

BluePOD® Solo

Bluetooth® Integration Hub

USER MANUAL



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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 PLUGGING IN THE DEVICE 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 24VDC. Note: use the Williams AV TFP 062 power supply for this unit.
3. Do Not Touch any part of the BluePOD® Solo system with wet hands. Do not handle any part of BluePOD® Solo system, including the power cord and the CAT 5e cable connecting the Bluetooth Wireless Access Point, when your hands are wet or damp. If water or any other liquid enters the BluePOD® Solo system or system's location, take the full BluePOD® Solo system to qualified service personnel for inspection.

4. Place all components of the BluePOD® Solo system in a well ventilated location. Take special care to provide plenty of ventilation on all sides of the BluePOD® Solo system components, especially when it is placed in a small location, such as a rack. If ventilation is blocked, the BluePOD® Solo system may over heat and malfunction.
5. Do not expose the BluePOD® Solo system to direct sunlight or heating units as the BluePOD® Solo system's internal components temperature may rise and shorten the life of the components. Avoid damp and dusty places.
6. 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 an electronics recycling center, or return the product to the factory for proper disposal.



System Includes

- (1) AP BP2 [D] BluePOD® Solo Controller
- (1) Bluetooth Wireless Access Point (B-WAP)
- (1) TFP 062 International Desktop Power Supply
- (1) AC Regional Line Cord [WLC 004, 005, 006, or 007]

System Overview

The BluePOD® Solo 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 the BluePOD® Solo 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® Solo allows you to send professional grade audio to your existing sound system. The BluePOD® Solo system is designed for easy integration into larger and/or existing audio system projects. There is one balanced line input, and one balanced line output.

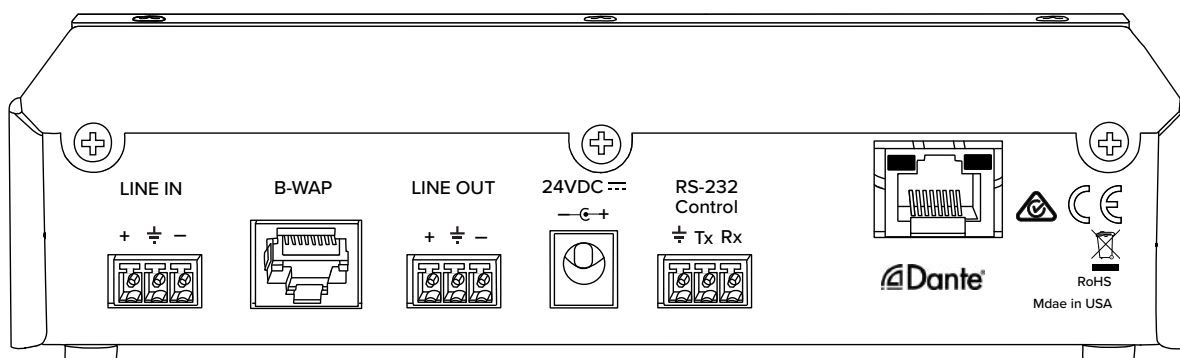


Figure 2: Diagram of Back Panel of Controller

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® Solo 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® Solo Controller. The B-WAP is connected to the BluePOD® Solo Controller via a **shielded** CAT5e or CAT6 cable.

Note: A shielded CAT6 cable is recommended whenever possible.



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

Example: Conference Phone Calls

Although the BluePOD® Solo can be used in many ways, a common use will be for phone calls in a conference room.

The BluePOD® Solo can broadcast audio from a room to a remote caller. If the phone with a Bluetooth connection to the B-WAP calls another person, the person called will hear the **line in** audio (such as a microphone). The audio from the person who has been called goes to the **line out** audio (such as a speaker).

For instance, in a conference room, the Bluetooth-connected caller will hear the person they have called through the room's speaker system. The person they called will hear the conversation picked up by the conference room's microphones.

Installation Procedures

Setting up the BluePOD® Solo will allow you to use a Bluetooth connection from your personal device (such as a laptop or phone) and use your conference room's existing sound system to make conference calls and more.

Additional Equipment

The BluePOD® Solo is intended to be connected to your existing audio system setup. It does not include a built-in sound mixer.

When using the BluePOD® Solo for phone calls, echo cancellation equipment may be necessary for your setup for professional audio quality. A microphone mixer with echo cancellation, or equivalent equipment, is recommended for your room's sound system. If your audio configuration does not already include echo cancellation equipment, Williams AV highly recommends you purchase echo cancellation equipment or purchase the BluePOD® Conference Mate rather than the BluePOD® Solo.

Connection Examples

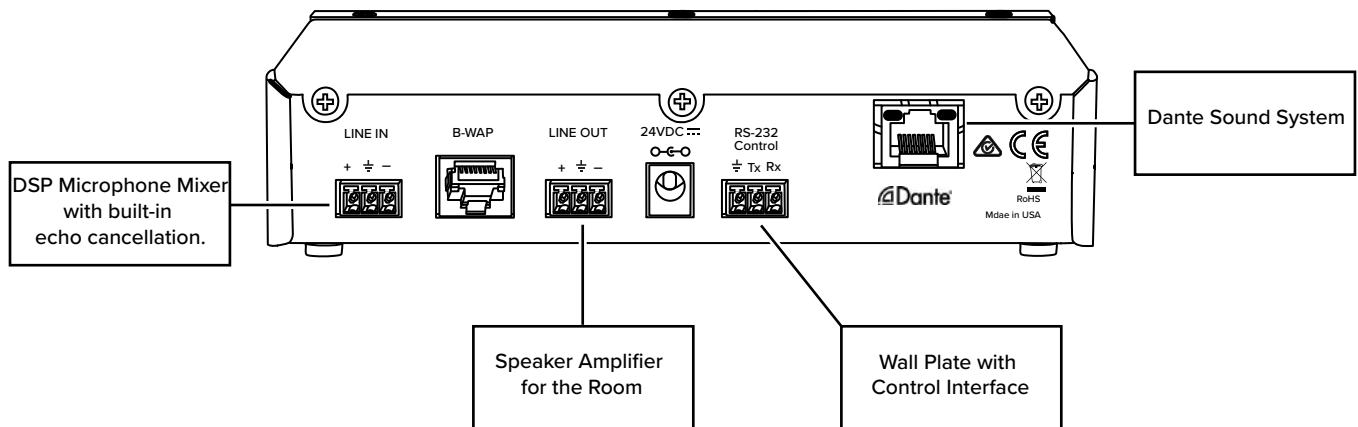


Figure 4: Examples of devices that can connect to the BluePOD® Solo

Physical Installation

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

Shielded Cables Required

A **shielded** CAT5e or CAT6 cable must be used. Note that "shielded" means there is a foil layer between the twisted-pair conductors and the insulation jacket.

Controller

The BluePOD® Solo Controller will need to be installed in a safe location near the sound equipment that will be used with the device. This is often in an entertainment cabinet or equipment rack. The controller will need to be placed within 100 feet (30.5 m) of the B-WAP.

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® Solo 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 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 shielded CAT6 cable. The maximum efficient length of the shielded 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 Dante port on the Controller - only connect it to the B-WAP port.

The B-WAP is powered via the shielded CAT6 cable and requires no other connection.

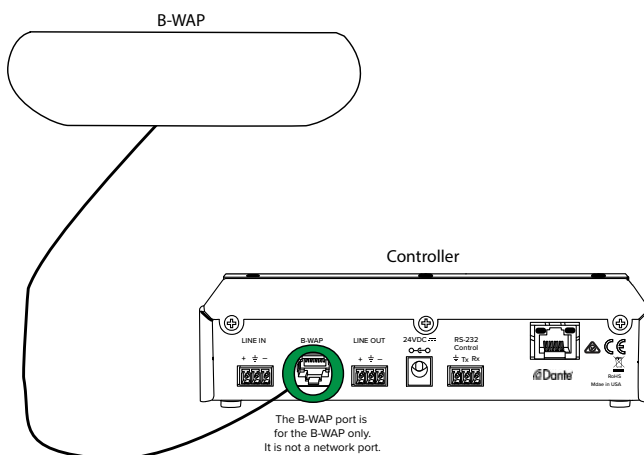


Figure 5: The B-WAP connects to the Controller via the B-WAP port.

Dante (Optional)

BluePOD® Solos that are Dante equipped may be linked to a Dante audio system via a cable into the Dante port on the back of the device. The connection is two-way and handles both input and output. Further configuration of the audio can be done through the Dante system. Not all BluePOD® Solos have a Dante port (AP BP2 D only).

Line Level Source (Phoenix style connectors)

Note: The BluePOD® Solo is designed to work with *professional* audio sources (+4 dBu line level). When using consumer grade sources (-10 dBV line level), a pre-amplifier may be necessary.

The BluePOD® Solo Controller will accept line level balanced or unbalanced audio inputs.

Note: The line in audio **does not** feed into the line out audio. Only audio sent over the Bluetooth connection will be available to the line out device, such as streamed music from a tablet.

Connect your audio source to the appropriate line in connectors.

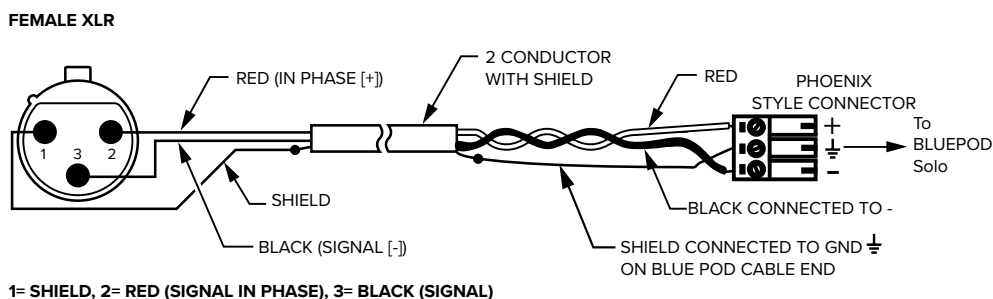


Figure 6: Balanced line out (XLR) to Controller line input (Phoenix style connector)

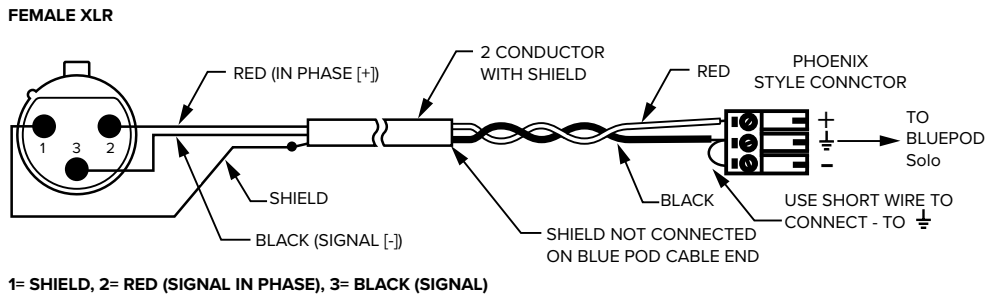


Figure 7: Unbalanced line out (XLR) to Controller line input (Phoenix style connector)

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® Solo Controller.

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

Proper Wiring (See yes circle): The L+ cable can be connected directly to the + connector. The R+ cables should not be used at all.

When summing for stereo to mono only, 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® Solo 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!

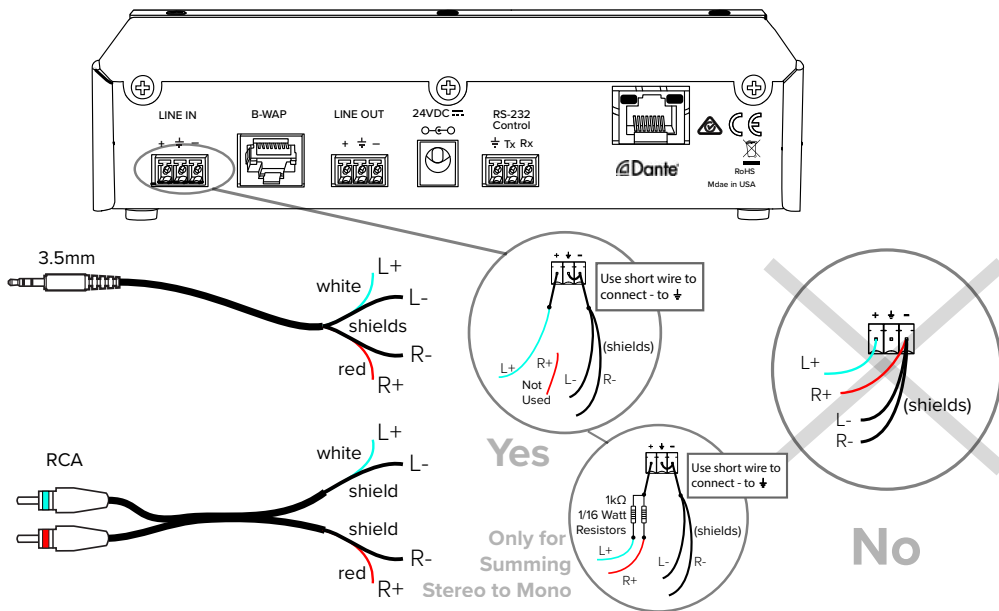
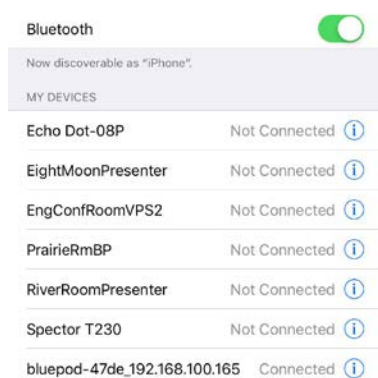


Figure 8: Improper and Proper Wiring

Connecting your Personal Device

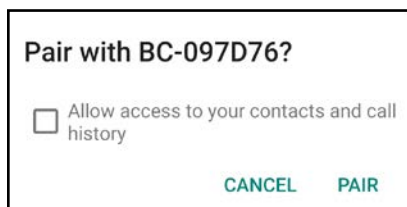


Personal devices do not require any special set up in order to be used; personal devices only need to make a Bluetooth connection to the BluePOD® Solo system.

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

Only one Bluetooth device can be connected to the BluePOD® Solo system at a time. When a device is connected to the B-WAP, a blue LED will illuminate.

The BluePOD® Bluetooth connection will be named similar to **Bluepod-[Device ID]** by default. The Device ID will be the last 6 digits of the B-WAP's Bluetooth Address. For example, *Bluepod-47de44* may be the connection name displayed. This name can be changed via RS-232 commands (see "RS-232 Controls" on page 9) and may be different. Check with your network administrator for the current name of your BluePOD® Solo's Bluetooth network name if you are unable to locate it.



Note: You may be prompted to allow the BluePOD® Solo to access your contacts. The BluePOD® Solo needs this permission because it can broadcast to or from phone call audio. This permission may still need to be granted even if phone call audio will not be broadcast over the BluePOD® Solo.

The BluePOD® Solo does not attempt to access or use your contacts or personal information. This prompt is automatically created by your phone as a warning because any Bluetooth audio connection has the potential to access phone call information over Bluetooth technology, whether the technology actually uses the information or not.

Disconnecting your Personal Device

The BluePOD® Solo system will not remember device connections once an audio broadcast has ended. The next time you use the BluePOD® Solo 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 using RS-232 controls (see "RS-232 Controls" on page 9).

Streaming music or other audio will not be automatically disconnected unless the timeout is hit. The default timeout is 20 minutes without audio and 2 hours with audio.

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

RS-232 Controls

RS-232 controls are available for the BluePOD® Solo, and can be used to set various settings such as the Bluetooth connection name.

A full documentation of RS-232 controls is available in the **BluePOD® Solo RS-232 Programmer's Guide**, available on the BluePOD® Solo product page on the Williams AV website.

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.

FCC

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

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

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.

Caution: Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

SAR Requirement

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

This product meets the applicable national or international RF exposure guidance (SAR guideline) when used normally against your head or, when worn or carried, at a distance of 0.5 cm from the body. The SAR guideline includes a considerable safety margin designed to assure the safety of all persons, regardless of age and health.

ISED

Innovation, Science and Economic Development Canada Statement

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment.

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

Cet équipement est conforme aux limites d'exposition de rayonnement d'IC RSS-102 déterminées pour un environnement non contrôlé. Cet

Son utilisation est soumise aux deux conditions suivantes:

1. Cet appareil ne doit pas causer d'interférences et
2. il doit accepter toutes interférences reçues, y compris celles susceptibles d'avoir des effets indésirables sur son fonctionnement.

SAR Requirement

This product meets the applicable national or international RF exposure guidance (SAR guideline) when used normally against your head or, when worn or carried, at a distance of 0.5 cm from the body. The SAR guideline includes a considerable safety margin designed to assure the safety of all persons, regardless of age and health.

Ce produit est conforme aux directives nationales ou internationales sur l'exposition aux fréquences radioélectriques (directives SAR) en vigueur lorsqu'il est utilisé normalement contre la tête ou, porté ou porté, à une distance de 0,5 cm du corps.

La directive SAR inclut une marge de sécurité considérable conçue pour assurer la sécurité de toutes les personnes, indépendamment de leur âge et de leur santé.

Japanese 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



R 006-000353

Specifications**BluePOD® Solo Controller and Bluetooth Wireless Access Point**

Dimensions:	7"W x 3.75"D x 1.5"H (178 cm x 95 cm x 38 cm)
Weight:	1.1 lbs (0.5 kg)
Power Supply:	Input: AC Power Socket; TFP 062; 100-240 VAC, 50-60 Hz International Desktop Power Supply with IEC Line Cords Output: 24VDC @ 0.75A DC 2.5 mm ID barrel plug
Bluetooth Wireless Access Point:	Bluetooth 4.2 with aptX HD Support; Connect with shielded CAT5e or CAT6 cable
Bluetooth Wireless Access Point Chassis:	Wall or ceiling mount type, molded plastic, white top, grey bottom
Controller Chassis:	Desktop type, black, metal with white and red legends on front, white legends on back.
Inputs:	Balanced, +4 dBu Line In (3 pole Phoenix style connector); Dante Optional
Bluetooth Range:	50 ft radius (15.24 m)
Outputs:	Balanced/Unbalanced, +4 dBu Line out (3 pole Phoenix style connector); Dante Optional
Optional Dante:	Available in AP BP2 D Model
RS-232 Control:	3 pole Phoenix style connector
Operating Environment:	32°F to 104°F (0°C to 40°C) with 0-90% relative humidity. Storage: -40°F to 150°F (-40°C to 65°C)
Warranty:	2-year parts and labor
Approvals:	CE, FCC, Industry Canada, RoHS3, WEEE, RCM, PSE

NOTE: Specifications subject to change without notice.

Visit our website for the latest specifications and publications: www.williamsav.com

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Williams AV, LLC is under license. Other trademarks and trade names are those of their respective owners.

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® Solo 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® Solo 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® Solo system. 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

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