BluePOD Conference Mate

Bluetooth® Audio Conference System

BLUE POD

WILLIAMS**AV**

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Safety Warnings and Instructions

WARNING! TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION! TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

POWER CORD NOTICE FOR INTERNATIONAL OPERATION - Please call Williams AV Customer Service at 800.328.6190 to order the appropriate power cord for the country of use.

Important Safety Instructions:

1. Read these instructions
2. Keep these instructions
3. Heed all warnings
4. Follow all instructions
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel.
14. The apparatus shall not be exposed to liquids.
15. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the appliance and cart combination to overturn.
16. Wall or Ceiling Mounting - The Bluetooth Wireless Access Point (B-WAP) should be mounted to a wall or ceiling only as recommended by the manufacturer. The Controller may also be mounted or placed on a table.
17. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
18. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through the openings.
19. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Precautions:

1. Power – WARNING, BEFORE TURNING ON THE POWER FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY. The unit is designed for use only with the line cord of the region in which it will be operated.
2. Voltage Label (Rear Panel) – A label located at the rear panel power connection indicates the DC power input for the unit. The label will read DC 24V. Note: use the Williams AV TFP 059 power supply for this unit.
3. Do Not Plug in the input, output, Ethernet, or USB connections while the power switch is switched to the ON position.

4. Do Not Touch any part of the BluePOD system with wet hands. Do not handle any part of BluePOD system, including the power cord, when your hands are wet or damp. If water or any other liquid enters the BluePOD system's or system's location, take the full BluePOD system to qualified service personnel for inspection.

5. Place all components of the BluePOD system in a well, ventilated location. Take special care to provide plenty of ventilation on all sides of the BluePOD system components, especially when it is placed in a small location, such as a rack. If ventilation is blocked, the BluePOD system may over heat and malfunction.

6. Do not expose the BluePOD system to direct sun light or heating units as the BluePOD system's internal components temperature may rise and shorten the life of the components. Avoid damp and dusty places.

7. Care – From time to time you should wipe off the front and side panels and the cabinet with a soft cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since this may damage the finish or remove the panel graphics.

Recycling Instructions

Help Williams AV protect the environment. Please take the time to dispose of your equipment properly.

Product Recycling for Customers in the European Union:

Please do NOT dispose of your equipment in the household trash. Take the equipment to a electronics recycling center, or return the product to the factory for proper disposal.

Appearance Differences

Some versions of the BluePOD may have differences in appearance. These appearance changes do not affect functionality.

Figure 1: The Rear of the BluePOD Controller with Bluetooth POD Port

Note: Instead of Bluetooth POD, most models have the label B-WAP. This is only a change in labeling.
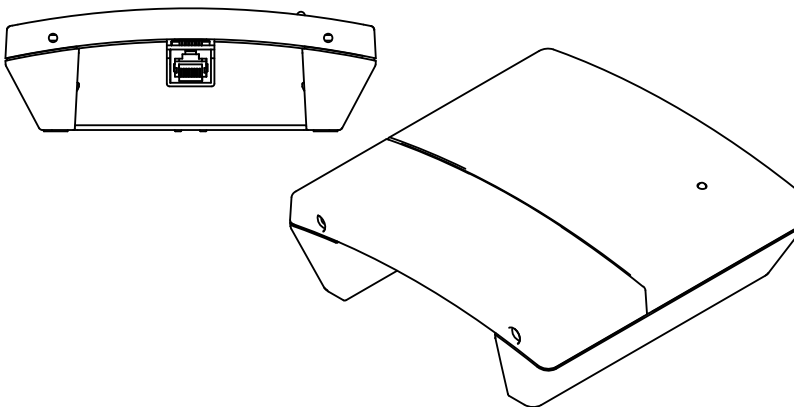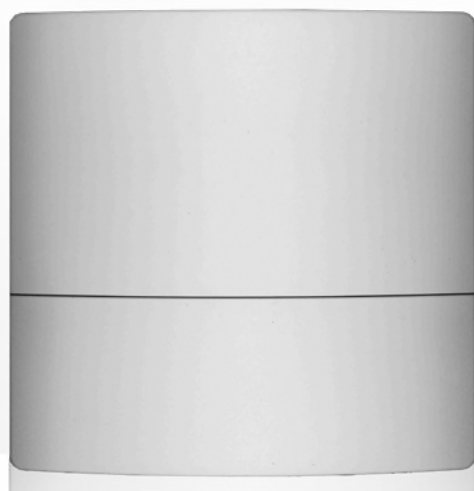

Figure 2: Alternative, larger B-WAP model

System Overview

The BluePOD Conference Mate is a Bluetooth® audio conference system designed to simplify making conference calls in your meeting rooms with your mobile phone, laptop or other Bluetooth device. With BluePOD system, making a conference call is as simple as tapping the Bluetooth connect button on your phone or laptop; no special software is needed. Adjusting the volume, muting and connecting is all done on your phone, just like you do it now.

The BluePOD Conference Mate allows you send professional grade audio to the speakers and microphones you want to use. The system is designed for easy integration into larger and/or existing audio system projects. It features an integrated mixer with DSP functions, including Acoustic Echo Cancellation (AEC). The mixer includes four inputs (two mic/two line), two line outputs and two 25-watt amplifiers.

Microphones, speakers and other accessories are connected to the back of **BluePOD Controller.** The BluePOD Controller can be stored in a convenient, out of the way location, whether that is in an entertainment system or elsewhere inside the conference room.
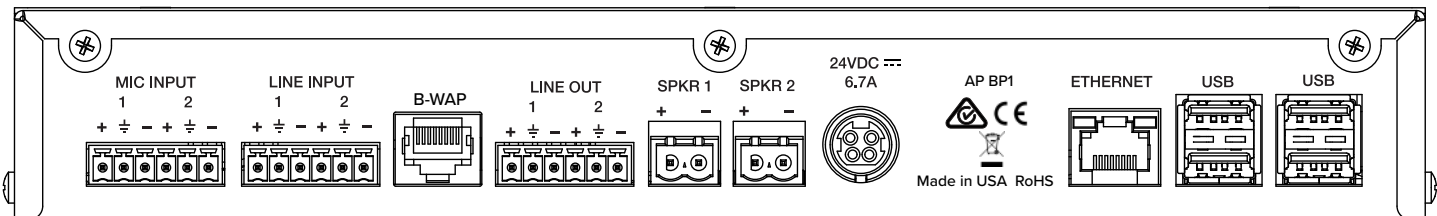

Figure 2: Diagram of Back Panel of Controller

An excellent Bluetooth connection is made possible with the **Bluetooth Wireless Access Point (B-WAP).** The B-WAP is a separate device from the BluePOD Controller and functions as a transceiver. The B-WAP is installed on the ceiling or convenient location in the conference room, just like any other wireless access point. The B-WAP broadcasts a strong Bluetooth signal where conference attendees are sitting, eliminating any signal interference between the conference area and the BluePOD Controller. The B-WAP is connected to the BluePOD Controller via a CAT5 or CAT6 cable.

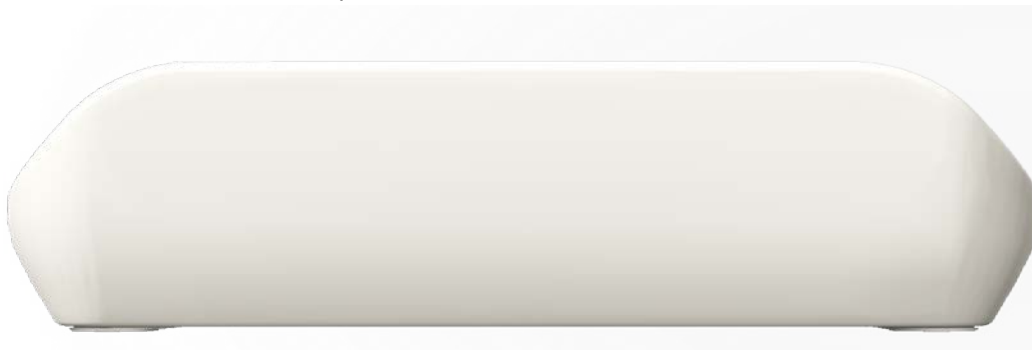Note: A CAT6 cable is recommended whenever possible.

Figure 3: The Bluetooth Wireless Access Point (B-WAP)

System Options

- SPK 035 Ceiling Speaker
- MIC 104

Installation Procedures

Setting up the BluePOD Conference Mate will allow you to broadcast Bluetooth audio to your conference room speakers, as well as mix in microphones, music and other audio.

Physical Installation

The two components of the BluePOD system--the Controller and the Bluetooth Wireless Access Point (B-WAP)-- will need to be physically installed within the room.

Controller

The BluePOD Controller will need to be installed in a safe location within the room where the device will be used.

The power supply will need to be attached to the Controller and plugged into a power source.

Bluetooth Wireless Access Point (B-WAP)

Williams AV recommends that the B-WAP is installed on the ceiling near the center of the room, preferably above where the BluePOD system will be most frequently used. Other locations may work, such as on a wall. The B-WAP's Bluetooth signal has up to a 50 ft (15.24 m) radius, which should adequately provide coverage for most rooms.

⚠ Caution: A 20 CM separation distance must be maintained between the B-WAP and the user's body at all times. Do not install the B-WAP where this distance is not feasible.

The B-WAP will be connected to the Controller via a CAT6 cable. The maximum efficient length of the CAT6 cable is about 100 ft (31 m), and longer cables may cause a drop in signal or audio quality.

The CAT6 cable should be connected from the RJ45 port on the back of the B-WAP into the B-WAP port on the back of the Controller.

Note: Do not connect the B-WAP to the Ethernet port on the Controller - only connect it to the B-WAP port.

Note: On some models of the BluePOD, the B-WAP port may be labeled Bluetooth POD.

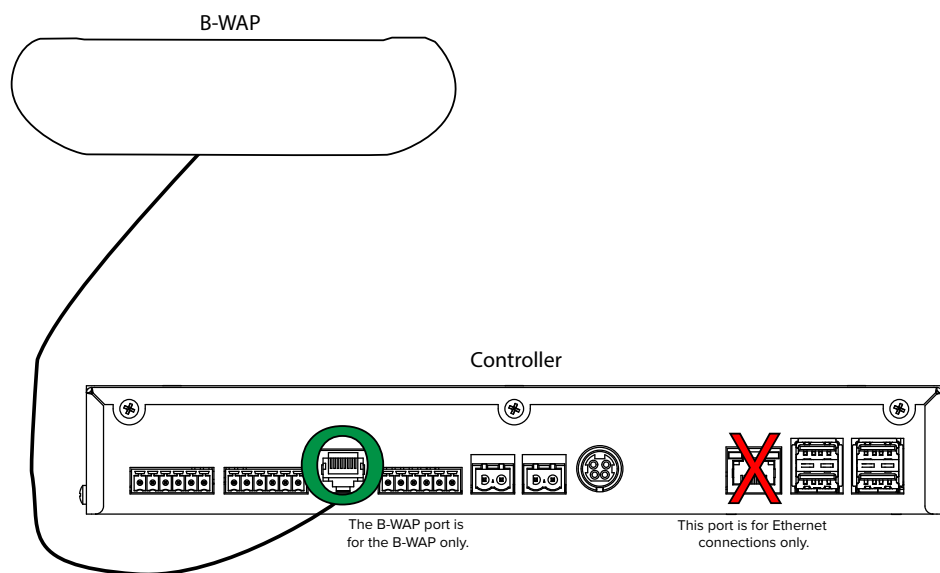The B-WAP is powered via the CAT 6 cable and requires no other connections.

Figure 4: The B-WAP connects to the Controller via the B-WAP port.

Speakers, Microphones and Other Components

Most 4 or 8Ω speakers, 48V phantom microphones or other sound components can be used with the BluePOD system - there is no need for a specific sound system configuration.

The BluePOD system automatically provides Acoustic Echo Cancellation (AEC) for microphone connections. This feature cannot be disabled and does not apply to line input sources.

Phoenix style connectors are available on the back of the BluePOD Controller, with specific labels for the type of input.

There are two speaker connection ports and 4 USB ports also available on the Controller.

⚠ Caution: Do not plug in or unplug microphones while the BluePOD is powered on. Unplugging or plugging in microphones while the device is on may damage equipment.

Line Level Source (Phoenix style connectors)

The BluePOD Controller will accept line level balanced or unbalanced audio inputs. Connect your audio source(s) to the appropriate Phoenix style connectors. No adjustments need to be made for balanced or unbalanced inputs; this is internally detected & managed. See illustrations for balanced and unbalanced cable configurations.
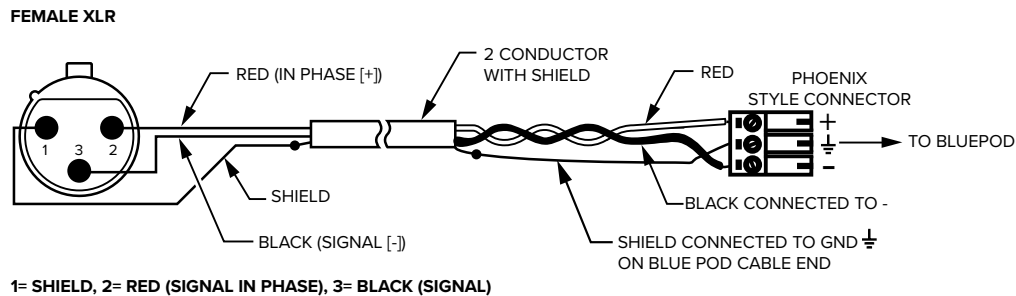
Figure 5: Balanced line out (XLR) to Controller line input (Phoenix style connector)
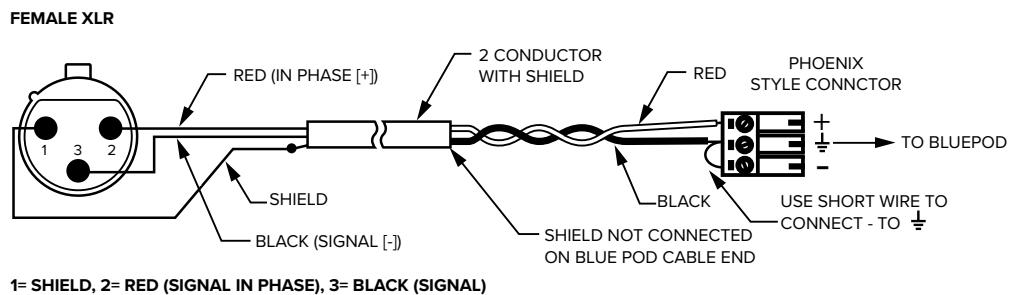
Figure 6: Unbalanced line out (XLR) to Controller line input (Phoenix style connector)

Summing an unbalanced stereo line-level source to a single mono input

If using a stereo source for an input, the stereo signal will be combined to mono, and heard in mono, on the A or B channel of the BluePOD Controller.

The + and - Phoenix style terminals are *each tied internally to single differential amplifiers.*

Proper Wiring (See yes circle): The resistors, along with the jumper between - and ground, are necessary to allow the left and right signals to be summed before being preamplified by the *single differential (single-ended) amplifier inside the BluePOD Controller.*

Improper Wiring (See no circle): If the left and right positive leads from the source were connected to the + and - pins on the Phoenix style connector, and their grounds (shields) were connected to the ground terminal, the result would be the *difference* of the left and right channels. The main part of the audio signal (what is common to both the left and right channels) would be missing, as this is thrown away during *differential amplification*. The difference is *very little*, resulting in a very low input signal. In this case, most of the original audio would not be heard!
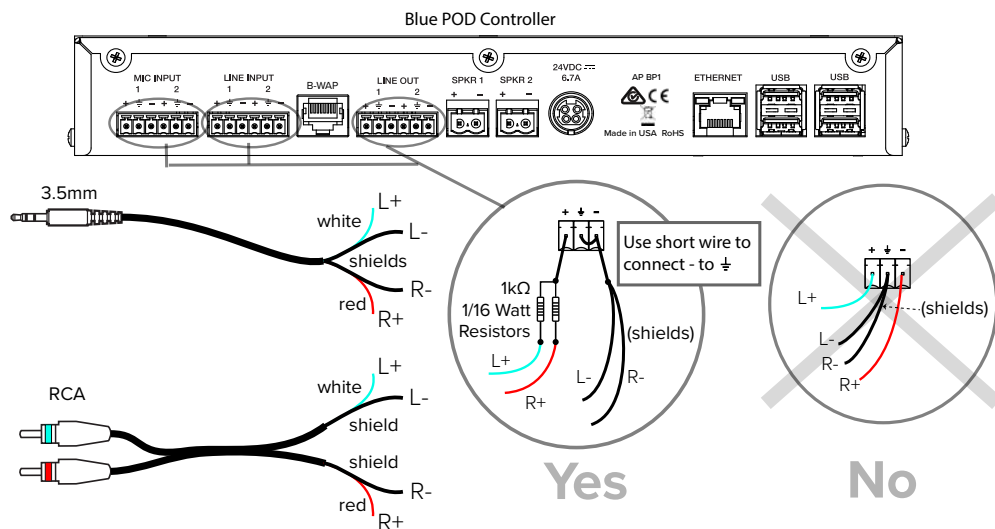

Figure 7: Improper and Proper Wiring

Dante Devices
Dante devices are not directly compatible with the BluePOD system; however, a Dante mixer can be attached to the BluePOD Controller, with any other Dante devices connected to the mixer. The BluePOD system will then treat the mixer like any other audio source.

Personal Devices
Personal devices do not require any special set up in order to be used; personal devices only need to make a Bluetooth connection to the BluePOD system. For further instructions on establishing a Bluetooth connection, see "Connecting your Personal Device" on page 11.

Network Setup
A network connection is required to use the settings menu. The network connection must be hardwired, and cannot be done over a wireless network connection.

Note: A DHCP connection is required for the initial setup of the device, although a static address can be assigned later.

1. Plug an Ethernet cable into the back of the BluePOD Controller.

2. The network system will use DHCP to automatically assign an IP address to the BluePOD system.

3. Configure additional network information by using the Network Settings menu (See "Network Settings" on page 9 and the "Finding Your Device on the Network" section below.)

Finding Your Device on the Network

When a BluePOD system is set up on the network correctly, the Bluetooth connection name will include network information.

1. Use a personal device with Bluetooth functionality to look at the list of available Bluetooth connections.

2. The BluePOD Bluetooth connection will be named similar to **BluePOD-[ABCD] [IP Address]**. For example, *BluePOD-3AB7 100.62.50.202* may be the connection name displayed.

3. The last section of the connection name is the IP Address. The middle section is the last 4 characters of the BluePOD's MAC address.

If the information in the connection name appears to be incorrect, you may need to run the Restore Bluetooth command to update the connection information. See"System Settings" on page 10 for more information.

4. Use the IP address or MAC address to find the device on your network. Use the Network Settings menu to adjust the network details further. (See "Network Settings" on page 9).

Adjusting Settings From the Browser

Sound, network, and other settings can be adjusted from any web browser. The computer will need to be connected to the same network as your BluePOD system.

Enter the IP address of the BluePOD system into your browser to access the menu system.

Network Settings

When first connected to the network, an IP address will be automatically assigned.

The IP Address, and other network settings can be adjusted from the Network settings menu, including setting a static IP address.

Under **Type**, select whether your device is using DHCP or static network management.

If you are using a static configuration, enter the correct information for each field then hit the **Enter** button.

Once finished editing all network information, press the **Apply Settings** button.

Figure 8: The Network Settings Menu

Audio Settings

Settings for audio input and output can be adjusted from the Audio Settings menu.

The volume of inputs and outputs can be adjust to a higher or lower level. Drag the slider to the desired level.

Click on the name for each slider to turn it on or off. The status will be displayed below the name.

The mic gain for microphone 1 and microphone 2 are adjusted using the radio buttons in the mic gain section. The numbers refer to the decibel increase in gain.

1 - 30 dB
2 - 40 dB
3 - 50 dB
4 - 60 dB

Under the other menu, select 4 or 8 Ω for the speakers.

Figure 9: The Audio Settings Menu

System Settings

System settings are used for system maintenance. Updates, Bluetooth timeout and setting restoration are handled via this menu.

Restore Bluetooth

If the BluePOD system is being moved to another network, and the hostname is not displaying the correct IP address, clicking the Restore Bluetooth button will rename the hostname to include the updated IP address. This will let the user see the correct IP address when they create a Bluetooth connection from their personal device.

Alternatively, plugging a keyboard into the USB ports on the back of the device, and pressing **alt+q** will work similarly to pressing the Restore Bluetooth button from a browser. This may be necessary if the old IP address is unavailable.

For more information on setting up the network, see "Network Setup" on page 8.

Bluetooth Timeout

The Bluetooth Timeout will end the Bluetooth connection if there has been no sound after a set amount of time has passed. Use the radio buttons to select the amount of time you'd like the connection to last when no audio is being sent through the system.
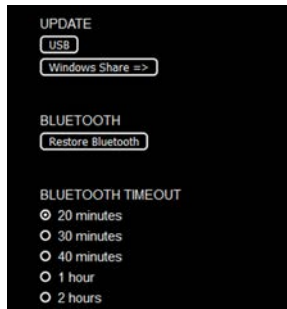
Figure 10: The System Settings Menu

Updating the BluePOD System

Update files are sent to the BluePOD system via USB or Windows Share, and provide new features, improve functionality or bug fixes.

NOTE: The BluePOD system must be connected to the internet to update, even when updating from a USB device.

Before activating the Update command, the update file must be copied into a directory on the flash drive or Windows Share location called **BIIUPG**. Create this directory directly under the main (Root) directory. It cannot be inside any other folder. Ensure there is an internet connection to the BluePOD system before starting the update.

1. Before activating the Update command, the update file must be copied into a directory on a USB flash drive or in Windows Share location named BIIUPG. You must **create the BIIUPG directory in the root directory.**

2. Activate the menu system. The Main Menu appears.

3. Select **USB or Windows Share**, depending on where you have placed the update file. The screen will display various information as the update takes place.

NOTE: Do not shut off the device, remove the update file, or restrict access to the update file until the update is finished.

4. The BluePOD system will restart itself. The system will start up using the new firmware.

Connecting your Personal Device

To connect your phone or other personal device to the BluePOD system, follow the instructions from your device manufacturer to establish a Bluetooth connection. These instructions will differ per device.

The BluePOD will be listed as an available device. Ask your IT administrator the correct name of your BluePOD Bluetooth network connection. The default connection name could have been renamed via the Network Settings menu ("Network Settings" on page 9).

Only one Bluetooth device can be connected to the BluePOD system at a time. Additional sound sources will need to be connected via hardwired connections.

Disconnecting your Personal Device

The BluePOD system will not remember device connections once an audio broadcast has ended. The next time you use the BluePOD system again, you will need to reconnect your device.

Phone calls will automatically be disconnected once the call has ended, preventing unwanted and unexpected audio broadcasts from private phone calls or other potential issues.

A timeout can be set up to disconnect all devices after a specified amount of time in silence has passed. See "System Settings" on page 10 for more information.

Streaming music or other audio will not be automatically disconnected unless the timeout it hit.

To manually disconnect devices from the BluePOD, follow the instructions for your personal device to shut off a Bluetooth connection.

Specifications

BluePOD Controller and Bluetooth Wireless Access Point

Dimensions:	10" W (254 mm) x 7.5" D (190.5 mm) x 1.75" H (44.5 mm)
Weight:	2.75 lb (1.25 kg)
Power Supply:	Input: AC Power Plug is IEC 320-C14. Output: 24VDC @ 6.7A to DIN Plug.
Power Switch:	Push on/ push off latching. Backlit red LED indicates power on.
Bluetooth Wireless Access Point:	Bluetooth 4.2 with aptX HD Support; Connect with CAT5 or CAT6 cable
Bluetooth Wireless Access Point Chassis:	Wall mount type, molded plastic, white (beige) top, some models have a grey bottom
Controller Chassis:	Desktop type, black, metal with white and red legends on front, white legends on back.
Inputs:	Microphone or Line inputs accept balanced or unbalanced analog signals (10VRMS max.) at a 6 position Phoenix style connector with +, gnd, and - connections. Both microphone inputs have a +48VDC phantom supply at pins + and - to gnd.
USB:	(4) Type A USB Receptacle, USB 1.1, 2.0 or 3.0 Supported
Microphone:	48v Phantom Microphone (not included) Williams AV recommend microphone is Audio-Technica Pro 44 Boundary microphone (or equivalent).
Network:	Network access with browser; connect to IP address over Ethernet (RJ45, 10/100/1000 Mbsp) network.
User Access:	Mixer controls include volume, mute, etc. are accessible via browser menu.
Bluetooth Range:	50 ft radius (15.24 m)
Outputs:	The line output is a balanced or unbalanced analog signal at a 6 position Phoenix style connector with +, gnd, and - connections.
Speaker:	Speaker output (2x) has a 25 watts/channel class D amplifier output impedance is selectable at 8Ω or 4Ω. Each channel output is a 2 position Phoenix style connector with a + and - connection.
Integrated Mixer:	(2) mic inputs, (2) line inputs and (2) line outputs; (4) USB inputs and (2) speaker outputs. Acoustic Echo Cancellation (AEC) is placed between both microphone inputs and speaker outputs.
Operating Environment:	32ºF to 104ºF (0ºC to 40ºC) with 0-90% relative humidity. Storage: -40ºF to 150ºF (-40ºC to 65ºC)
Warranty:	2-year part and labor
Approvals:	CE, FCC, Industry Canada, RoHS2, WEEE, RCM, PSE, Safety Certifications (Pending)

NOTE: Specifications subject to change without notice.
Visit our website for the latest specifications and publications: www.williamsav.com

Regulatory Statements

⚠ Caution: Unauthorized modifications or changes not expressly approved by Williams AV could void compliance with regulatory rules, and thereby your authority to use this equipment.

⚠ Caution: A 20 CM separation distance must be maintained between the Bluetooth Wireless Access Point and the user's body at all times.

United States - FCC

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.

Canada IC

This device complies with Industry Canada license-exempt RSS standard(s). 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Japanese Regulatory Standards

この装置は、クラスA機器です。この装置を住宅環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。 VCCI-A

This is a Class A equipment. Operation of this equipment in a residential environment could cause radio interference. In such a case, the user may be required to take corrective actions. VCCI-A

Ⓡ **077-AF0022**

2 Year Warranty

Williams AV products are engineered, designed, and manufactured under carefully controlled conditions to provide you with many years of reliable service.

Williams AV warrants the BluePOD Controller and Bluetooth Wireless Access Point (B-WAP) against defects in materials and workmanship under normal use and conditions for 2 years from date of purchase.

This warranty is available to the original end purchaser of the product and CAN BE transferred to subsequent purchasers of the product.

Microphones, earphones, headphones, batteries, chargers, cables, carry cases, and most other accessory products carry a 90-day warranty.

Williams AV has no control over the conditions under which this product is used. Williams AV, therefore, disclaims all warranties not set forth above, both express and implied, with respect to the BluePOD system, including but not limited to, any implied warranty of merchantability or fitness of use of such equipment including, without limitation, any warranty that the use of such equipment for any purpose will comply with applicable laws and regulations. Williams AV shall not be liable to any person or entity for any medical expenses or any direct, incidental or consequential damages caused by any use, defect, failure or malfunctioning of the product, whether a claim for such damages is based upon warranty, contract, tort or otherwise. The sole remedy for any defect, failure or malfunction of the products is replacement of the product. No person has any authority to bind Williams AV to any representation or warranty with respect to the BluePOD. Unauthorized repairs or modifications will void the warranty. This warranty is void if damage occurred because of misuse, or if the product has been repaired or modified by anyone other than a factory authorized service technician. Warranty does not cover normal wear and tear on the product or any other physical damage unless the damage was the result of a manufacturing defect. Williams AV is not liable for consequential damages due to any failure of equipment to perform as intended. Williams AV shall bear no responsibility or obligation with respect to the manner of use of any equipment sold by it.

This warranty does not cover reimbursement for your costs of removing and transporting the product for warranty service evaluation or installation of any replacement product provided under this warranty.

The exclusions and limitations set out above are not intended to, and should not be construed so as to contravene mandatory provisions of applicable law. If any part or term of this Disclaimer of Warranty is held to be illegal, unenforceable, or in conflict with applicable law by a court of competent jurisdiction, the validity of the remaining portions of this Disclaimer of Warranty shall not be affected, and all rights and obligations shall be construed and enforced as if this Limited Warranty did not contain the particular part or term held to be invalid. The terms of the warranty are governed by the laws of the State of Minnesota.

Prices and the specifications of the products are subject to change without notice.

*For Complete Warranty Statement go to: www.williamsav.com/warranty-statement

NOTICE: Williams AV products are NOT designed for use in extreme temperature, humidity or chemical environments. The introduction of chemicals such as chlorine, salt water or human sweat into the product will cause damage to the circuitry. Damage due to these causes is NOT covered under the Product Warranty.

If you experience difficulty with your system, call Toll-Free for Customer Assistance 1-800-843-3544 (U.S.A.) or +1 952 943 2252 (Outside the U.S.A.)

If it is necessary to return the system for service, your Customer Service Representative will give you a Return Authorization Number (RA) and shipping instructions. Pack the system carefully and send it to:

Williams AV

Attn: Repair Dept.

10300 Valley View Road

Eden Prairie, MN 55344 USA

Your Customer Service Representative will give you a Return Authorization Number (RA) and shipping instructions.

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