

HINT 6

2.1 Channel Halo Integrated Amplifier & DAC

OWNER'S GUIDE

Important Safety Instructions

The lightning flash with the arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of “dangerous voltage” inside the product that may constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the product.

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

1. **Read Instructions** — Read all the safety and operating instructions before operating this product.
2. **Retain Instructions** — Retain safety and operating instructions for future reference.
3. **Heed Warnings** — Adhere to all warnings on the product and in the operating instructions.
4. **Follow Instructions** — Follow all operating and use instructions.
5. **Cleaning** — Unplug this product from the wall outlet before cleaning. Use a damp cloth for cleaning. Clean the outside of the product only.
6. **Attachments** — Do not use attachments that are not recommended by the product manufacturer; they may be hazardous.
7. **Water and Moisture** — Do not use this product near water.
8. **Accessories** — Do not place this product on an unstable cart or stand. The product may fall, causing bodily injury and damage to the product. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart to overturn.
9. **Ventilation** — Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided.
10. **Power Sources** — Operate this product only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your dealer or local power company. This product is equipped with a three-prong grounding plug. This plug will only fit into a grounding power outlet. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding plug.
11. **Power Cord Protection** — Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them.
12. **Lightning** — Unplug the unit from the wall outlet for added protection during a lightning storm and when it is left unattended and unused for long periods of time. This will prevent damage to the product due to lightning and power line surges.
13. **Overloading** — Do not overload wall outlets or extension cords. This can result in a fire or electric shock.
14. **Inserting Objects into Unit** — Never push objects of any kind into this product through any openings; they may touch dangerous voltage points or short out parts that could result in fire or electric shock.
15. **Servicing** — Do not attempt to repair or service this product yourself. Opening or removing covers may expose you to dangerous voltage and other hazards. Refer all servicing to qualified service personnel.
16. **Damage Requiring Service** — Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions: **a)** If the power-supply cord or plug is damaged. **b)** If liquid has been spilled into the product. **c)** If the product has been exposed to rain or water. **d)** If the product does not operate normally by following the operating instructions. **e)** If the product has been dropped or damaged in any way. **f)** If the product exhibits a distinct change in performance.
17. **Replacement Parts** — When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer. Unauthorized substitutions may result in fire, electric shock, and other hazards.
18. **Safety Check** — Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
19. **Wall or Ceiling Mounting** — Mount the product to a wall or ceiling only as recommended.
20. **Heat** — The product should be situated away from heat sources such as radiators, heat registers, stoves, and other products (including amplifiers) that produce heat.

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Introduction

Thank You for Choosing Parasound

Your new Parasound® HINT 6 is an advanced 2.1 channel integrated amplifier that has been designed for the highest performance for serious two channel music listening and ease of integration with a surround sound system. The HINT 6 is built to the extremely strict quality and performance standards for which Parasound is renowned. We're proud to offer you this exceptional audio component that will bring you many years of enjoyment and dependability. Because your new HINT 6 amplifier performs at a higher level of sonic performance than you may have expected we encourage you to read this entire manual to maximize your enjoyment. We wish you many years of listening enjoyment.

-The Parasound Staff

Keeping Records for Future Reference

Record the serial number located on the back panel or bottom of your HINT 6 in the space below. Also note your Parasound Dealer's name and telephone number. Your purchase receipt/bill of sale is required to determine if your HINT 6 is eligible for Parasound warranty service. We recommend that you make an extra copy of your original purchase receipt/bill of sale and store it inside the HINT 6's carton.

HINT 6 Amplifier Serial #: _____ (5 digit number below the bar code on the chassis bottom)

Parasound Dealer: _____

Parasound Dealer Phone Number: _____

Date of Purchase: _____

Important Warranty information

There is no Parasound warranty for this unit if it was not purchased from an Authorized Parasound Dealer. Investigate warranty coverage statements made by an *unauthorized* dealer very carefully, as you will need to depend entirely upon your dealer, and NOT upon Parasound. Unauthorized dealers lack the capability to make repairs or arrange for repairs of Parasound equipment. A list of Authorized Parasound Dealers and detailed warranty information is available at **www.parasound.com** or you can call **415-397-7100** between 9:00 am and 4 pm Pacific time. A missing or altered serial number could indicate that this unit was re-sold by an unauthorized dealer or is stolen merchandise. If this unit is missing its serial number or the serial number has been altered, you should return it to your dealer immediately for a full refund.

Unpacking Your HINT 6 & Placement Guidelines

Unpacking Your HINT 6

Carefully remove your HINT 6 from its shipping carton and locate the enclosed accessories:

- AC power cord
- A 12V trigger wire with mono 3.5mm mini plugs on each end
- Remote Control with two AA batteries
- USB A to USB B cable for music playback from a computer

While you are unpacking your HINT 6, inspect it thoroughly for possible shipping damage and tell your Parasound dealer immediately if you find any evidence of shipping damage. This would be a good time to make a copy of your sales receipt to store with the HINT 6's original packing.

Note: The HINT 6 should be shipped only in its original carton set and foam packing inserts. Please save and store both the inner and outer cartons and, most especially, the foam packing inserts to protect the HINT 6 if you have to move it or ship it. You may wish to flatten the cardboard cartons to save room in storage after cutting the taped seams on the bottom flaps.

Placement Guidelines

The HINT 6 will be easier to use and will last longer if you follow these simple guidelines:

- Use input and output cables that are long enough to leave some slack; that will enable you to pull the HINT 6 out of a cabinet to check or to change connections without inadvertently disconnecting cables.
- Place your HINT 6 where you can route input and output signal cables as far as possible from AC cords.
- Where signal cables must cross AC cords they should do so only at a 90° right angle.

Ventilation Requirements

- Always position the HINT 6 horizontally.
- The HINT 6 should not be stacked on top of a power amplifier.
- The HINT 6 should not be placed in a completely enclosed cabinet.
- The HINT 6 requires at least 4" inches (10cm) empty space above it to avoid overheating

Rack Mounting your HINT 6

With its four feet removed, the HINT 6's front panel height occupies three rack spaces: 5.25" or 133mm. (A single standard rack space occupies 1.75" or 44.5mm vertical height.) For mounting in a standard 19" equipment rack, you must use the Parasound HRA 3 rack mount kit (sold separately). The HRA 3 kit includes four bolts and eight plastic washers with raised "shoulders." Slide one washer onto each mounting bolt with its raised shoulder pointing toward the panel hole. Insert the bolt through the hole and slide the other washer on the bolt with its raised shoulder facing the rear side of the panel. The washers will sandwich the HINT 6 panel and the four mounting bolts to prevent metal-to-metal contact between the HINT 6 chassis, the equipment rack, and the other components mounted in the rack.

Note: Because of its high bias Class A/AB design the HINT 6 can get very warm, even when no music is playing. At least 4" (or 10cm) of free space must be left above the unit. Other heat-producing components should not be positioned directly beneath the HINT 6.

Warning: Do not put the screws for the feet back into the bottom of the HINT 6 without the feet. If you insert the screws without the feet they could touch internal electrical circuitry and cause a short circuit, damage to the amp and electric shock.

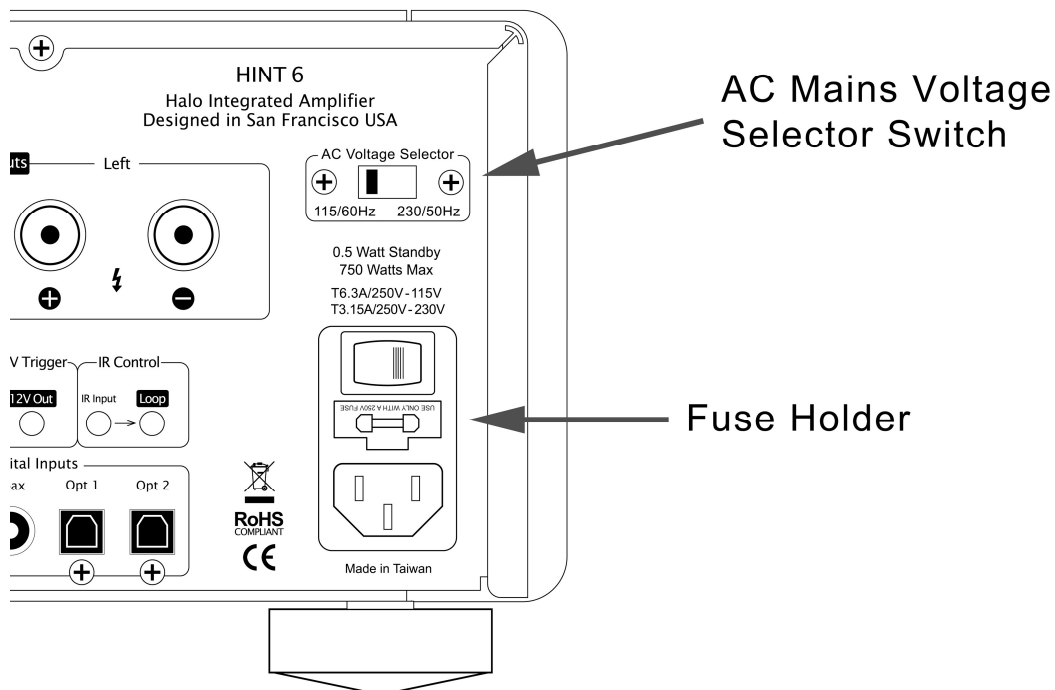
AC Mains Voltage Selection and Fuse

Check the 115V/230V Voltage switch before plugging in the HINT 6's AC mains power cord!

Make sure the 115V/230V Voltage Selector switch on the HINT 6's back panel is set for the correct AC line (mains) voltage *before* you plug in the power cord. It can be seriously damaged if this switch is set for the wrong AC mains voltage.

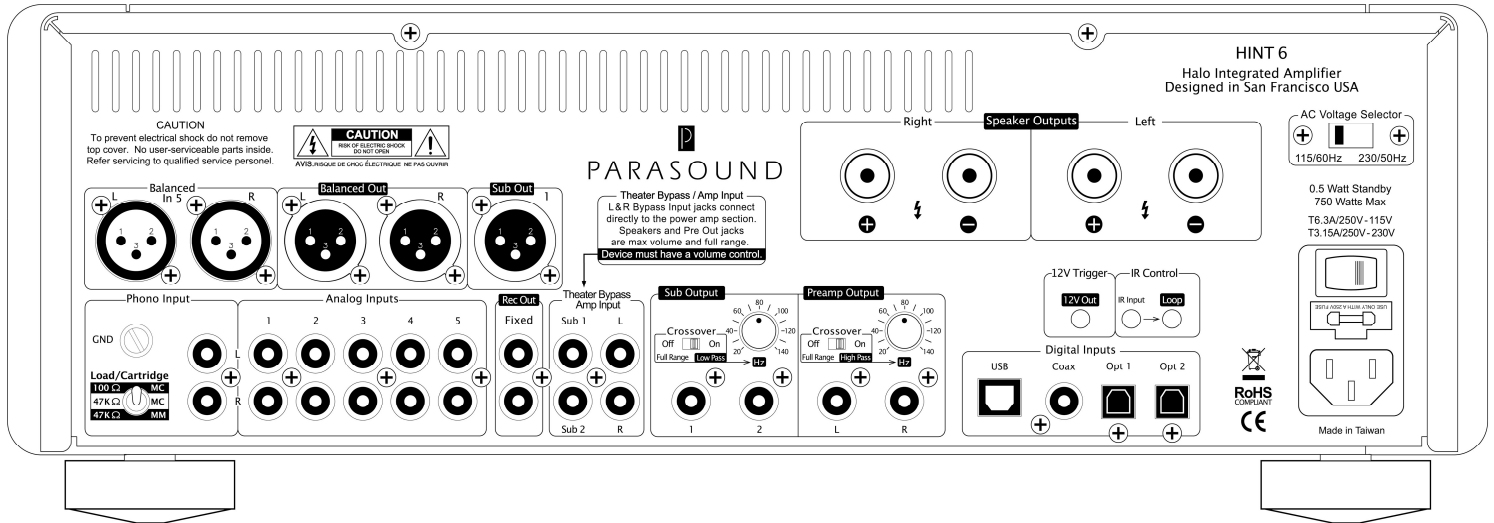
In the 115 V position the HINT 6 can safely operate with AC Line voltages between 110-125 V which is correct for North America, Mexico, and Taiwan. In some countries, such as Brazil, AC voltages differ by region. Most other countries require setting it to 230 V. With the 230 V setting the HINT 6 can operate safely with AC line voltages between 220-250 V. If the AC Voltage Selector is changed the rear panel fuse value must also be changed. The HINT 6 operates on 50Hz or 60Hz AC.

Note: A HINT 6 that has been damaged by connection to the incorrect AC mains voltage is not covered by the Parasound warranty.



Analog Audio Input Connections

Always unplug your HINT 6's AC Mains power cord before making or changing any input, output or trigger wire connections. Inserting or removing an input or output cable while the HINT 6 is turned on can result in a blast of sound that could damage your loudspeakers. Make sure there is no strain or tension on any cables that could cause them to pull loose.



Phono Input

The HINT 6 is equipped with a high-quality phono stage. If you wish to connect a turntable, set the Load/Cartridge switch to MM (moving magnet) or MC (100 Ω or 47k Ω moving coil), depending on your cartridge type. Select MM if you are not sure which type of cartridge you have. If you use the MC setting with an MM cartridge the volume level will be very high and distorted.

Note: Only a turntable can be connected to the Phono input.

Phono Load/Cartridge Switch

The Phono input has a three-position Load/Cartridge selector switch. Select the switch position that matches your turntable cartridge type. We recommend that you contact the cartridge manufacturer if you are unsure which setting to use. You can also try all three settings and use the setting which sounds the best in your system and listening room.

- **MM** is for moving magnet cartridges. It provides a 47k ohm load and the appropriate gain for all MM cartridges. This is the most common cartridge type.
- **MC 100 Ω** is for most moving coil cartridges. It provides the higher gain required for even very low output MC cartridges and a 100 ohm load that is ideal for most MC cartridges.
- **MC 47k Ω** provides the appropriate gain for MC cartridges with an alternative 47k ohm load. You can try both the 100 Ω and 47k Ω settings to see which sounds best in your system. The MC 47k Ω setting is also the load which Grado™ recommends for their MI (moving iron) cartridges.

Note: If your turntable won't reach adequate volume, or if it plays too loud, you have selected the incorrect cartridge type. Don't forget to connect the ground wire from your turntable to the Phono GND (ground) terminal on the HINT 6.

Analog Audio Input Connections (Continued)...

RCA Line Level Input Jacks (Inputs 1-5)

Source inputs 1–5 all have the same input sensitivity and input impedance and are compatible with any typical analog line level source.

Note: Input 5 is shared with the XLR balanced input connectors, therefore the RCA and XLR jacks for input 5 cannot be connected at the same time.

XLR Balanced Input (Input 5)

Input 5 also uses balanced XLR type jacks. Use this input to connect an analog source which has balanced XLR outputs. A balanced line provides superior hum and noise cancellation, especially for long cable runs.

Note: Input 5 is shared with the XLR balanced input, therefore the RCA and XLR jacks for Input 5 cannot be connected at the same time.

Front Panel Aux Input

For your convenience there is an input jack on the front panel for a portable MP3 player, tablet, or mobile phone. Connect a cable with 3.5 mm stereo mini plugs between your portable player, tablet or phone's headphone jack and the HINT 6's Aux input jack. The Aux input has an additional gain stage that boosts the input signal by 12 dB so that the volume level is comparable with your other audio sources. For the best result set your portable player or phone's volume to at least 75% of its maximum level.

Note: If you connect a component other than a portable MP3 player or phone to the Aux Input jack, the volume level will probably be too high and likely distorted.

Theater Bypass / Amp Input

The HINT 6's Bypass/Amp input makes it suitable for both the highest quality stereo reproduction and powering the L and R channels in a surround sound system. This unique feature benefits your system in several ways. It will improve the performance of your left and right speakers in a surround sound system because the power amp built into the HINT 6 is superior to any surround sound receiver's amp. This will also relieve your AV receiver of the burden of driving the left and right speakers so that more power is available to drive the center and surround channels. This feature also enables your subwoofer(s) to operate with stereo sources and the sub channel(s) in your surround sound system.

Note: The HINT 6's Theater Bypass function requires preamp output jacks on your surround sound processor or AV receiver.

How it Works

The HINT 6 Theater Bypass function routes the incoming L and R (front) channels from your surround receiver (processor) L and R Preamp Output jacks directly to the HINT 6's power amp stage, bypassing the preamp stage and all controls. The HINT 6 functions as a pure standalone power amplifier when its Bypass input is used.

Your surround processor's or AV receiver's sub out jack(s) are routed from the HINT 6 Bypass Sub In jacks directly to its Sub Output jacks. When you select the HINT 6 Bypass input its preamp circuits and controls are entirely out of the signal path.

Note: The HINT 6 must be turned on for the balanced XLR outputs to function for the Bypass Input. This is because the XLR balanced outputs require active driver circuitry.

The HINT 6 Bypass Input circumvents all controls:

- *Adjusting the HINT 6's Volume knob or remote control volume buttons will not change the volume level of the Bypass input.*
- *The Bass and Treble Tone controls do not function and frequency response is flat, regardless of how these controls are adjusted.*
- *The Left-Right Balance control does not function. L and R channel balance is equal, regardless of how this control is adjusted.*
- *The Pre and Speaker Outputs are full range, regardless of the Preamp Output Crossover settings.*
- *The Sub Outputs are full range, regardless of the Sub Out Crossover settings.*

Note: If you adjust any of the above controls while the Bypass Input is selected you will not hear changes. But the changes will become audible when you select any other HINT 6 input.

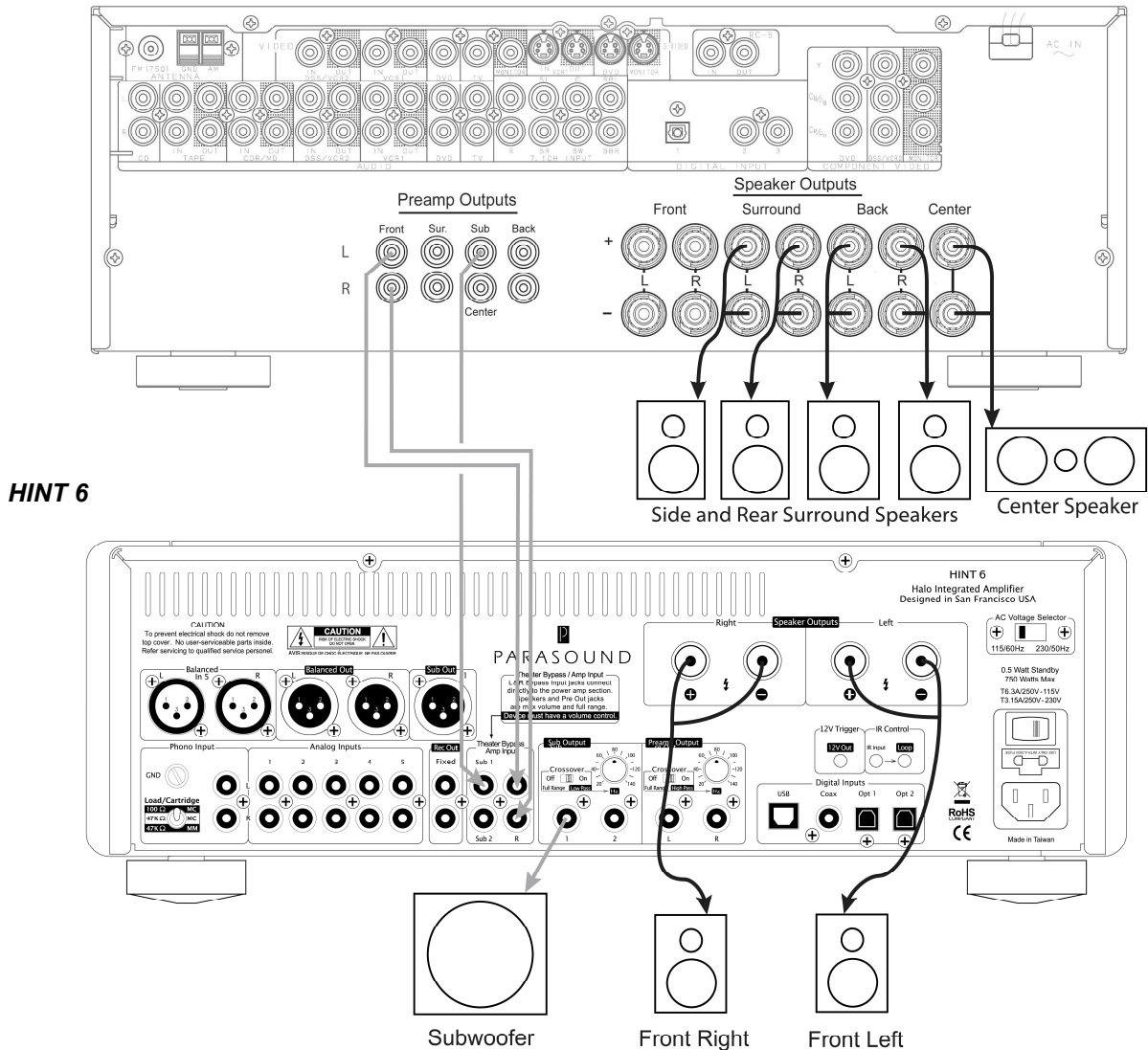
The Surround Sound Receiver or Processor Stays in Control

The exclusions above are intentional so that your surround sound receiver volume control and bass management settings are preserved when you are listening to surround sound with the left, right and subwoofer channels routed through the HINT 6. Please see the owner's manual for your surround sound receiver to set and calibrate speaker levels, distance and bass management. After adding the HINT 6 to an existing surround sound system you should recalibrate your system with the calibration microphone that's typically included with surround sound receivers. Don't forget that the volume control on the HINT 6 will not work when the Bypass Input is selected. Use the volume control on your surround sound receiver (or processor).

Connecting the Theater Bypass / Amp Input

Connect your surround sound receiver or processor's Left, Right & Sub(s) preamp output jacks to the HINT 6's Left, Right & Sub Bypass Input jacks. With a single subwoofer you can use either the HINT 6 Sub 1 or Sub 2 Input jack. Connect your left and right speakers to the HINT 6 Left and Right Speaker Output terminals. Connect your subwoofer(s) to the HINT 6 Sub Output jack(s).

Surround Sound Receiver or Processor



The HINT 6 Bypass Inputs should not be connected directly to any source component with a fixed output level. Examples are CD players, most Blu-ray/DVD players, tape decks or tuners. Since there is no volume control with the Bypass input the full voltage output from the source will go directly to the HINT 6 power amplifier. The sound level could be extremely high and could damage your speakers.

Note: Even when the HINT 6 is turned off its Bypass L, R & Sub RCA Input jacks are connected directly to its L, R & Sub RCA Preamp Output jacks. The HINT 6 must be turned on for the Balanced XLR outputs to function.

Digital Inputs: OPT 1, OPT 2, COAX, USB

The HINT 6's built-in 32 Bit DAC (Digital to Analog Converter) uses a very high resolution 384 kHz ESS Sabre32® Reference DAC IC. Since the HINT 6's DAC is superior to the DACs in most digital source components, they will sound better if you connect one of their digital outputs to the HINT 6's DAC instead of connecting their analog output jacks.

Using a TV, Blu-ray, DVD Player or Gaming Console's Digital Output

If you connect a TV, Blu-ray player, DVD player, cable TV box, satellite receiver or gaming console to your HINT 6 you must go to the device's audio setup menu and select stereo PCM (2.0). The HINT 6's DAC accepts only two-channel stereo PCM. It does not accept Dolby Digital or DTS formats.

Opt (Optical) 1 & 2

The Optical 1 and 2 inputs use high speed Toslink receivers. Each accepts PCM digital signals up to 192 kHz with 16 or 24-bit word lengths.

Optical Interconnect Note: 176.4 kHz and 192 kHz sampling rates will only play reliably with a short (no more than 6 feet/2 meter) optical cable. Be careful when handling the optical cable. It cannot be bent at a sharp angle without impairing its ability to transfer the digital signal from your source to the HINT 6.

Coax (Coaxial)

The Coax (also called S/PDIF) input connector is an RCA jack. It accepts PCM digital signals up to 192 kHz with 16 or 24 bit word lengths.

Coaxial Cable Note: Digital coaxial cables often look like typical analog audio cables, but their electrical characteristics are not always the same. The HINT 6 Coax input works best with a true 75 ohm cable which typically has 75 ohm, RG6 or RG59 printed on the cable jacket. Using an ordinary audio cable can make the signal unstable, resulting in high levels of jitter and even audio dropouts.

USB

The USB input is used to connect your HINT 6 to your Windows® PC or Mac computer. This allows high quality playback of any music files that are stored on your computer and streaming music services you access over the internet. The USB Input accepts PCM sampling rates up to 384 kHz with 16, 24 or 32-bit word lengths. The USB input also accepts native DSD and DoP (DSD over PCM).

The HINT 6 uses USB 2.0 which requires users of some older versions of Windows® to first download and install drivers on their computer. MAC users do not need to install any drivers. Follow the instructions on the next page of this manual to setup your computer for use with the USB input.

USB Cable Note: Inexpensive USB cables longer than 6' (2m) are often unreliable and a common cause of audio drop-outs. If a longer USB cable is required, a higher quality USB cable will usually offer more consistent results.

Playing Music from your Computer

Once initial computer setup is complete your HINT 6 will be ready for use with your PC or Mac. Press the USB button on the HINT 6's remote control or rotate the HINT 6's Input select knob until the blue USB indicator is illuminated. Simply start playing any music on your computer and it will be sent to the HINT 6 via the USB cable. Any sound that you would normally hear through your computer speakers will be heard through the HINT 6 and your accompanying audio system.

Note: For the highest quality sound playback we recommend leaving the computer application's volume control at 100%. Then use the volume control on your HINT 6 to set the listening level.

USB - Computer Setup

Mac Users


Apple® computers do not require the installation of drivers to use the USB input. Connect the USB cable (included in the HINT 6 carton) to your Mac computer and then turn on the HINT 6. Next you will need to ensure that the HINT 6 is selected as the computer's default audio output device. Follow these instructions to assign the HINT 6 as the default audio device:

1. Go to the Apple menu
2. Select "System Preferences"
3. Select "Sound" from the Hardware menu
4. Select the "Output" tab
5. Select "PARASOUND" in the Sounds menu
6. Close the Sounds menu

Windows® 10 Users

Starting in early 2018 Microsoft started including USB 2.0 audio drivers with Windows 10 updates. If you are running Windows 10 and your operating system has automatically updated then you should not need to install any drivers in order to use your HINT 6. If your Windows 10 PC has not been updated then you must update your operating system or follow the instructions for Windows 7 drivers installation below.

Connect the USB cable (included in the HINT 6 accessories carton) to your PC and then turn on the HINT 6. Next you will need to ensure that the HINT 6 is selected as the computer's default audio output device. Follow these instructions to assign the HINT 6 as the default audio device:

1. Right click on the loudspeaker icon  in the bottom right of your screen (on the tool bar)
2. Select "Playback Devices"
3. When the "Sound" window pops up click on "PARASOUND" and then click "Set as Default"
4. Click "OK" to close the "Sound" window

Parasound not listed as a playback device?

- 1) Make sure the HINT 6 is powered on.
- 2) Connect your PC to the HINT 6 with a USB cable no longer than 6' / 2M.
- 3) Ensure that your version of Windows 10 is up to date.
- 4) If "PARASOUND" is still not showing up as a playback device then you can follow the driver installation instructions for Windows 7 shown below.

Can't find the speaker icon?

If for some reason you cannot find the loudspeaker icon you will need to select "Sound" in the Control Panel or by typing "Sound" into the Windows 10 search bar.

Windows® 7, 8 and Vista Users Must First Install Drivers

If you are using Windows 7, 8 or Vista you must first download and install the drivers from Parasound's website (www.parasound.com). Please visit the support/downloads section on the HINT 6's web page for the drivers and installation instructions.

Audio Output Connections

Left and Right Speaker Outputs

The speaker binding posts accept a wide variety of speaker wire and connectors, including large spade connectors, banana connectors, and bare wire as large as 8 gauge. The binding posts are spaced wider than traditional dual-banana plug connectors. This wider spacing is intentional so that larger spade lug connectors can be used without the risk of a short circuit.

Left and Right Preamp Output Jacks (Balanced and Unbalanced)

The HINT 6 Preamp Output jacks have the same preamp line level audio signal that goes to its power amp stage. The Preamp Output jacks are used for connecting an external power amplifier. An external amp could be used for bi-amping your speakers or for driving speakers in another room. Both RCA (unbalanced) and XLR (balanced) outputs are provided and both types may be used at the same time. If you are using two subwoofers in your system and wish them to be stereo (rather than mono) you could also use the Left and Right Preamp Output jacks, rather than the Sub Out jacks for this purpose. If you are using stereo subs in this way, you would need the HINT 6 High Pass Crossover switch to be set to Off.

The Balanced XLR Left and Right Outputs have the same signal as the Left and Right RCA Output jacks. Balanced outputs have 6dB higher gain. Both RCA and XLR outputs can be connected at the same time. The high pass crossover switch effects both the RCA, XLR and speaker outputs.

Subwoofer Outputs (Balanced and Unbalanced)

The HINT 6 provides one XLR connector and two RCA jacks for one or more subwoofers. The two unbalanced and one balanced subwoofer outputs all carry the same mono signal. You can select whether the mono signal is full range or crossed over according to the frequency you select for the Low Pass crossover. The Balanced XLR Sub Output has the same signal as either Sub 1 or 2 Output RCA jack. Balanced has 6dB higher gain. Both RCA 1 & 2 outputs and the XLR output can be connected at the same time.

Using Stereo Subwoofers

If you have two subwoofers and want them to operate in stereo you can connect them to the Left and Right Preamp Output jacks instead of to the Sub Output jacks which are mono. In this case you would need to set the High Pass crossover switch to Off. With this configuration the front panel Sub Level control does not function.

Record Out Jacks (Fixed Level)

The Record Out jacks connect to your analog audio recorder's record/input jacks. When you select an input on the Integrated the signal from the corresponding source component is available at the Record Out jacks whenever it is turned on. It is a fixed level signal that is unaffected by volume, balance, tone settings, audio mute or crossover settings. The fixed level Record Out jacks are also useful to connect a power amplifier for speakers in another room that has a passive in-wall volume control.

Note: When you select the Bypass input, there is no signal available at the Record Out jacks. The HINT 6 does not offer simultaneous monitoring of a recording while you are making it.

Other Rear Panel Connections

12V Output Jack

If an additional power amplifier is equipped with a 12 V trigger input you may find it convenient for the HINT 6 to turn it on and off automatically. Connect the trigger cable (included) between the HINT 6's 12 V Out jack and the external amplifier's 12 V trigger input. When the HINT 6 is powered on, 12 volts will be present at the 12 V output jack and your amp will turn on automatically.

Note: The 12 V trigger wire included with the HINT 6 has mono plugs. A cable with stereo plugs such as an aux cable will not work.

IR Input Jack

Your HINT 6 is compatible with most popular infrared repeater systems for remote control operation from another room or when the HINT 6 is installed in a cabinet where its remote handset signals cannot reach its front panel remote control sensor. The External Remote Input connector is a standard 1/8" (3.5mm) mono "mini" jack. The center conductor (plug tip) is for signal and the outer conductor (plug sleeve) is for ground. Your Authorized Parasound dealer or custom installer can recommend a compatible IR repeater system.

IR Loop Output Jack

The loop output offers a convenient way to daisy-chain an IR signal to another component that is also equipped with an IR input jack. Whatever IR control signal is present at the HINT 6 rear panel IR Input jack is also present at its IR Loop Out jack.

AC Power Cord

The AC power cord supplied with your HINT 6 is a high quality IEC-type cord. If possible, plug your HINT 6 into the same AC outlet to which your source components and additional power amplifier(s) are plugged in to. If different AC outlets are used for the HINT 6 and your other components the ground potential may be higher or lower between the outlets, resulting in audible hum.

Subwoofer Setup

The crossover setup and level setup are two important steps in setting up your sub(s).

Subwoofer Crossover Setup

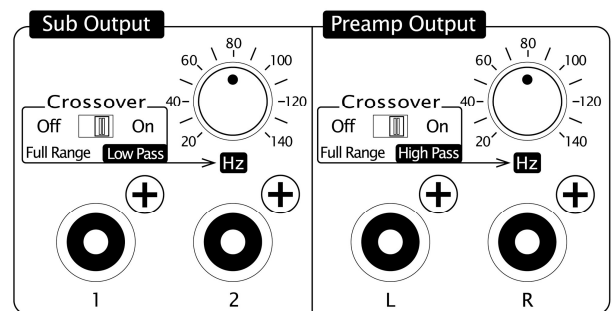
You should turn off the crossover built into your subwoofer's amplifier, since the HINT 6 has its own crossovers and leaving both the sub's and HINT 6's crossovers on will result in double-filtering. Most powered subwoofers have a switch that's typically labelled "Bypass", "Home Theater" or simply "Crossover Off." If your subwoofer's crossover cannot be switched off, set it to its highest frequency. Follow the Crossover setup section for the proper settings.

Subwoofer Level Setup

To set the proper subwoofer level, start with the HINT 6's front panel Sub Level control set to its 12 o'clock (0dB) position and then play a variety of music. Adjust the level control built into your subwoofer until the bass level sounds balanced in your system. Now, whenever you want to fine-tune your subwoofer level you can simply use the HINT 6's front panel Sub Level control instead of walking over to your sub, bending down and reaching behind it to adjust its level control.

High and Low Pass Crossover Setup

The HINT 6 is equipped with adjustable low-pass and high-pass crossovers. Crossovers are filters that allow certain frequencies to pass while blocking other frequencies. A low pass filter permits only low frequencies to pass and blocks high frequencies. A high pass filter permits only high frequencies to pass and blocks low frequencies. 80 Hz is the best starting frequency for both the High Pass and Low Pass crossovers if you are using a subwoofer and are not certain where to set the crossover frequency. If you are not using a subwoofer, set the HINT 6 Preamp Output Crossover switch to its Off position. The crossover settings affect both the Speaker Outputs and the Preamp Outputs (both RCA and XLR).



Low Pass Crossover (Subwoofer RCA jacks and XLR Output)

The Low Pass crossover allows only low frequencies to be output from the HINT 6 Sub Output jacks. If your subwoofer has a built-in crossover that cannot be switched off, set it to its highest frequency to minimize the negative effects on bass response from filtering in the HINT 6 and again in the subwoofer.

High Pass Crossover (Left and Right Speakers and Preamp Outputs)

The HINT 6 High Pass Crossover for the Speaker Outputs and Preamp Outputs (both XLR and RCA) allows you to block low frequencies from going to your main L and R speakers. This can be particularly useful if you are using small speakers (typically with woofers of 6.5"/165mm or smaller) and you have a subwoofer. The most common settings are between 50Hz and 80Hz. If you are not using a subwoofer you will get better results by turning the HINT 6 High Pass Crossover off or setting it below 40Hz. If you want your L and R speakers to operate full range with no frequencies blocked set the High Pass crossover switch to its Off position.

Crossover Setup (Continued)...

Crossover On/Off Switches:

Sub Output Crossover Off

A full frequency range mono signal will be sent to the sub(s). You will need to use the crossover frequency controls that are built into your subwoofer.

Sub Output Crossover On

The point where the highest frequency going to the Sub(s) starts to roll-off is determined by the setting of the Low Pass frequency knob.

Preamp Output Crossover Off

Full Range signals will be sent to the left and right speakers and to the RCA and XLR Preamp Output jacks.

Preamp Output Crossover On

The point where the lowest frequency going to the left and right speaker terminals and the Preamp Output jacks starts to roll off is determined by the setting of the High Pass frequency knob.

Crossovers and the Bypass/Amp Input

The HINT 6 High Pass and Low Pass Crossovers are always off when its Bypass Input is selected. In this case, the high and low pass filters are not active because it is preferable to use the bass management you already selected in your surround sound receiver or processor's setup menu.

Where to Start with Crossover Settings

If you don't know where to set the High and Low Pass Crossovers, these settings are a good place to start. From here you can experiment until you find a combination that sounds best to you:

No subwoofer

- Set the High Pass Crossover switch to Off
- The Low Pass Crossover will not be used so this setting does not matter

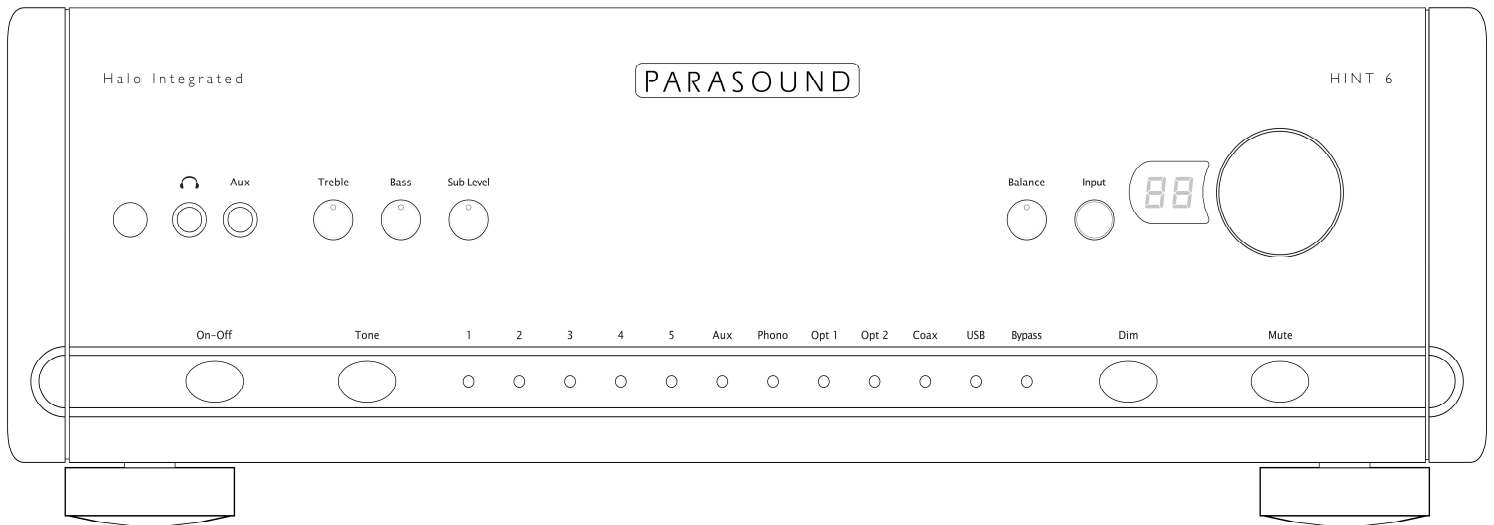
When using one or more subwoofers and your Left and Right speakers' woofers are 6.5" (165mm) or smaller

- Set the High Pass Crossover switch to On and the Frequency knob to 80 Hz
- Set the Low Pass Crossover switch to On and the Frequency knob to 80 Hz

When using one or more subwoofers and your Left and Right speakers' woofers are larger than 6.5" (165mm)

- Set the High Pass Crossover switch to On and the Frequency knob to 50 Hz
- Set the Low Pass Crossover switch to On and the Frequency knob to 50 Hz

Front Panel Controls



On-Off Button

Whenever the HINT 6 is turned on, the soft blue glow behind its On-Off button will change to red for a few seconds while its circuits stabilize. Then the red glow will be replaced by a brighter blue glow to indicate normal operation. If the glow remains red after turn on or while the amp is in use, it indicates that the protection circuits have been activated and no sound will be heard from the speakers. The most common cause for the On-Off button to remain red is a shorted speaker connection or overheating. See page 21 for more details on the protection circuit.

Headphone Output

The HINT 6 is equipped with a dedicated high quality current-feedback headphone amplifier based on the top-grade Texas Instruments TPA6120A. This superior design allows for an extremely high slew rate preventing odd order distortions which are responsible for listening fatigue. The virtually instantaneous response to musical dynamics doesn't raise the noise floor or degrade the s/n ratio like typical headphone amps. The headphone amp circuit was also designed with a low 10 ohms output impedance and high gain to drive headphones rated up to 600 ohms.

The headphone jack accepts a 1/8" (3.5mm) stereo mini plug. The Left and Right Speaker Outputs and the Preamp output jacks (RCA and XLR) are muted whenever a headphone plug is inserted into this jack. The L and R Record out jacks are not muted.

CAUTION: Please note where the volume knob is set before unplugging your headphones to avoid a sudden unexpected high level of sound that could damage your speakers.

Aux Input Jack

For your convenience the HINT 6 includes an Aux Input jack on its front panel to accommodate a portable MP3 player, tablet or mobile phone. Connect a cable with 3.5mm stereo plugs between the phone or portable player's headphone jack and the Aux input. The Aux input has an additional gain stage that boosts the input signal by 12dB so the volume level is consistent as you select other source components. For best results set your portable player's volume to at least 75% of its maximum.

Front Panel Controls (Continued)...

Bass and Treble Control Knobs

These offer precision adjustment of tonal balance. You will find that very slight adjustments can add a degree of warmth, richness, clarity and "air." However, larger adjustments may obscure musical detail, and even risk overloading your speakers. The Bass and Treble controls affect the Speaker Outputs, Preamp Outputs and the Subwoofer Outputs. The HINT 6 Bass and Treble controls are only active when the blue light surrounding the Tone button is illuminated.

Tone Button

By pressing this button, you can turn off the Bass and Treble tone controls, thereby completely bypassing the tone control circuitry. This will improve sonic purity by eliminating the small amount of noise and distortion inherent in tone control circuits. The tone controls can also be turned on and off from the remote control so you can switch between flat and your desired tone settings. The remote control does not adjust bass and treble tone controls. It only engages and disengages them.

Input Select Knob

Rotating the Input selector will cycle through all of the inputs. The front panel LED under each input name indicates when it is selected.

Sub Level Knob

The Sub Level control knob adjusts the subwoofer level. The sub level can be adjusted between -10dB and +10dB, relative to the L and R channels. When the Sub Level knob is in the 12 o'clock position the boost is 0dB. When you first setup your subwoofer you should set this control to 12 o'clock (0dB) and then play some music. Adjust the level control built into your subwoofer until it sounds balanced in your system. Now, whenever you want to fine-tune your subwoofer level you can simply use the HINT 6 front panel Sub Level control knob instead of walking over to your sub and bending over to adjust its level control.

Note: The Sub Level control knob cannot adjust the Sub level when the Bypass Input is selected.

Balance Knob

Adjusting left and right channel balance is helpful to compensate for speaker placement or room acoustics.

Volume Knob & Display

Your HINT 6 uses a high quality electronically controlled analog volume control IC. The volume level is displayed next to the volume knob and has a range of 0 to 99.

Mute Button

Pressing the Mute button once will mute the signal for all output jacks except the Record Out. The Mute button glow will change from blue to red when mute is engaged. Press the Mute button a second time to cancel mute. Mute is automatically canceled if you press the volume up or down buttons on the remote or if you change the volume from the front panel.

Dim Button

Press this button to select one of the volume display's two brightness levels.

Remote Control Functions

The HINT 6 remote control has a maximum range of approximately 20 - 25 feet (6 - 7.5 meters). Use only AA batteries in the handset and insert them according to the + and – polarity markings in the battery compartment.

On and Off Buttons

These buttons will turn the HINT 6 on and off.

Remote Backlight Button

Pressing this button backlights the buttons with a soft blue glow. The backlight will time-out after approximately 8 seconds or you can press the button a second time to turn back lighting off immediately.

Dim

Press this button to select one of the volume display's two brightness levels.

Mute Button

Pressing the Mute button once mutes the signal at all of the Out jacks except the Record Out. The Mute button on the front panel will illuminate red while mute is engaged. Press the Mute button a second time to cancel mute.

Volume ▲ and ▼ Buttons

These buttons increase and decrease the listening volume level. Volume level from 0-99 is indicated on a digit display next to the volume control knob.

Vol Mem (Volume Memory)

This button recalls the volume setting you have memorized. This is a convenient way to jump to your favorite volume setting. See page 20 for instructions on how to set the Vol Mem level. This is different than the turn on volume setting.

Tone On & Off Buttons

By pressing the Tone On button you engage the tone control circuit with the boost or cut determined by your settings of the front panel Bass and Treble knobs. By pressing the Tone Off button you will bypass the tone control circuits. This will improve sonic purity by eliminating the small amount of noise and distortion inherent in tone control circuits.

Source Input Buttons

Press the input button corresponding with the source that you wish to hear.

Vol Set (Volume Setup)

The Vol-Set button is used in conjunction with other buttons for setting the turn on volume and Mem (favorite) volume. See page 20 for instructions on how to use these features.

Turn On Volume & Favorite Volume Settings

Turn On Volume

You may wish your HINT 6 to come on to the same volume setting every time it is turned on. This can be particularly useful if you sometimes listen at high volume levels and you want to avoid a blast of sound the next time you turn it on. Or you may have a preferred listening level. To set the Turn On volume setting follow these steps:

Setting the Turn On Volume:

- 1) Adjust the volume to the level you wish to program
- 2) Press the "Vol-Set" button
- 3) Press the "On" button

Now every time the HINT 6 is turned on the volume will automatically be set to the level you have programmed.

Cancel the Turn On Volume Feature (Use Last Volume)

You may wish to cancel the "Turn On Volume" feature. In this case, when the HINT 6 turns on the volume will be at the same level as when it was turned off. Follow these steps to have the HINT 6 turn on to the level it was last used at:

Cancel the Turn On Volume feature:

- 1) Press the "Vol-Set" button
- 2) Press the "Off" button

Now when the HINT 6 turns on the volume will be set to where it was last used.

Memorizing a Favorite Volume Level (Vol Mem Button)

For your convenience, you can memorize your favorite listening level. Once memorized you can easily jump to this listening level by pressing the "Vol-Mem" button on the remote control. This is different than the "Turn On Volume" you may have already set.

Memorizing a favorite volume level:

- 1) Adjust the volume to the level you wish to be memorized
- 2) Press the "Vol-Set" button
- 3) Press the "Vol Mem" button

You can now jump to your favorite listening level by pressing the Vol Mem button at any time.

Power Amplifier Stage Protection Circuits

The HINT 6 protects itself from external fault conditions such as excessive heat, load impedance that is too low, or a short-circuited speaker connection or wire. Under such conditions the On-Off button will glow red. After you correct the fault, the HINT 6 will resume operation and the On-Off button will glow blue.

Current Overload (short circuit or load impedance below 1 ohm)

Specialized current sensors constantly monitor the current flow through the HINT 6's output stage transistors. If the current draw exceeds a predetermined safe level due to a load impedance below 1 ohm or a short circuit at the speaker terminals, the output protection relay will open immediately to prevent damage to the output transistors or other parts. This will cause the On-Off button to glow red. Immediately turn off the HINT 6 and disconnect the speakers from the Integrated's speaker terminals. Turn the unit back on to see if the On-Off button now glows blue, indicating the fault has been removed. Carefully check your speaker wires and speaker connections for a short circuit and correct the problem before attempting to resume listening.

Overheating Condition

If the unit overheats the On-Off button will glow red and the power amp section will shut down. If such a condition occurs you must provide better ventilation around the amplifier. The over-temperature protection can also be activated if you are trying to drive more than one pair of speakers for an extended time and/or at extremely high listening levels. If the protection circuit has been activated because of overheating, normal operation will resume after the unit has cooled down.

DC Servo Protection

The HINT 6 power amp stage is direct (DC) coupled from its input to its speaker terminals. Since direct current (DC) burns out speakers every power amplifier must have some way to ensure that DC never reaches the + or - speaker terminals. Most amplifiers simply use capacitors to block DC from another component or internal trim controls which a technician (only) can adjust to reduce DC offset. Unfortunately, trim controls can allow DC offset to creep up over time, and even the most expensive capacitors in the audio signal path attenuate bass response, placing a "veil" between you and your music.

Parasound power amplifiers overcome this problem by incorporating ingenious and fast-acting DC servo circuits that monitor the audio signal (but are not actually *in* the audio signal path) to keep DC offset at the HINT 6 output close to zero, without using coupling and blocking capacitors. This advanced circuitry never needs adjustment or maintenance and the results are startling clarity, freedom from listening fatigue, and formidable bass response.

Faulty source components and particularly vacuum tube preamps with leaky output coupling capacitors can have a large DC offset in their outputs that exceeds the capabilities of the DC servos. In this case the protection circuit will activate. If the HINT 6 On-Off button glows red, try disconnecting your source components after trying the other two steps listed above.

Contact Parasound

If you believe you have confirmed the above three fault conditions are not present and the On-Off button still glows red it could indicate an internal problem. Please contact Parasound's Technical Service Department.

Problems and Remedies

Why is there no sound from the speakers?

- Check that input and output cables are secure at both ends.
- Make sure your HINT 6 is switched to the correct input.

The HINT 6 won't turn on

- Is the AC mains power live? You should see a faint blue glow around the On-Off button even when the unit is turned off.
- Make sure the rear panel master power switch is turned on.

The On-Off button is glowing red

- The unit's protection circuits have been activated, see page 21 for more details.
- Check the speaker wire and connections for a short circuit.
- If the unit feels hot allow it to cool down and provide more ventilation for the unit.

I can hear a background hum from the speakers

- Try unplugging the incoming cable TV wire from the cable box. If the noise goes away then you need a cable TV ground loop isolator.
- Read the section on ground loops in this manual on page 23.
- Move audio cables and AC cords away from each other (while power is off).
- Try to route audio cables and AC cords perpendicular to each other (while power is off).
- If the HINT 6 is rack mounted use insulating shoulder washers.
- Insure that the power amps and the HINT 6 are plugged into the same AC outlet.
- Try plugging your subwoofer into the same AC mains outlet as the HINT 6.
- The turntable ground wire must be attached to the HINT 6 GND terminal.

When I use the Bypass/Amp Input the sound is very loud and cannot be turned down.

The Bypass/Amp input should never be connected directly to a source component without a volume control (CD, DVD, Tape deck, etc.). It should only be used in conjunction with a surround sound receiver or processor. Use the volume control on the surround sound receiver or processor to adjust the volume level when the Bypass/Amp Input is selected.

What is the Bypass/Amp Input?

The Bypass/Amp input jacks are used to incorporate the HINT 6 into a surround sound system. This enables you to use the power amplifier built into the HINT 6 to drive your Left and Right front speakers with both the stereo sources connected to the HINT 6 and with your surround sound system.

Ground Loops - Eliminating Hum and Buzz

Audible hum and buzzing noises in a system are usually related to issues with the component grounds. Ground (sometimes called common) is a point of reference for voltages in virtually all audio and video components. Ground is supposed to remain at zero volts while the audio signal swings positive (voltage above ground) and negative (voltage below ground). If the ground isn't at zero, there can be an audible 60 Hz hum (or 50 Hz hum in regions with 50 Hz AC). The harmonics of these frequencies (120 Hz, 240 Hz, 480 Hz or 100 Hz, 200 Hz, 400 Hz) may add buzz in addition to the hum.

The ideal of a zero-voltage ground for all the components in a system is practically impossible, because some resistance between the ground points of different components is inevitable. By keeping components close together with their power cords plugged into a common AC outlet or power strip, you'll avoid the problems created by resistance in the house's wiring.

Hum and buzz is also caused when unwanted voltage flows through multiple component ground points called ground loops. Here are three tips to avoid ground loops:

- 1. Your Cable TV receiver box might require a Cable TV ground isolator. To determine if this is the case, unplug your incoming cable signal and see if the buzz/hum goes away.**
2. Plug your subwoofer and amplifier(s) into the same outlet as the HINT 6.
3. When rack mounting, always use the insulated "shoulder" washers. These break the ground loops caused by metal-to-metal contact between the rack, the components, and their rack-mount bolts.

Maintaining Your HINT 6

Your HINT 6 requires no periodic maintenance and has no user serviceable parts inside. To avoid risk of electric shock do not remove the top cover. To keep it clean use only a soft cloth moistened with a few drops of clear water or Windex. Never use any solvents or abrasives. The remote control handset AA batteries should be removed whenever it will be unused for an extended period. Remove the battery cover annually to inspect and remove leaking batteries.

Assistance or Warranty Repair

Repair or Service

Call your Parasound dealer first. If the dealer can't help you with your problem we encourage you to call Parasound's Technical Service Department at **415-397-7100**, Monday to Friday, 8am-4pm Pacific Time. We can suggest other diagnostic tests you can easily perform. If we determine that your HINT 6 should be returned to Parasound or an Authorized Parasound Warranty Center for inspection and possible servicing, we will provide the location of a warranty center near you or shipping instructions for the unit's return to Parasound.

Before You Return Any Unit to Parasound for Service

Before you send your unit to Parasound, you will need to obtain a specific Return Authorization (RA) number and shipping instructions from Parasound's Technical Department. The RA number must be clearly marked on the outer carton. Use the original factory packing materials and arrange adequate insurance to cover its value. You must include a copy of your purchase receipt, since this document establishes the validity of this unit's warranty. Warranty repairs are only performed by Parasound or Parasound Authorized warranty centers when your purchase receipt is from a Parasound Authorized Dealer or Parasound Authorized Reseller.

Shipments Will Be Refused by Parasound Under the Following Conditions:

1. Unit was sent without the Parasound-assigned RA number marked on the carton.
2. Unit was sent in an unsuitable shipping carton and packing inserts and is likely to have been damaged in transit.
3. Unit has inadequate packing materials and is likely to have been damaged in transit. Wrapping the HINT 6 with bubble wrap will not protect it during shipment.
4. Unit was shipped collect for shipping charges. We do not accept collect shipments.
5. Unit was shipped via the US Postal Service.
6. Unit was sent to an address other than the address instructed by our Technical Department.

Warranty Repair

Please read your accompanying Parasound Limited Warranty carefully to understand the applicable rights and limitations. This section provides instructions for obtaining repairs, both for units covered under the Parasound Limited Warranty and for units or situations which are outside the Warranty. The complete warranty can be found at www.parasound.com.

Unit is not eligible for repair under the terms of the Parasound warranty if:

1. Unit was not purchased from a Parasound Authorized Dealer.
2. You do not have the original bill of sale or sales receipt from a Parasound Authorized Dealer.
3. You are not the original owner. The Parasound warranty is not transferable.
4. Unit's serial number was removed, modified, or defaced.
5. Unit shows evidence of abuse and/or misuse.
6. Unit was modified in any way.
7. A prior repair was attempted by an unauthorized repair station.

Specifications

Power Output - Both channels driven (0.05% THD, 20Hz - 20kHz)

160 watts x 2 @ 8Ω RMS
240 watts x 2 @ 4Ω RMS

Power Output - Both channels driven (0.9% THD, 20Hz - 20kHz)

180 watts x 2 @ 8Ω RMS
270 watts x 2 @ 4Ω RMS

Current Capacity

45 amps peak per channel

Frequency Response

10Hz - 100kHz, +0/-3 dB
20Hz - 20kHz, +0/-0.5 dB

Total Harmonic Distortion (THD)

< 0.01 %, average listening levels
< 0.05 %, 160 watts x 2 @ 8Ω

Interchannel Crosstalk

> 70dB at 20kHz
> 78dB at 1kHz

Signal to Noise Ratio - IHF A-weighted

Line in: - 103 dB (input shorted)
Digital in: - 106 dB

Amplifier Damping Factor

> 800 at 20Hz

Preamplifier Stage Input Sensitivity

300mV in for 1V at Preamp Output jacks
Total Preamp Stage Gain: 10 dB
Max Output Unbalanced: 7V
Max Output Balanced: 9V

Power Amplifier Stage Sensitivity

1V at Bypass/Amp In for 28V at Speaker Out
Total Amp Stage Gain: 28 dB

Phono Stage Sensitivity / Input Impedance

MM: 41 dB / 47kΩ
MC: 54 dB / 47kΩ or 100Ω

High & Low Pass Crossover Slope

12 dB per octave

Supported DAC Sampling Rates

USB: up to 384 kHz / 32-bit PCM
DSD Native: DSD 64, DSD 128, DSD 256
DSD over PCM (DoP) at 384 kHz

Coax/Optical: up to 192 kHz / 24-bit PCM

Digital to Analog Converter

ESS Sabre³² Reference ES9018K2M
384 kHz / 32-bit

USB 2.0 Controller

Savitech SA9227, 384 kHz / 32-bit

Headphone Amplifier

Texas Instruments TPA6120A
Output Impedance 10 ohms

XLR Pin Identification

1 = Ground (Shield)
2 = Positive
3 = Negative (Return)

Input Impedance

Unbalanced: 24 kΩ
Balanced: 100 kΩ per leg

Preamplifier Output Impedance

Unbalanced: 100Ω
Balanced: 470Ω per leg

Dimensions

Width: 17^{-1/4}" (437 mm)
Depth: 16^{-1/4}" (413 mm)
Depth, with cables 17^{-1/4}" (437 mm)
Height, with feet: 5^{-7/8}" (150 mm)
Height, without feet: 5^{-1/4}" (133 mm), 3U

Net Weight

33 lb. (15 kg)

Shipping Weight

45 lb. (20.4 kg)

Power Requirement

Standby: 0.5 watts
Idling power: 70 watts
Maximum: 750 watts
110-125 VAC 60Hz or 220-250 VAC 50Hz
AC mains voltage is set on rear panel

Specifications and features subject to change or improvement without notice.
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PARASOUND

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