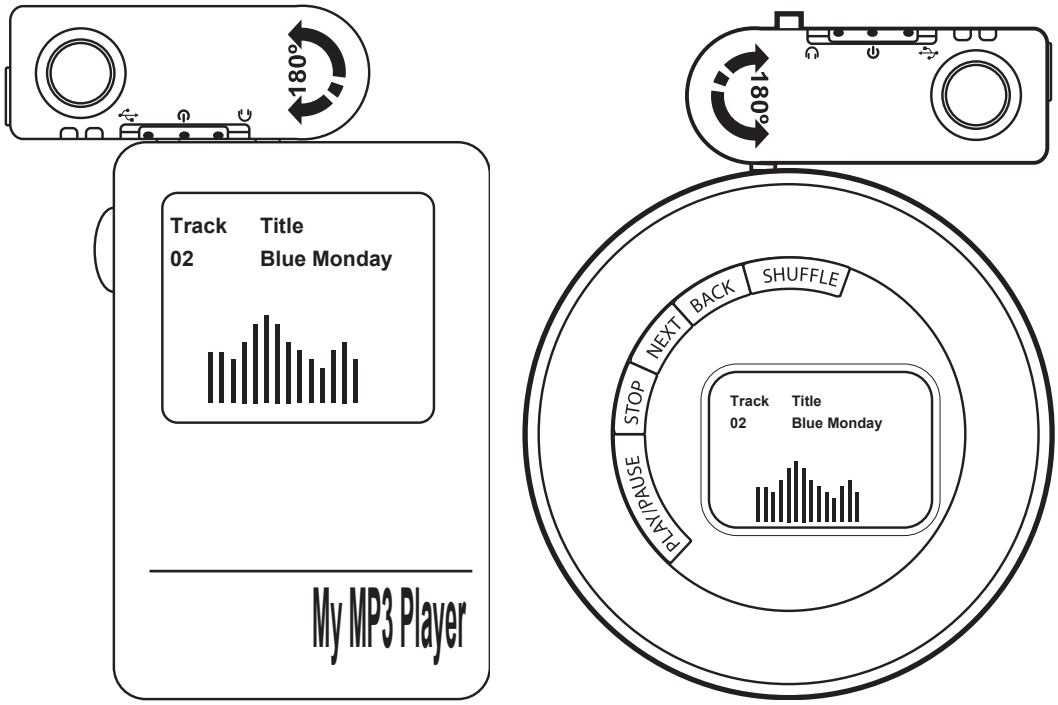
1. Set the mode switch on the transmitter to POWER.



2. Rotate the audio jack as required.



3. Plug the transmitter into the audio out connector on the device.



Pairing Devices

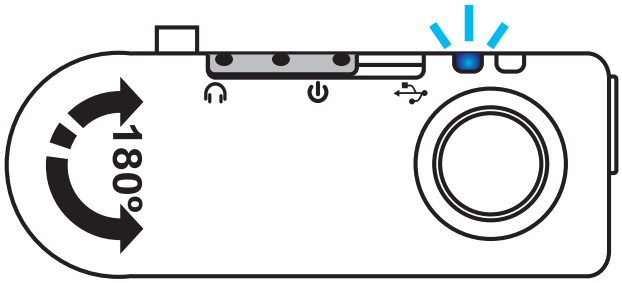
Connect the transmitter to an audio device, now you can you can pair the headset with the transmitter or with a Bluetooth-enabled phone.

Pairing the Headset and Transmitter

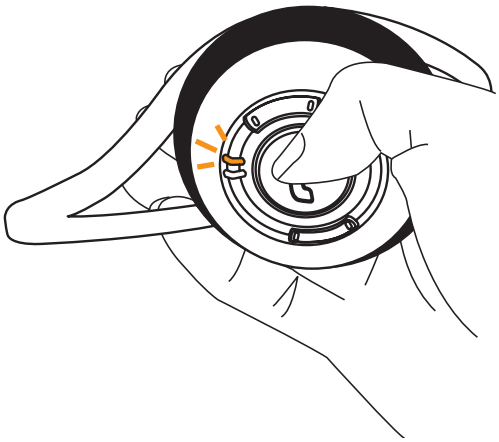
Refer to the following to pair the headset and transmitter.

1. Connect the transmitter to your audio device. See “Connecting the Transmitter to an Audio Device” on page 17.

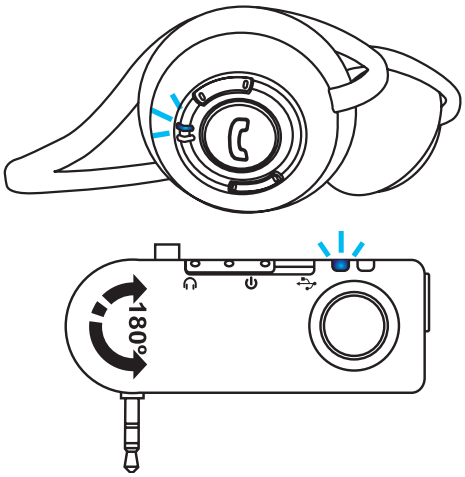
2. Set the mode switch on the transmitter to Audio.
   The link LED flashes blue.



3. Press and hold the Pair/answer button on the headset until the link LED flashes yellow.



When the link LEDs on both devices flash blue, the devices are paired.



4. Put on your headset and enjoy the music.
   (See “Adjusting the Volume” on page 24.)
   (See “Skipping Tracks” on page 24.)

	WHEN CONNECTED TO YOUR COMPUTER, THE SKIP FUNCTION ONLY WORKS WITH WINAMP™ AND WINDOWS MEDIA PLAYER™.

PAIRING THE HEADSET WITH THE IVT BLUESOLEIL PROGRAM

The IVT BlueSoleil program allows you to pair with many different Bluetooth devices such as cameras, mobile phones and headsets.

	TO LISTEN TO MUSIC ON YOUR COMPUTER WITHOUT USING THE IVT BLUESOLEIL PROGRAM. CONNECT THE TRANSMITTER TO THE AUDIO-OUT (OR HEADSET) CONNECTOR ON YOUR COMPUTER. THEN PLAY THE MUSIC FILES YOU WANT TO HEAR IN WINAMP OR WINDOWS MEDIA PLAYER.

In order to connect and share services via Bluetooth wireless technology, the two devices must support the same Bluetooth Profile(s). One device must be act as a server; the other must be the client. Refer to the IVT BlueSoleil Help utility for more information.

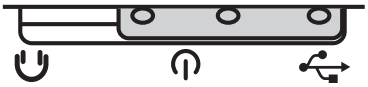
	WHEN CONNECTED TO YOUR COMPUTER, THE SKIP FUNCTION ONLY WORKS WITH WINAMP™ AND WINDOWS MEDIA PLAYER™.

Note the following when pairing with devices:

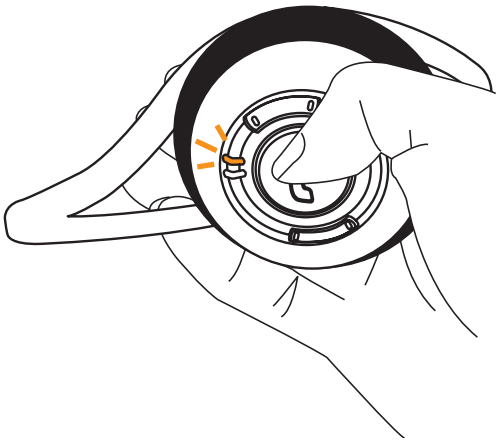
- The device must be turned on.
- The device must have sufficient battery power.
- Certain devices must be set to “discoverable” mode.

Refer to the following to pair your headset with your computer.

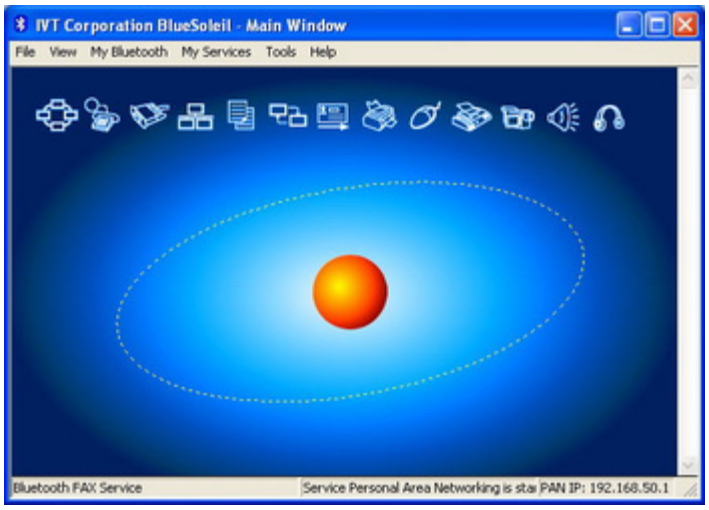
1. Connect the transmitter to a USB connector on your computer.
2. Set the Mode switch to USB.



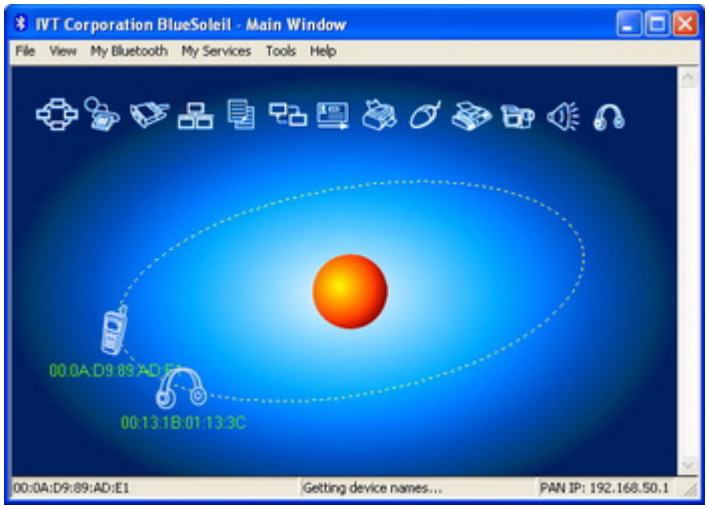
3. Press and hold the Pair/answer button on the headset until the link LED flashes yellow.



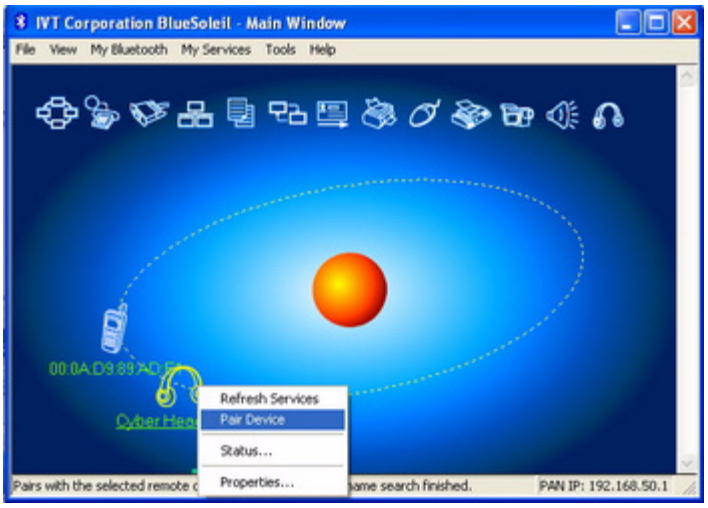
4. Click **Start -> All Programs -> IVT BlueSoleil -> BlueSoleil** to open the IVT BlueSoleil program.



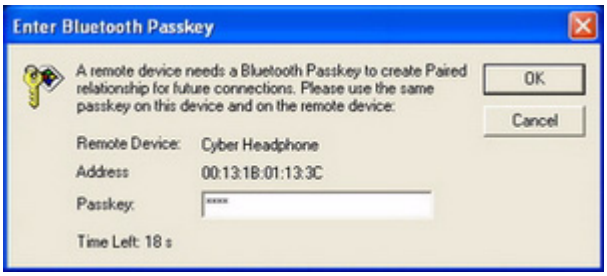
5. Click the red ball in the center of the Main Window to search for devices in range.



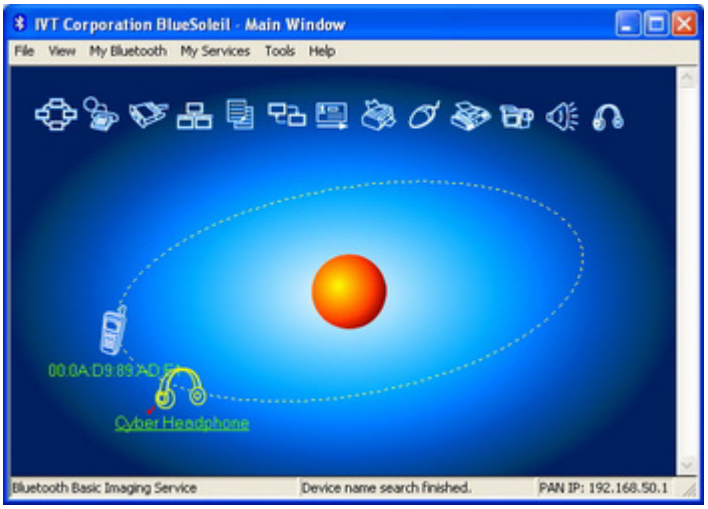
6. When your headset is detected the Cyber Headphone icon appears. (Other Bluetooth devices that are in range also appear.)



7. Right-click the **Cyber Headphone** icon and select **Pair Device**.



8. Type in the default passkey [**0000**] and click **OK**.



9. After sucessfull pairing two new services appear at the top-right of the Main Window.

USING THE HEADSET WITH YOUR COMPUTER

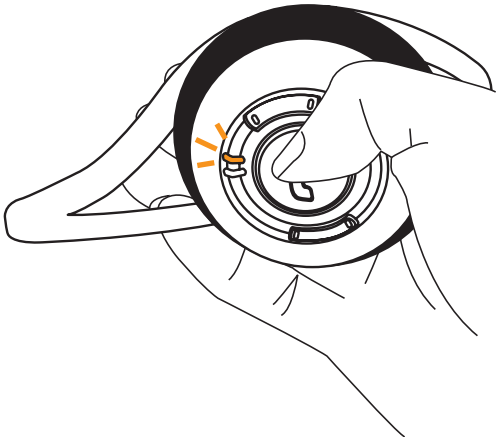
Once you have paired the headset with your computer, you can listen to music on your computer, or talk with friends using network meeting tools.

Pairing with a Bluetooth Enabled Phone

Refer to the following to pair the headset with a Bluetooth enabled phone.

	Bluetooth must be enabled on your mobile phone to use this function. Refer to your phone's user manual for instructions on enabling Bluetooth.

1. Press and hold **Pair/answer** on the headset until the link LED flashes yellow.

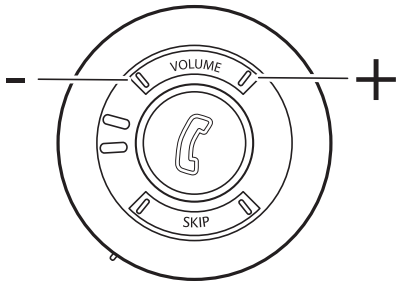


2. Scroll to Bluetooth in the menu of your phone and look for a setting such as active device.
3. Select **Cyber Headset** when it appears in the phone menu.
4. When prompted, type in the default password [**0000**].

Answering Calls

Refer to the following to answer a call.

1. When your phone rings, press **Pair/answer** ( ) on the headset.



2. Adjust the volume as you want.

3. Press **Pair/answer** to end your call.

Headset Operation

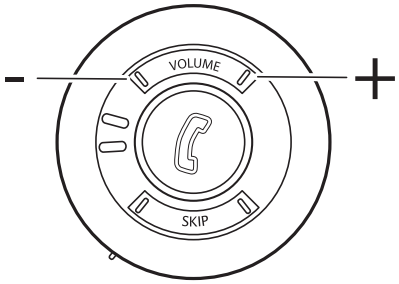
Once you have paired with a device, operating the headset is easy. You can skip tracks and adjust the volume without removing the headset.

Adjusting the Volume

Refer to the following to adjust the volume.

Press the left side of the volume button to decrease the volume.

Press the right side of the volume button to increase the volume.



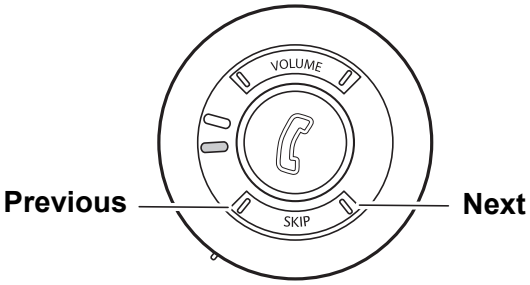
Skipping Tracks

Refer to the following to skip tracks.

	When connected to your computer, the skip function only works with Winamp and Windows Media Player.

Press the left side of the skip button to go to the previous track.

Press the right side of the skip button to go to the next track.



APPENDIX

Troubleshooting

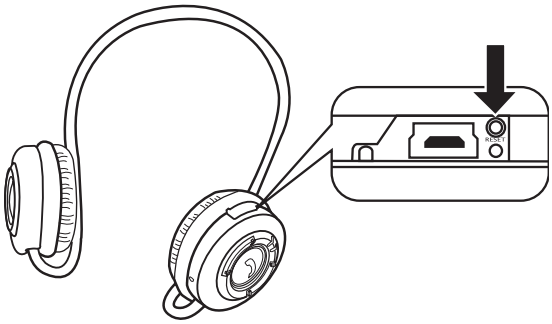
Try the following if the headset or transmitter do not work:

- Ensure connecting devices are charged.
- Unplug the transmitter from your computer and then connect it again.
- Turn off all devices and then turn them on again in the order shown in this guide.
- Ensure devices are within the 10-meter (33 feet) range.
- Ensure no obstructions such as concrete walls are between connecting devices.

If the devices are still not working after trying the above, pack the headset and transmitter in the original package and return the package to your reseller.

RESETTING THE HEADSET

If the headset hangs or does not respond, try resetting it. Open the cover of the USB connector and use a paper clip to press the reset button.



Headset and Transmitter LEDs Detailed Descriptions

HEADSET LED

Function	LED Status
Power on/off mode	Yellow quick flash interval 0.1s
Audio streaming mode	Blue slow flash interval 0.3s
Searching (pairing) channel	Yellow quick flash interval 0.1s
Connection mode	Blue slow flash interval 0.3s
Disconnection mode	Yellow Slow flash interval 0.3s
Idle mode	
Incoming-receiving mode	1. Blue quick flash interval 0.1s 2. Yellow quick flash interval 0.1s

Incoming-talking mode	Blue slow flash interval 0.3s
Outgoing-dialing mode	
Outgoing-talking mode	
Charging mode	Red LED on
Charging full mode	Green LED on

USB CONNECTOR

Function	LED Status
Power on to USB connection	No LED on
Pairing mode	Yellow LED on
Idle mode	Yellow quick flash
Connection mode	Yellow LED on
Charging mode	Red LED on
Charging full mode	Green LED on

AUDIO JACK

Function	LED Status
Power on to audio jack	Blue slow flash interval 0.1s
Pairing mode	Blue quick flash interval 0.1s
Idle mode	No LED ON
Connection mode	Blue quick flash interval 0.35s
Charging mode	Red LED on
Charging full mode	Green LED on

Available Services

You connect the transmitter to your computer through a USB connector, or to an audio out (headset) connector. The services available for each connection are shown below.

AUDIO CONNECTION

	Skype	Music	Mobile phone
Skype (headset)	—	Music and Skype voice, but no microphone	Skype stopped, transfer to mobile phone
Music (A2DP)	Music and Skype voice, but no microphone	—	Skype stopped, transfer to mobile phone
Mobile phone (talking/ standby)	Not available	Not available	—
Mobile phone (standby)	Available	Available	Available

USB CONNECTION WITH IVT BLUESOLEIL

	Skype	Music	Mobile phone
Skype (headset)	—	Mixed mono music and Skype voice	Not available

Music (A2DP)	You can hear ring tone, but you can not answer	—	Music suspends and transfers to phone. When call ended, music resumes.
Mobile phone (talking)	Not available	Not available	—
Mobile phone (standby)	Available	Available	Available

Specifications

TRANSMITTER

General Radio	Bluetooth Class 2, up to 5 ~ 10 meters (open space) Operating range depends on paired phone model, battery power, and environmental factors.
Carrier Frequency:	2.402~2.480 GHZ
Data Rate:	1 Mbps
Spread Spectrum	FHSS (Frequency Hopping Spread Spectrum)
Modulation Method	GFSK (Gaussian Frequency Shift Keying)
Multi-transfers	Maximum five different Bluetooth enabled devices (Non A2DP profile)
Auto-switching	While listening to music, you can receive or make a phone call with a paired mobile phone.
S/N Ratio	> 88 dB
Audio Format	SBC
Sensitivity	< 0.1% BER at -85 dBm
RF Output Power (Class 2)	0±4 dBm
Power Consumption	Tx Typical: 63mA Rx Typical: 68mA
Input Power	5V 500mA, AC adapter USB cable connected to computer
Weight	22 grams
Dimensions (L x W x H)	67 mm x 26 mm x 15 mm
Built-in Battery	3.7V / 370mAh / Li-Polymer, rechargeable
Battery Life	Up to 5.5 hours (factors such as distance between devices, and type of mobile phone used increase power consumption).
Dynamic Power Management	Automatic power consumption control
Operating Temperature	0 to 60 degrees centigrade
Operating Humidity	0 to 95% (non-condensing)

HEADSET

General Radio	Bluetooth Class 2, up to 5~10 meters (open space) Operating range depends on paired phone model, battery power, and environmental factors.
Carrier Frequency	2.402~2.480GHZ
Data Rate	1 Mbps
Spread Spectrum	FHSS (Frequency Hopping Spread Spectrum)
Modulation Method	GFSK (Gaussian Frequency Shift Keying)
Auto-switching	While listening to music, you can receive or make a phone call with a paired mobile phone.
S/N Ratio	> 88 dB
Interface	30 mm stereo speaker
Audio Format	SBC
Sensitivity	< 0.1% BER at -85 dBm
RF Output Power (Class 2)	0±4 dBm
Power Consumption	Tx Typical: 63mA Rx Typical: 68mA
Input Power	5V 500mA, AC adapter
Listening/talking Time	Up to 7 hours (factors such as distance between devices, and type of mobile phone used increase power consumption).
Dimensions (D x H)	54 mm x 25 mm
Weight	68 grams
I/O port	Charging: Mini-B USB Jack power adapter
Microphone	Built-in microphone for mobile phone use
Built-in Battery	3.7V / 500mAh / Li-Polymer rechargeable
Battery Life	Up to 7 hours
Dynamic Power Management	Automatically Power control for power consumption
Operating Temperature	0 to 60C
Operating Humidity	0 to 95% (non-condensing)

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.

(2) This device must accept any interference received, including interference that maycause undesired operation.

Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement: This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

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 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.

FCC RF Radiation Exposure Statement:

1. **This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.**
2. **This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure compliance requirements, avoid direct contact to the transmitting antenna during transmitting.**
3. **Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.**