

Wyred 4 Sound

OWNER'S MANUAL

SX SERIES

Power Amplifiers

Get Wired, **WYRED 4 SOUND**

WYRED 4 SOUND
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SX-SERIES v2.1

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Warranty Registration

****IMPORTANT****

Please take a moment to complete the warranty registration form located on our website. You **MUST** complete and submit this form within 30 days of purchase to activate your warranty.

Unpacking

The SX series packaging contains:

- 1 - Owners Manual
- 1 - 6' AC Power Cable
- 1 - 6' DC Trigger Cable
- 1 - SX series mono amplifier

Carefully inspect your new amplifier for any shipping damage. Please contact your dealer, or Wyred 4 Sound directly if you notice any shipping damage or for anything you suspect is missing from your shipment. All packaging cartons will easily fold flat for convenient storage, and should be stored for future use should there be one.

Introduction

Wyred 4 Sound amplifiers are a perfect example of what is accomplished when practical engineering and knowledge are combined. All components are selected for the greatest possible functionality, durability, and quality. Wyred 4 Sounds' excellence in engineering will provide you with first-class performance and years of satisfaction.

Wyred 4 Sound audio products are designed to bring you closer to the beauty of your music. Our goal is to bring the performance of the recording right into your home with as little change as possible. As you can identify, our drive is focused on the customer. We know what others have to offer, so you can be sure that our value will be substantially more than theirs to keep the American made products desirable. We greatly appreciate your purchase and expect your complete satisfaction. Wyred 4 Sound hopes that you will continue to grow with us as we continue to provide the quality and functionality that you can learn to depend on.

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Design features

The SX series amplifiers are a mono amplifier design that will produce peaks in excess of 125W/330W/625W with 8 ohm loads and 220W/625W/1225W with 4 ohm loads per channel depending on model. Each of the mono amplifiers are powered from their own dedicated power supply. The compact and effective design is made easy thanks to the switching power supply that powers the bridged switching output stage derived from ICEpower™ technology.

In comparison with other products similarly provided by many companies, our product is superior. The SX series amplifiers contain an input stage which we designed to act as a buffer between your amplifier and your input source. Our proprietary FET input stage couples your gear directly to produce an input impedance of 60.4K ohms which makes the integration of preamplifier selection endless. Other companies connect the input and output connectors directly to the amplifier module which will not properly mate with select preamp sources because of the low input impedance, and will cause less than optimal sound.

Front panel operation

As you can see, the front panel doesn't offer any sort of power switch or function buttons. The window that is located in the middle of the front panel will appear to be blue when it's in operation mode. There is also a potentiometer that can be accessed from the bottom of the unit to control the brightness of the light bar. A small screwdriver like what is used on sunglasses must be used to adjust the brightness. Slowly adjust the turn-pot until the desired brightness is achieved.

Powering your amplifier

When power is applied to the amplifier and the switch located on the rear is in the on position, the amplifier will turn on. If you would like to manually turn the amplifier on and off, this switch is where you would want to do so. Leaving your amplifier on all the time will not hurt it, shorten the lifespan, or degrade the future sound. The SX series amplifiers make absolutely zero noise internally and to connected gear and shouldn't be in any way noticeable of its operation other than the blue light bar on the front panel. To prevent power surges, we recommend using quality surge suppressor equipment. Turning the switch off on the rear of the unit will also protect against surges, and spikes should some occur without proper protection.

Dc trigger

The SX series mono amplifiers are equipped with a 12VDC remote trigger input. You can connect the 12V trigger output of your preamp or source to the 12V trigger input on the amplifier for an easy remote power up every time. When the unit is in standby via the remote trigger, the amplifier is powered up, but disabled. The current draw in standby mode is less than 5W per channel, and shouldn't amount to anything on your electricity bill. The trigger input will work from 5-25V, so there shouldn't be any issue with the voltage tolerance on source equipments outputs rated for 12V.

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Light bar brightness

The light bar can be adjusted for brightness through a clearance hole on the bottom of the chassis. As a factory standard, the amplifiers are configured for maximum brightness. One can dim the light bar by using a miniature flat head screwdriver (sunglass repair driver), and rotating the potentiometer on the bottom of the chassis. The light bar to be turned completely off if so desired by rotating the potentiometer in the opposite direction as delivered. Also having multiple amplifiers may require the units to be adjusted for common brightness between units.

Getting connected

CAUTION: Disconnect the power cord or put the power switch in the off position before making any connections to your amplifier to minimize the risk of electric shock and possible loudspeaker damage. Power your amplifier **after** all final connections have been made. **NOTE:** This is a balanced amplifier and you should **NEVER** connect either output to a ground point! Doing so may cause damage to your amplifier and/or connected gear.

The binding posts that you will find on the ICE CUBE are made of nothing but the best. Each WBT binding post is made of highly ductile “OFC” copper alloy (52% Cu). Both clamping nuts are built out of one piece, and offers excellent grip. All metallic surfaces offer a 24-carat gold-plating which is Ni-free, Au 0.3um, non magnetic surfaces. The binding post will accept 4mm banana plugs, spades of 6 and 8mm, and crimped cable ends up to 10 AWG. The easiest connection is made with banana plugs, but be sure that you use the highest quality that you can find. Make sure that the banana plugs fit snugly into the terminals. Some inexpensive banana plugs can cause a highly resistive connection which can result in a noticeably higher distortion output to the connected speakers.

The RCA (unbalanced) jack is made with high quality gold plated copper, and should be properly connected with interconnects of the same value. The Neutrik XLR (balanced) connectors are the finest balanced connector on the market, and are the best possible option for connecting your amplifier to your preamplifier.

Using the new W4S power and interconnect cables would be a great way to ensure your system is closer to what we call “our reference”. We are now offering superior cables at an affordable rate that anyone can afford. For more information, please visit the web-site, or send an email to support@wyred4sound.com

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Input stage

One of the benefits of the SX series amplifiers is the input stage. The proprietary dual, fully balanced FET input stage offers unparalleled integration with any source. The input stage helps your preamp drive your amplifier with ease. What happens with our competitors units is that the input signal becomes hard to drive at times, and some sources start to clip at that point. The signal that causes the most “stress” (peaks) is what will end up being chopped up, or incomplete. The input stage will provide a constant 60.4k ohm load on the source.

XLR / RCA switch

The XLR/RCA switch on the rear of the unit completely isolates the unbalanced input from the balanced input. The separation of all connections is to eliminate any possible combination of signals if both happen to be connected simultaneously. The input to the amplifier can only be selected by either the XLR or RCA input at any given time.

Short circuit / over current protection

Each mono block amplifier has it’s own over-current and thermal protection. Before any damage is done by a short circuit, over-current, or over temperature, the amplifier will go into protect mode. When this happens the output is immediately turned off and the music will turn silent. The best procedure to take, should something like this happen is to turn the amplifier off immediately. Determine what has caused the problem. If the amplifier is beyond operating temperature, give it a chance to cool, then power it back up. If the amplifier is not beyond normal operating temperature, check all connections for possible shorts. If you can’t find any reason for the problem, disconnect everything from the unit and power it up. If the unit powers up, but no sound is passing through when you connect it your system, your unit may need to be repaired.

“Break-in” period

Your new SX series amplifier will deliver outstanding performance right out of the box. However, you should plan on improvements as it reaches its’ normal operating temperature and once all of the components have a chance to “settle in”. Our experience has shown that the amplifier has reached its’ potential after the initial 300 hours. After the initial break in period, your amplifier will be ready to perform within minutes of powering it on. Leaving the amplifier on all the time is recommended for optimal sound and will not shorten it’s life, nor will it degrade the sound.

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Troubleshooting

No sound?

If you have your input source and speakers connected, and you can't get music to play, check the following:

1. Verify that the power cord is plugged in and that the outlet is powered up.
2. Check the front panel and make sure that the blue light is on.
3. If the front panel is blue and there still isn't any sound, put your ear next to the tweeter of your speaker and have someone turn your amplifier off then on again at the rear switch. You should barely hear a click when the amplifier is turned on and off
4. If you can hear the amplifier turn on and off, but there still isn't any sound, make sure you are getting a signal to it.
5. Verify that the input switch is selecting the proper input for what you have connected.
6. If the switch is in the proper position and still no sound, then try replacing the interconnects to verify the connection between the amplifier and source.
7. Verify that the interconnects are conducting by replacing them on a different set from a connection that you know works.
8. Now that you have interconnects that you know work, try connecting the amplifier to another source that you know has worked in the past.

If you are still experiencing problems after checking all possibilities and using the resources provided please contact your dealer or Wyred 4 Sound directly for further assistance.

Got hum?

Is there too much hum or hiss coming out of your speakers? If you put your ear right next to the tweeter of your speaker, you should **barely** be able to hear any hiss from the amplifier in normal conditions. If the noise is **easily** heard at a distance, try putting your source on mute, or pause. If this eliminates the noise, it's inherent in the source or preamplifier. If your preamplifier doesn't disconnect the outputs when muted, and the noise still exists while muted, try disconnecting the inputs to the amplifier. If the noise is still there when the inputs are disconnected, and the inputs are shorted with shorting plugs, then your amplifier may need some servicing. If the noise is not there when the inputs are disconnected, try putting a cheater plug (ground isolator) on one or all components in order to eliminate a ground loop issue. **NOTE:** We only recommend using a ground isolator for trouble shooting purposes only, and should be removed after the problem has been found. Having the ground of any unit disconnected can potentially create a dangerous situation.

An easy way to locate a noisy component is to replicate the problem then start disconnecting components one at a time, starting with a source. Digital cable boxes and satellite receivers are notorious for making ground loop hum. This is normally caused by the potential difference on the input wire (shield side) for either of the boxes when referenced to ground. If this is the case in your system, the installation of an isolating transformer would be the easiest solution and are normally readily available at your local electronics parts store. A better solution is a power strip with grounded and surge protected F-connectors that you can pass a signal through.

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Amplifier faults

Check the outputs and speaker connections to make sure they aren't shorted to each other or ground. If the amplifier faults while playing music loud, you may need a bigger amplifier for your taste or system. If it faults without playing to loud, your speakers may be too demanding for what you have and may require a higher wattage amplifier. Contact your dealer or Wyred 4 Sound for other options you can explore.

Warranty coverage

Wyred 4 Sound's warranty obligations are limited to the terms set forth below:

Wyred 4 Sound, as defined below, warrants this Wyred 4 Sound-branded hardware product against defects in materials and workmanship under normal use for a period of **FIVE (5) YEARS from the date of retail purchase by the original end user purchaser ("Warranty Period")**. If the product has been transferred from the original owner to a second hand owner it has a **ONE (1) YEAR warranty, valid from the original date of purchase by the original owner**. If a hardware defect arises and a valid claim is received within the Warranty Period, at its option, Wyred 4 Sound will either (1) repair the hardware defect at no charge, using new or refurbished replacement parts, or (2) exchange the product with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product. Wyred 4 Sound may option that you replace defective parts with new or refurbished user-installable parts that Wyred 4 Sound provides in fulfillment of its warranty obligation. A replacement product or part, including a user-installable part that has been installed in accordance with instructions provided by Wyred 4 Sound, assumes the remaining warranty of the original product or ninety (90) days from the date of replacement or repair, whichever provides longer coverage for you. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes Wyred 4 Sound's property. Parts provided by Wyred 4 Sound in fulfillment of its warranty obligation must be used in products for which warranty service is claimed. When a refund is given, the product for which the refund is provided must be returned to Wyred 4 Sound and becomes Wyred 4 Sound's property.

EXCLUSIONS AND LIMITATIONS

Wyred 4 Sound does not warrant that the operation of the product will be uninterrupted or error-free. Wyred 4 Sound is not responsible for damage arising from failure to follow instructions relating to the product's use. This warranty does not apply: (a) to damage caused by use with non-Wyred 4 Sound products; (b) to damage caused by accident, abuse, misuse, flood, fire, earthquake or other external causes; (c) to damage caused by operating the product outside the permitted or intended uses described by Wyred 4 Sound; (d) to damage caused by service (including upgrades and expansions) performed by anyone who is not a representative of Wyred 4 Sound or a Wyred 4 Sound Authorized Service Provider; (e) to a product or part that has been modified to significantly alter functionality or capability without the written permission of Wyred 4 Sound; (f) if any Wyred 4 Sound serial number has been removed or defaced.

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, STATUTORY, EXPRESS OR IMPLIED. AS PERMITTED BY APPLICABLE LAW, WYRED 4 SOUND SPECIFICALLY DISCLAIMS ANY AND ALL STATUTORY OR IMPLIED WARRANTIES, INCLUDING, AND WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS. IF WYRED 4 SOUND CANNOT LAWFULLY DISCLAIM STATUTORY OR IMPLIED WARRANTIES THEN TO THE EXTENT PERMITTED BY LAW, ALL SUCH WARRANTIES SHALL BE LIMITED IN DURATION TO THE DURATION OF THIS EXPRESS WARRANTY AND TO REPAIR OR REPLACEMENT SERVICE AS DETERMINED BY WYRED 4 SOUND IN ITS SOLE DISCRETION EXCEPT AS PROVIDED IN THIS

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WARRANTY AND TO THE EXTENT PERMITTED BY LAW, WYRED 4 SOUND IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE; LOSS OF REVENUE; LOSS OF ACTUAL OR ANTICIPATED PROFITS (INCLUDING LOSS OF PROFITS ON CONTRACTS); LOSS OF THE USE OF MONEY; LOSS OF ANTICIPATED SAVINGS; LOSS OF BUSINESS; LOSS OF OPPORTUNITY; LOSS OF GOODWILL; LOSS OF REPUTATION; LOSS OF, DAMAGE TO OR CORRUPTION OF DATA; OR ANY INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE HOWSOEVER CAUSED INCLUDING THE REPLACEMENT OF EQUIPMENT AND PROPERTY, ANY COSTS OF RECOVERING, PROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED OR USED WITH WYRED 4 SOUND PRODUCTS AND ANY FAILURE TO MAINTAIN THE CONFIDENTIALITY OF DATA STORED ON THE PRODUCT. THE FOREGOING LIMITATION SHALL NOT APPLY TO DEATH OR PERSONAL INJURY CLAIMS. WYRED 4 SOUND DISCLAIMS ANY REPRESENTATION THAT IT WILL BE ABLE TO REPAIR ANY PRODUCT UNDER THIS WARRANTY.

Obtaining warranty service

Please access and review the resources referred to in the documentation accompanying this hardware product before requesting warranty service. If the product is still not functioning properly after making use of these resources, please contact the Wyred 4 Sound representatives or, if applicable, a Wyred 4 Sound Authorized Service Provider located using the information provided in the documentation. A Wyred 4 Sound representative or Wyred 4 Sound Authorized Service Provider will help determine whether your product requires service and, if it does, will inform you how Wyred 4 Sound will provide it. Wyred 4 Sound or its Wyred 4 Sound Authorized Service Providers will provide warranty service on products that are tendered or presented for service during the Warranty Period, as permitted by law. **Wyred 4 Sound is not responsible for freight charges to our facility for warranty repairs. We will cover return freight charges (domestic only) if the unit is found to be faulty and still within the warranty coverage period. You will be responsible for delivery and return shipping and handling charges if the product cannot be serviced in the country it is in.** In accordance with applicable law, Wyred 4 Sound may require that you furnish proof of purchase details and/or comply with registration requirements before receiving warranty service. Please refer to the accompanying documentation for more details on this and other matters on obtaining warranty service.

Recovery and reinstallation of system and application software and user data are not covered under this Limited Warranty.

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Service

In the unlikely event there is a problem with your Wyred 4 Sound component, please contact your dealer, distributor, or Wyred 4 Sound to discuss the problem before you return the component to our manufacturing facilities for repair. Products shipped to the factory will be refused and returned freight collect if not accompanied by a Wyred 4 Sound Service Department issued return authorization number (RA Number). Return authorization numbers must be prominently displayed on the outside of the box and an accompanying letter describing the problem and re-listing the RA number must be inside the box to qualify for service.

To contact the Wyred 4 Sound Service Department:

TELEPHONE (805) 466-9973
HOURS M/F 8:00 am to 5:00 pm PST
FAX (805) 462-8962
E-MAIL support@wyred4sound.com
WEBSITE <http://www.wyred4sound.com>

If you are located in the United States use the following procedure:

1. Obtain a Return Authorization Number (R/A number) and shipping address from the Wyred 4 Sound Service Department.
2. Insure and accept all liability for loss or damage to the product during shipment to the Wyred 4 Sound factory and ensure all freight (shipping) charges are prepaid.

The product may also be hand delivered to the California facility if arrangements with the Service Department have been made in advance. Proof of purchase from an authorized Wyred 4 Sound dealer, distributor or agent will be required for warranty validation at the time of hand delivery. Use the original packaging to ensure the safe transit of the product to the factory, dealer, or distributor. Wyred 4 Sound may, at its discretion, return a product in new packaging and bill the owner for such packaging if the product received by Wyred 4 Sound was boxed in nonstandard packaging or if the original packaging was so damaged to the point it was unusable. If Wyred 4 Sound determines that new packaging is required, the owner will be notified before the product is returned. To purchase additional packaging, please contact your authorized Wyred 4 Sound dealer, distributor, or the Wyred 4 Sound Service Department for assistance.

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Service procedure

If you are located outside of the United States use the following procedure:

1. Fill out the Service form at the following address and be sure to document all details:

<http://www.wyred4sound.com/Service.html>

2. If service is approved we will issue a Return Authorization Number (R/A number) from the Wyred 4 Sound Service Department. Be sure to confirm the current shipping address.

3. Insure and accept all liability for loss or damage to the product during shipment to the W4S facility and ensure all freight (shipping) charges are prepaid.

If you feel your authorized dealer or distributor is either unwilling or unable to service your Wyred 4 Sound products, please contact our service department at customersupport@wyred4sound.com or at the above contact numbers to discuss and resolve the situation.

Voltage changes to match your country's voltage and frequency requirements to your Wyred 4 Sound product are possible only at the time of purchase. The SX series amplifier series is set to a fixed voltage to match your country's requirements and may not be easily changed.

Your Wyred 4 Sound product serial number is:

Your dealer or distributor information:

Your purchase information:

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Product specifications

	SX-250	SX-500	SX-1000
Typical THD+N 8Ω (10W out)	0.009%	0.0027%	0.0055%
Power Output 8Ω @ 0.2% THD+N	100W	250W	570W
Power Output 8Ω @ 1.0% THD+N	125W	330W	625W
Power Output 4Ω @ 0.2% THD+N	195W	550W	1,140W
Power Output 4Ω @ 1.0% THD+N	220W	625W	1,225W
IMD (CCIF)	0.0005%	0.0005%	0.0005%
Transient Intermodulation (TIM)	0.004%	0.003%	0.005%
Output Idle Noise	90uV	80uV	80uV
Efficiency (4Ω)	79% @ 200W	81% @ 500W	79% @ 1000W
Efficiency (8Ω)	78% @ 100W	78% @ 200W	78% @ 500W
Frequency Response 20Hz--20kHz	± 0.4db	± 0.3db	± 0.4db
Lower Bandwidth	3.5Hz all loads	3.3Hz all loads	3.3Hz all loads
Balanced Input Impedance	60.4kΩ	60.4kΩ	60.4kΩ
Unbalanced Input Impedance	60.4kΩ	60.4kΩ	60.4kΩ
Dynamic Range	110db	115db	118db
Gain	27db	27db	27db
Sensitivity	1.28V	2.1V	2.95V
Output Impedance	10mΩ	5mΩ	5mΩ
Min Load	3Ω	2Ω	2Ω
Damping Factor (100Hz 8Ω)	4000	2000	2000
Max Output Current	11A	35A	40A

Check out the latest news, products and services!

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