Toshiba Bluetooth™ Wireless Communicator
PABWC001 Manual

CAUTION

CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE MANUFACTURER FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT

CAUTION

In order to comply with FCC radio-frequency radiation exposure guidelines for an uncontrol led exposure, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

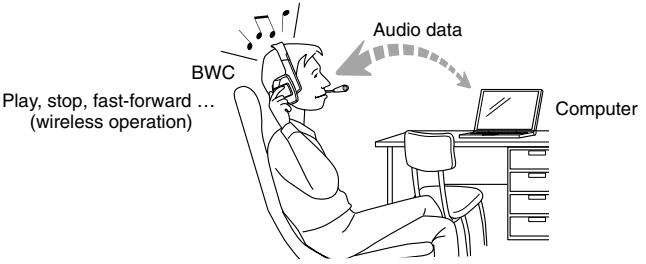
CAUTION

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.

■Main Features

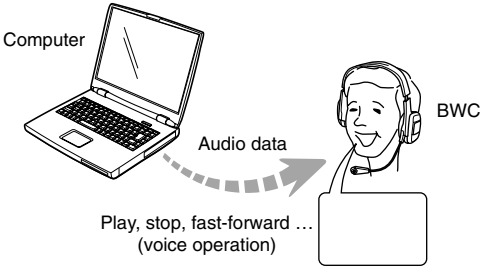
Bluetooth™ Wireless Communicator (PABWC001) is a wireless communicator using Bluetooth™ technology (and is abbreviated "BWC"). It can be used for the purposes described below through communications with other devices using Bluetooth™ technology.

1) Wireless listening to music on a computer (AUDIO mode)



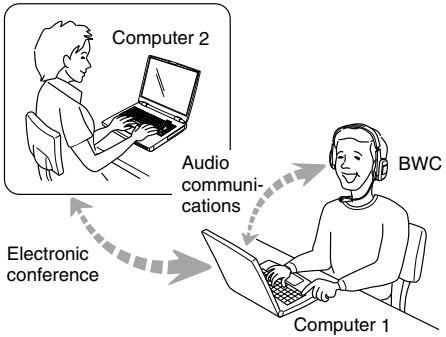
To listen to music, the audio/video playback application on the computer, to which the BWC is connected, can be operated remotely.

• Operation by voice command



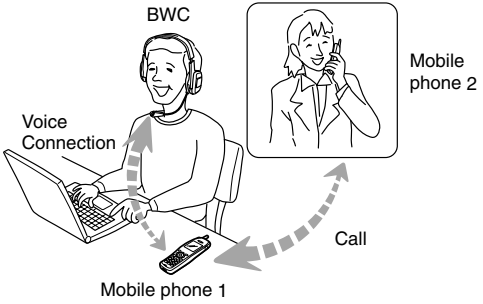
The audio/video playback application on the computer can be operated remotely by voice commands via the microphone.

2) Wireless use of electronic conference applications on a computer (COM mode)



The user can participate in electronic conferences on the computer 1 to which the BWC is connected.

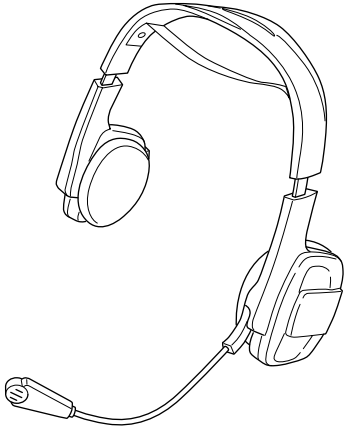
3) Wireless telephone calls received on a mobile phone



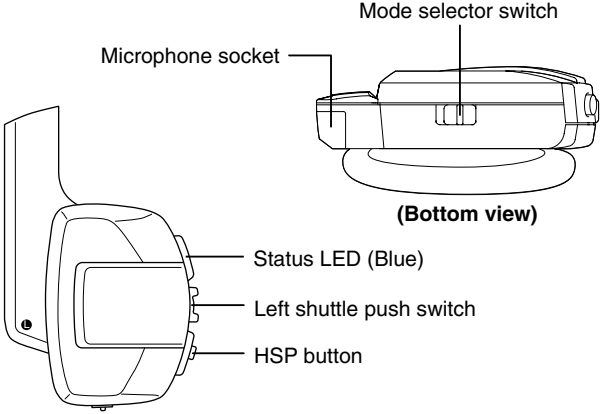
Calls placed to mobile phone 1 can be answered with the BWC.

■Names of Parts

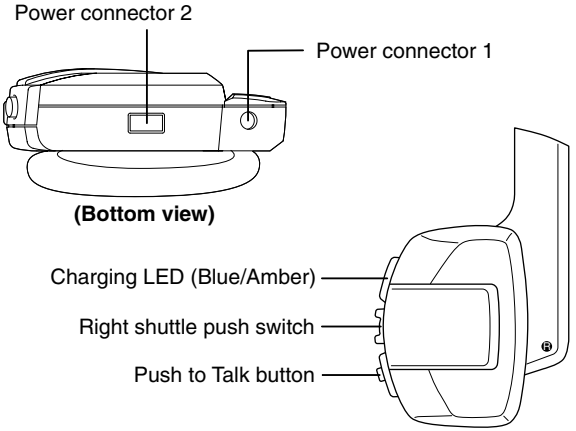
Bluetooth™ Wireless Communicator



[Left side]

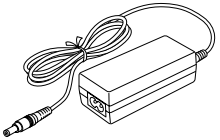


[Right side]

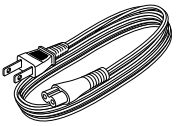


Other accessories

- AC adapter

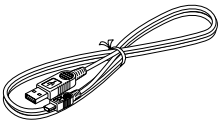


- Power cable 1



- Arm microphone

- Power cable 2



- Application software (CD-ROM)
- Manual

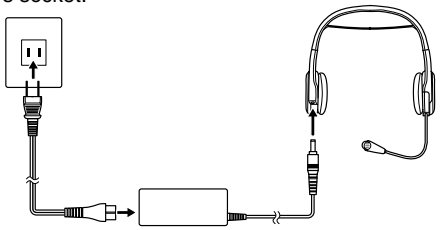
■Before Using

Charging

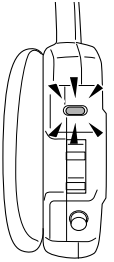
Be sure to charge the BWC before using it for the first time after purchase.
The BWC can be charged either by connecting the AC adapter or by using the included power cable 2 and connecting it to a computer, etc.

[1] Charging using the AC adapter

1) Insert the AC adapter's plug into power connector 1 on the right side of the BWC and connect the AC adapter into a main's socket.



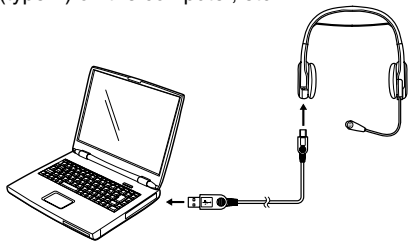
2) Check that the amber charging LED is lit.



3) Full charging requires approximately 3 hours.
When the BWC is fully charged, the amber charging LED switches off and the blue charged LED lights. To prevent overcharging, disconnect the AC adapter once charging is completed.

[2] Charging using power cable 2

1) Insert one side of the power cable 2 into the power connector 2 on the right side of the BWC, the other side into the USB port (type A) on the computer, etc.



2) Check that the amber charging LED is lit.

3) Full charging requires approximately 3 hours.
When the BWC is fully charged, the amber charging LED switches off and the blue charged LED lights. To prevent overcharging, disconnect the power cable 2 once charging is completed.

Memo: Continuous operating time with a full charge

Continuous time	Approx. 5 hours

The continuous operating time varies according to the usage environment, etc.

Note

Only use the included AC adapter to charge the BWC. Using AC adapters other than the one specified at the left could damage the BWC.
An extremely short usage time on a full charge could indicate that the built-in battery has reached the end of its service life. Contact your store of purchase or a Toshiba service centre.

Software

- Install the included CD-ROM application software on your computer: This is the Bluetooth™ connection application software required to connect the computer and BWC in the AUDIO and COM modes.

Preparing the computer

- Recommended computer types and corresponding connection applications
- For recommended audio/video playback applications, refer to the "Bluetooth™ Toshiba Utilities" on-line manual.

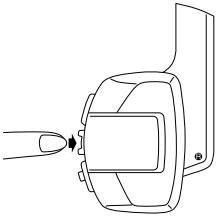
■Operation

[1] Turning the power on and off

1) Turning the power on

- Press the “POWER/STOP” right shuttle push switch till the status LED lights to turn the power on.

  When the power is turned on, the flashing of the status LED and the sounding of a beep notify the user.



2) Turning the power off

- When the BWC’s power is on, press the “POWER/STOP” right shuttle push switch for over 1 second to turn the power off.

  When the power is turned off, the status LED and the sounding of a beep notify the user.

Memo: Status LED and beep

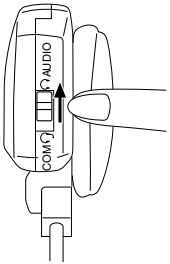
The flashing of the status LED and the sounding of the beep are simultaneous and notify the user of the operation performed by their pattern. For the types of patterns, refer to the “BWC Operation Manual”.

[2] Wireless listening to music on a computer (AUDIO mode)

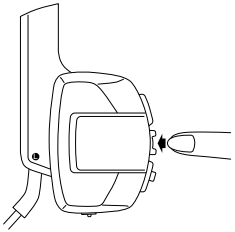
1) Before listening to music on computer using the BWC, it is necessary to connect the computer to the BWC in the AUDIO mode on the computer. If the BWC is connected to the computer in the AUDIO mode from the BWC, the BWC is connected to the last computer connected (*).

2) Press the “POWER/STOP” button to turn on the BWC’s power.

3) Set the mode selector switch to the “AUDIO” side.



4) Press the “PLAY/PAUSE” button to connect the BWC to the computer specified in step 1) above.



5) The user is notified that connection to the computer is completed by the status LED and the sounding of a beep.

* For information on operations for making connections from the computer, etc., refer to the Bluetooth™ connection application’s help file or manual.

Operation using the wireless remote control function

The wireless remote control function can be used if the Bluetooth™ connection application on the computer is compatible with AVRCP (Audio/Video Remote Control Profile). With the wireless remote control function, the music/video playback application can be operated remotely by pressing the buttons and switches on the BWC. The wireless remote control function can only be used in the AUDIO and COM modes.

Buttons/Switches and Commands

Button/switch	Description	
PLAY/PAUSE	Sends the command for playing the music/ video source currently set on the player. During playback, sends the command for pausing playback of the music/video source.	
POWER/STOP	Short press	Sends the command for stopping playback, pausing or fast-forwarding/ rewinding of the music/video source.
FWD-Skip	Short press	Sends the command for skipping to the next track/chapter.
	Long press	Sends the command for starting fast-forwarding of the music/video source.
BWD-Skip	Short press	Sends the command for skipping back to the previous track/chapter or the beginning of the currently playing track/ chapter.
	Long press	Sends the command for starting rewinding of the music/video source.
volume [+]	Increases the volume level 1 step.	
volume [–]	Decreases the volume level 1 step.	

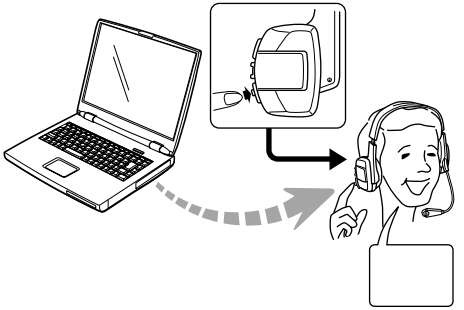
* Long press: Press for over 0.5 second.

Memo: Cautions on using the wireless remote control function

- Operation is only guaranteed for the recommended applications.
- Depending on the status of the computer or application, the commands may not be accepted.

Operation by voice command input

In the AUDIO mode only, the music/video playback application can be operated by voice input via the microphone.
To input voice commands, press the “Push to Talk” button and say the voice command keywords shown on the table below.

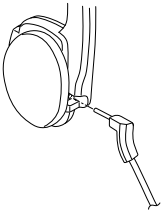


When the input voice command is recognized, the operation corresponding to that voice command is performed on the computer’s music/video playback application, and the user is notified by the status LED and beep in the same way as when operating by wireless remote control.

Voice Commands and Keywords

Voice Commands	Keywords (substitutes)
PLAY	play
STOP	stop
PAUSE	pause
FORWARD	forward (next)
BACKWARD	backward
FAST-FORWARD	fast-forward
REWIND	rewind
VOLUME-UP	volume up
VOLUME-DOWN	volume down
MUTE	mute
MUTE-RESET	mute reset
UP	up (cursor up)
DOWN	down (cursor down)
LEFT	left (cursor left)
RIGHT	right (cursor right)
SELECT	select
MENU	menu
ANGLE	angle
CONNECT	connect

Memo: Cautions on using voice commands



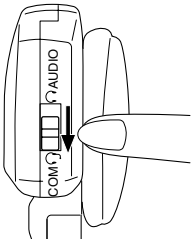
- Connect the included “arm microphone” to the microphone socket on the BWC when using the voice command input function.
- The music cannot be heard while the voice recognition operation is being performed.
- The usable commands are limited when the BWC is not connected to the computer (only the “connect”, “volume” and “mute” commands can be used).
- The “up”, “down”, “left”, “right”, “select” and “menu” commands are exclusively for DVD sources.
- The “angle” command is only valid for DVD sources with multiple angles.
- The “fast-forward” and “rewind” commands may not be usable with applications other than WinDVD®.

[3] Using the computer's electronic conference (COM mode)

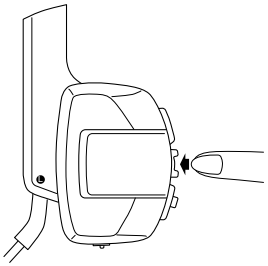
1) Before using these functions, it is necessary to connect the computer to the BWC in the COM mode on the conputer. If the BWC is connected to the conputer in the COM mode from the BWC, the BWC is connected to the last computer connected. (*).

2) Press the "POWER/STOP" button to turn on the BWC's power.

3) Set the mode selector switch to the "COM" side.



4) Press the "PLAY/PAUSE" button to connect the BWC to the computer specified in step 1) above.



5) The user is notified that connection to the computer is completed by the status LED and the sounding of a beep.

6) When an electronic conference application (Windows® NetMeeting® for example) is used to connect to the other party's computer, you can communicate with the other party over the BWC (wireless).

* For details, refer to the Bluetooth™ connection application's help file or manual.

Memo: Cautions on using the COM mode

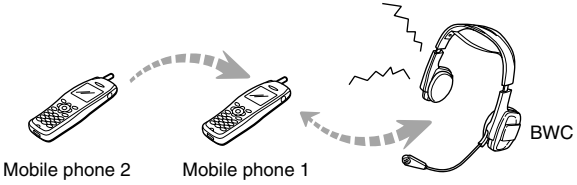
- Some recommended applications for use in the COM mode are "Toshiba LaLaVoice2001" and "Windows® NetMeeting®".
- As in the AUDIO mode, music/video playback applications can be operated remotely using the wireless remote control function.
- Voice commands cannot be used. Use the "Push to Talk" button to switch the microphone on and off.

[4] Wireless communications for calls received on a mobile phone

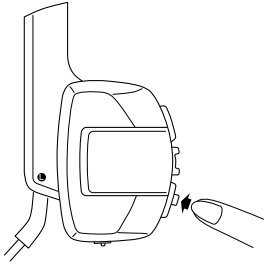
1) Before using this function, settings must be made on the mobile phone to set the BWC as the HSP (Headset Profile) connection device for Bluetooth™ connections (*).

2) Press the "POWER/STOP" button to turn on the BWC's power.

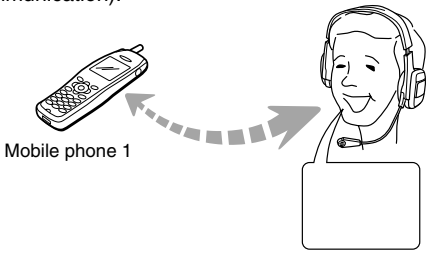
3) When a call is received on the preset mobile phone, a connection request (beep) is sounded on the BWC.



4) Press the “HSP” button while the connection request (beep) is being sounded to accept the connection request.



5) Once the connection to the mobile phone is completed, you can talk to the phone caller over the BWC (wireless voice communication).



6) During a telephone conversation, the call can be disconnected by pressing the “HSP” button.

* For details on Bluetooth™ connection settings, refer to the mobile phone’s manual.

Memo: Connection request

The connection request beep may be heard when connecting from a computer in either the AUDIO or COM mode or when connecting from a mobile phone.
The connection can be accepted by switching the mode selector switch to the opposite side in the AUDIO or COM mode or by pressing the “HSP” button for connection request from the mobile phone.

■Other Cautions

Auto power off

- To save battery power, the power automatically turns off if there is no access for 60 seconds.
  The auto power off function is not activated when the BWC is connected to a computer or mobile phone.

PIN code

- Set the “non-secure mode” when connecting the BWC to a product of a maker other than Toshiba.

The connection request beep from the mobile phone may sound while the BWC is connected in the AUDIO or COM mode.

When the connection request beep sounds, the sound in the AUDIO or COM mode cannot be heard, and in the COM mode voice input via the microphone is not possible.

■Troubleshooting

Symptom	Cause	Remedy
Power is not turned on	• Battery power is weak.	• Charge the battery.
	• “POWER/STOP” button has not been pressed long enough.	• Press the button for at least 1 second.
No sound can be heard from the BWC	• Music/video playback application on connected computer is not playing.	• Set the playback mode on the computer.
	• No DVD, audio source, etc., is set for playback.	• Set the source to be played with the music/ video playback application on the computer.
BWC cannot be connected to computer	• Computer’s power is off.	• Turn the computer’s power on.
	• Computer has never been connected to BWC from the computer.	• Use the Toshiba connection application and connect the computer and BWC by performing the necessary operations on the computer.
	• Normal communications are not possible if there is an obstacle between the BWC and computer, if the BWC and computer are too far apart, etc.	• Remove the obstacle between the computer and BWC or change their positions to eliminate the problem.
	• Toshiba connection application is not installed on the computer or it is disabled.	• Install or activate the Toshiba connection application.

Symptom	Cause	Remedy
	• BWC is connected to a different computer.	• Use the Toshiba connection application and connect the desired computer and the BWC by performing the necessary operations on the computer.
Music being played on computer cannot be heard	• Connection is interrupted.	• Connect.
	• Volume is set to minimum.	• Raise the volume.
	• Computer's output volume is set to minimum or muted.	• Raise the output volume on the computer or cancel the mute mode.
Connection is lost	• Normal communications are not possible if there is an obstacle between the BWC and computer, if the BWC and computer are too far apart, etc.	• Remove the obstacle between the computer and BWC or change their positions to eliminate the problem.
	• "POWER/STOP" button has been pressed, or mode selector switch has been switched.	• Be careful not to switch the mode selector switch or press the "POWER/STOP" button during playback.
Connection with mobile phone cannot be established	• Mobile phone's power is turned off.	• Turn the mobile phone's power on.
	• BWC is not set as the HSP connection device on the mobile phone.	• Perform the necessary operations on the mobile phone to set the BWC as the HSP connection device.

Symptom	Cause	Remedy
Sound is noisy, distorted or broken	• Output volume of connected computer is too high or too low.	• Adjust the output volume.
	• BWC and computer (or mobile phone) are too far apart.	• Move the BWC and computer (or mobile phone) closer together.
	• High load process is being performed on the computer.	• Quit unnecessary applications.
	• Another Bluetooth™ device is connected to the computer.	• Cancel the connection to the other Bluetooth™ device.
Voice commands are not recognized	• Mode selector switch set to the “AUDIO” side.	• Set the mode selector switch to the “AUDIO” side.
	• BWC is connected to the mobile phone.	• Connect the BWC to the computer in the AUDIO mode.
	• Voice is too weak.	• Pronounce the command’s keyword loud and clear.
	• There is too much surrounding noise.	• To avoid erroneous operation, use in a place with little noise.
	• You are speaking before pressing the “Push to Talk” button.	• Speak after pressing the “Push to Talk” button.
	• Microphone is not properly connected or you are using the short arm microphone.	• Check that the microphone’s plug is securely connected to the microphone socket and is fully inserted. • Use the long arm microphone for inputting voice commands.

Symptom	Cause	Remedy
	• Your mouth is too close to the microphone.	• Move your mouth a little away from the microphone.
Probrems on a TV or radio	• There is signal interference between the BWC and TV or radio.	• Change the direction of the BWC with respect to the TV or radio. • Move the BWC away from the TV or radio. • Replace the TV's balanced feeder cable with a coaxial cable.

■Main Specifications

Frequency range used
2.4GHz (2402-2480MHz)

Main unit
Interface: Bluetooth™ V1.1
Communications method: ACL, SCO link
Max. transfer speed: Approx. 700 kbps
Output: -3.6dBm
Input sensitivity (*1): -84dBm
Communications distance: Approx.10 metres (unobstructed distance) (*2)
Profiles
- GAP (Generic Access Profile)
- A2DP (Advanced Audio Distribution Profile)
- AVRCP (Audio/Video Remote Control Profile)
- GAVDP (Generic Audio/Video Distribution Profile)
- HSP (Headset Profile)

Audio codec: SBC
COM mode codec: μ -law
Mobile phone communications codec: CVSD
Power supply: Built-in battery (lithium ion battery)
Operating time: Approx. 5 hours (continuous connection)
External dimensions: 205 mm x 180 mm x 70 mm
Weight: Approx. 200 g
External interface:
Surrounding conditions:
- Temperature (during operation): +5 to +35°C
- Temperature (during storage): -20 to +60°C
- Humidity (during operation): 8 to 90% RH (no condensation)
- Humidity (during storage): 8 to 90% RH (no condensation)

*1: Differs according to surrounding radio wave environment, presence of obstacles, installation environment, etc.