

# HHS 108/116/124/132/132 D

Hearing Hotspot™ Servers

**USER MANUAL**



## Safety Warnings and Instructions

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**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 Sound 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 appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
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 12V. Note: use the Williams Sound TFP 051 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 the HHS 132/132D with wet hands. Do not handle the HHS 132/132D or power cord when your hands are wet or damp. If water or any other liquid enters the HHS 132/132D cabinet, take the HHS 132/132D to qualified service personnel for inspection.
5. Place the HHS 132/132D in a well, ventilated location. Take special care to provide plenty of ventilation on all sides of the HHS 132/132D especially when it is placed in an audio rack. If ventilation is blocked, the HHS 132/132D may over heat and malfunction. Do not expose the HHS 132/132D to direct sun light or heating units as the HHS 132/132D 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.

## System Overview

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Thank you for purchasing the HHS 108/116/124/132/132D Hearing Hotspot Server. It is available in five configurations:

**HHS 108** - 8 mono/4 stereo analog inputs

**HHS 116** - 16 mono/8 stereo analog inputs

**HHS 124** - 24 mono/12 stereo analog inputs

**HHS 132** - 32 mono/16 stereo analog inputs

**HHS 132 D** - 32 mono/16 stereo Dante™ input

### Upgrade Options:

#### **HHS CH8 - 8-channel analog input expansion module.**

Analog server units are field upgradeable with this module. Analog models with less than 32 mono/16 stereo channels are expandable with HHS CH8 Expansion modules, which are 8 mono/4 stereo analog input cards. The Server will accept up to four expansion modules for a total of 32 mono/16 stereo channels. Adding the module(s) requires some reconfiguration in the Server and those instructions are included with the expansion modules.

#### **HHS DM32 Conversion of HHS 108/116/124/132 to 32-channel Dante Input Server.**

This is not field-upgradeable - the server unit must be sent back to Williams Sound for conversion.

### Features:

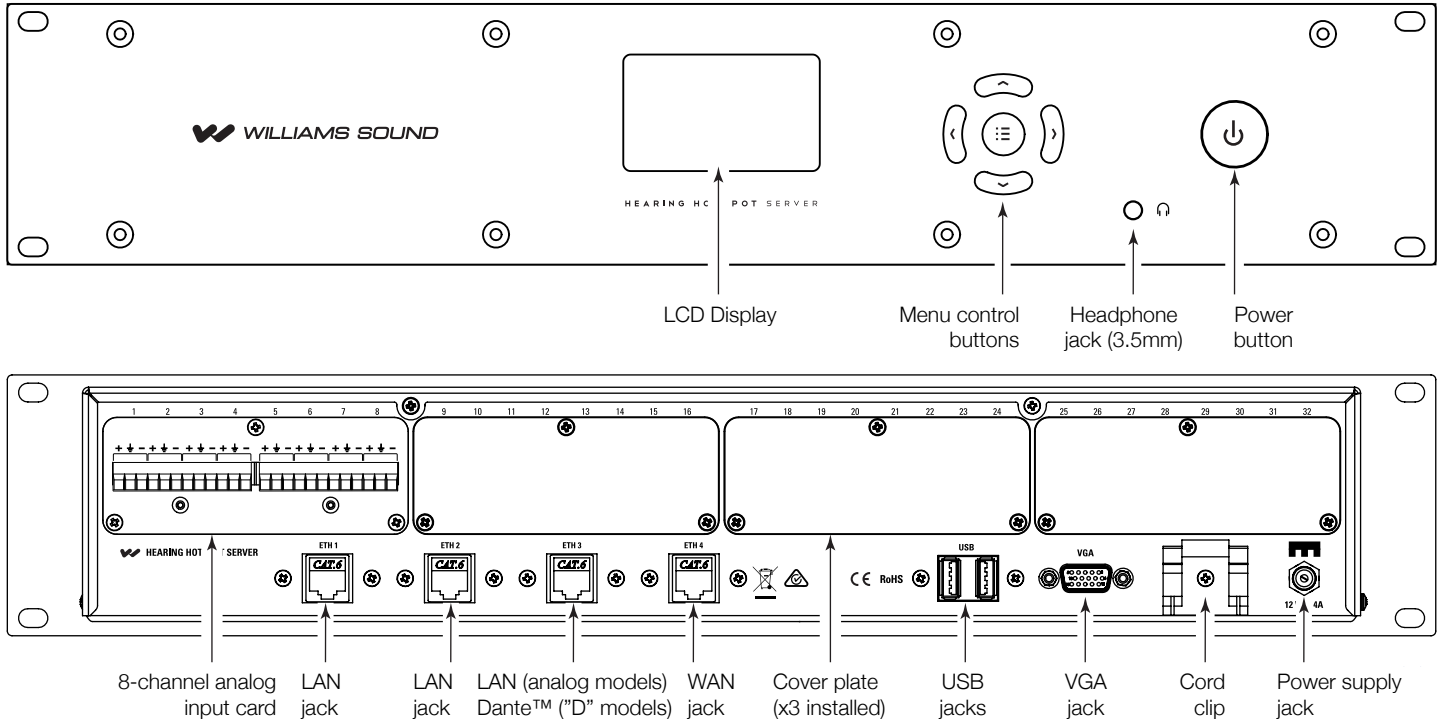
- Expandable (card slots = 8/16/24/32 channels)
- Scalable (up to 32 channels per unit, virtually unlimited number of units)
- Very low latency
- No receiver maintenance (user supplies their own device)
- Advertising content displayed on mobile devices
- Advertising content can be managed from any location with internet access

### Ideal applications:

- Sports Books
- Fitness Centers
- House of Worship
- Hearing Assistance
- Public events
- Interpretation
- Large venues

## Controls & Connectors

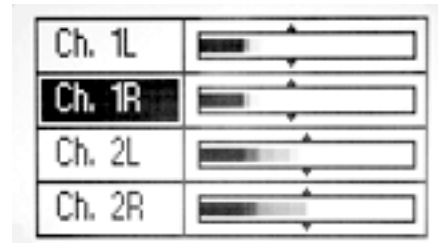
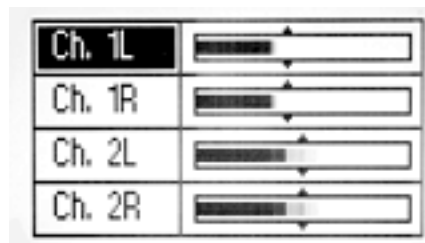
The menu controls are used to adjust the audio input levels displayed on the front LCD. When an input is highlighted, this input is played through the headphone jack.



## User Settings

The User can adjust audio input levels for each channel, but only if this feature is unlocked. If the audio levels cannot be adjusted as described here, contact the Integrator who installed the product to discuss unlocking the input level adjustment.

To access Audio Input Level settings, from the Main Screen (showing the Hearing HotSpot logo) push and release the Menu button. Use the left and right arrow buttons to adjust the level for the current input. Use the up/down arrow buttons to move to the next input. This menu will time out after approximately 1 minute of non-use.



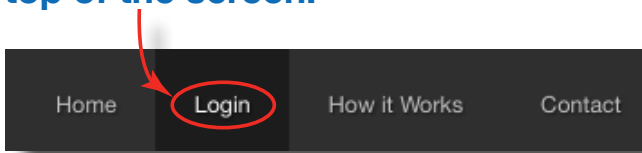
# Venue Portal

## (content management on smart devices)

Content pushed from the server to smart devices (such as advertising banners, coupons, downloadable pdf's, ticker messages etc.), is managed on the Hearing HotSpot™ Venue Portal.

### 1. Go to [www.hearinghotspot.com](http://www.hearinghotspot.com)

### 2. Click on the “LOGIN” button on the top of the screen.



### 3. Enter your User Name and Password.

The User Name and Password are assigned when the system is purchased. If these are not available contact the vendor from whom the equipment was purchased.

For more *detail* on how to log-in and use the Portal, visit our website and download the “Venue Portal User Guide”, or call us and ask for “Tech Blue”.

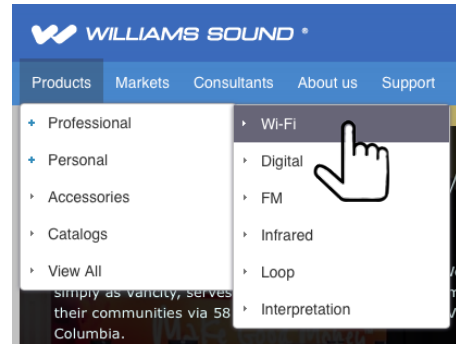
## Additional Resources

Please visit our website to find additional supporting documentation for the Hearing HotSpot Server like the following:

- Hearing HotSpot™ Venue Portal User Guide
- Hearing HotSpot™ Network Guide
- Hearing HotSpot™ Android App
- Hearing HotSpot™ iOS App
- .... and more.

To download, print and/or save these documents, please visit our website at [www.williamssound.com](http://www.williamssound.com).

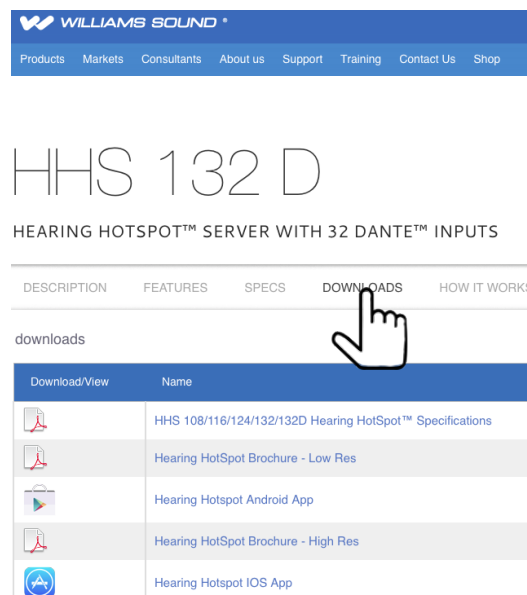
Use the top tabs to go to - Products - Professional - Wi-Fi.



Click on the model you have.



Click on the Downloads tab.



# HHS 108/116/124/132/132D Specifications

<b>Physical</b>	Standard 2 RU 19" rackmount, 13" D (deep rack required). Weight: 14.0 lbs (6.4 kg). Color: black brushed aluminum face, case is textured black. Blue backlit LCD Screen with dark blue text. Power and control buttons backlit blue.
<b>Environment</b>	Storage: -40° F to 150° F (-40° C to 65° C) Operating: 30° F to 110° F (0° C to 45° C)
<b>Cooling fan</b>	26 dB(A), variable speed, temperature controlled.
<b>Network requirements</b>	Network hardware must support IGMP, IGMP Snooping, multicast (multiple simultaneous multicast clients), voice or higher QOS, and have available bandwidth. Internet access for maintenance updates and content management through venue portal.
<b>Mobile device requirements</b>	Apple iOS 6 minimum, Android 4.2 minimum
<b>Expansion slots</b>	(4x) sled style, to accept one 8-channel analog input expansion module (HHS CH8) each. Unused slots have blank plates installed.
<b>Audio inputs</b>	<b>HHS 108/116/124/132:</b> Analog only. Accepts balanced or unbalanced line level. Input range -10 dBV to +8 dBu. Inputs provided by 8-channel audio input expansion module HHS CH8. One module provides 8 mono inputs, and each input has a 3-position terminal block configured as +, C, -. Each server unit can accept up to 4 expansion modules or 32 mono/16 stereo input channels total. <b>HHS 132 D:</b> Dante™ (virtual sound card) only. Up to 32 Dante™ channels per server. Expansion card slots have (4x) blank plates installed.
<b>Ethernet jacks</b>	(4x) RJ-45 jacks, 10/100/1000 Mbps, provided by internal router, configured as the following: <b>HHS 108/116/124/132:</b> (3x) LAN, (1x) WAN. (See rear diagram for location) <b>HHS 132 D:</b> (2x) LAN, (1x) Dante™, (1x) WAN. (See rear diagram for location)
<b>USB port</b>	Version 2.0 supported.
<b>VGA port</b>	Supported resolutions up to 2560 x 1600.
<b>Headphone jack</b>	3.5 mm stereo jack, 35 mW, 33 Ω load.
<b>Data transmission method</b>	Proprietary Hearing Hotspot software; Live streaming IP
<b>Latency</b>	Server native: μs range. Packet buffer configured for 60 ms. Receiving devices: 100 ms optimum.
<b>Sampling rates supported</b>	48, 44.1 kHz at 24-bit resolution
<b>Audio bandwidth used</b>	Ethernet (wired): No more than 8 kbps, per stream Wi-Fi: No more than 12 kbps Wi-Fi, per stream
<b>Power</b>	External desktop power supply required (TFP 051). Input: Universal 90-240 VAC, 50/60 Hz, 60 Watt. Output: 12 VDC, 4 A, 2.1 mm plug, center positive.
<b>User control interface</b>	LCD screen with Left, Right, Up, Down and Select buttons. Each input can be adjusted for pad (preset attenuation level), trim, level (volume), and type (balanced mono, unbalanced mono, unbalanced stereo). Output selectable as stereo or mono. Input attenuation range adjustment ± 6 dB.
<b>Application features</b>	Channel naming, coupons, advertising banners, scrolling ticker, custom background, downloadable pdf's.
<b>Warranty</b>	2 years
<b>Approvals</b>	FCC, IC, CE, RCM, RoHS, WEEE. Safety certifications (UL, CB scheme) pending,

**NOTE: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.**

Note: The Hearing HotSpot™ Server is designed to operate on a typical ethernet network. Except for the internal router, no other network hardware is included with the server. Each network has several factors that can affect performance of the Server. Each *mobile device* can also have characteristics that can affect performance. Maximum of 249 user devices (IP addresses) per server when internal router is used (one subnet). Some enterprise networks may be able to be configured to have more. Please consult your Williams Sound representative or call our Tech Blue Team for more information about optimizing a network and devices for best possible performance. If no network exists, our Tech Blue Team can help you design one to optimize performance of the Server.

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## 2 Year Warranty

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

Williams Sound warrants the HHS 108/116/124/132/132D Hearing HotSpot™ Server 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 Sound has no control over the conditions under which this product is used. Williams Sound, therefore, disclaims all warranties not set forth above, both express and implied, with respect to the HHS 108/116/124/132/132D Hearing HotSpot™ Server, 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 Sound 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 Sound to any representation or warranty with respect to the HHS 108/116/124/132/132D Hearing HotSpot™ Server. 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 Sound is not liable for consequential damages due to any failure of equipment to perform as intended. Williams Sound 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.williamssound.com/warranty-statement](http://www.williamssound.com/warranty-statement)

NOTICE: Williams Sound 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.



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