

HIGH PERFORMANCE MARINE AUDIO

SINISTER SDX 2500

CLASS D MONO BLOCK SUBWOOFER AMPLIFIER

OWNER'S MANUAL





SINISTER SDX 2500
CLASS D MONOBLOCK SUBWOOFER AMPLIFIER



CONGRATULATIONS!

Thank you for purchasing the Wet Sounds Sinister™ Series amplifier. Wet Sounds Sinister series of marine amplifiers represents the pinnacle in 12 volt amplifier design.

The Sinister™ amplifiers are the highest power to size amplifiers anywhere in the world for marine use. The Sinister™ amplifiers use superior performance circuitry by utilizing Wet Sounds exclusive Class D technology combined with Wet Sounds MAXED™ Power supply. The MAXED power supply is a patent pending technology designed to provide high efficiency levels never thought to be achievable in a mobile audio amplifier. What this means to you. Less current draw, less strain on the electrical system, less generated heat. All this results in more play time!

All Sinister amplifiers feature a fully conformal coated 4 layer pcb board, single side power, speaker and input section, and top mounted controls with removable cover. Sinister™ amplifiers have a back lit Wet Sounds shield logo with selectable illumination for red, white or blue that can be mounted horizontally or vertically for flexible amplifier placement.

The Sinister™ amplifiers are not only extremely powerful but also intelligent with a built in microprocessor controller for overvoltage protection, undervoltage protection, DC offset and speaker short protection, as well as thermal rollback to ensure consistent play in the harsh marine environment. One of the most amazing aspects of the Sinister™ amplifiers design is the efficiency rating. The SDX2500 achieves an efficiency rating at full 4 ohm rated power of over 87%. This translates into less current draw and less generated heat. Over twice that of a conventional class AB amplifier.

WARNING

We build all Wet Sounds™ products to play at high volumes for extended periods of time. Your ears however are not designed for high volume listening. This product can easily generate high volumes that can permanently damage your hearing. We urge you to limit your exposure to very high volume sound. You may also find your state has laws governing the volume of an audio system. Please be aware of all local and state laws in your area.

A Properly tuned and operated audio system will deliver years of enjoyment when used properly.

INSTALLATION INSTRUCTIONS

Wet Sounds™ Marine Amplifiers are designed for easy installation in your boat. To ensure proper installation of your new purchase please follow all the suggestions listed below.

If you do not have experience with marine electrical and mechanical systems, contact a professional installer. Paying a qualified installer is almost always cheaper than paying a dealership to repair your boat.

LOCATING THE AMPLIFIER

The amplifier must be securely mounted to a solid surface. Please select a dry location to mount your amplifier. All Wet Sounds products are designed to operate in humid environments however direct contact with water can damage the electronics. Do not mount the amplifier to any area that may have excessive vibration (like a subwoofer enclosure). Position the amplifier in an area that receives sufficient airflow for proper heat dissipation.

SUPPLYING ENOUGH POWER

The Laws of Nature

Your amplifier does NOT make power; it converts power, or current, from your boats electrical system and converts it into high power musical energy. If the amp can't get all the power it needs it will not produce its full output. Your Wet Sounds™ amplifier will produce full output longer than other amplifiers on the market today. Should your voltage or current drop too low the amplifier will drop below the rated output.

Make sure your boats charging system is in good working order. Any high performance audio amplifier will increase the demand on your alternator and battery. If you are unsure have you charging system checked system testing by a professional technician.

RUNNING THE WIRE CABLES

****Always keep the signal cable and the power cables separated to prevent the possibility of inducing noise into the system****

Carefully run the power and the signal cables through the boat. Always keep all the wire tight and tied down to prevent the power wire from shorting and reduce the risk of fire. A 1/0 AWG or larger wire should be used for power and ground connections. We recommend a fuse to be installed on the power wire within 18 inches of the battery for safety.

Maxed Power Supply

Wet Sounds Sinister amplifiers use a unique patent pending transformer design we call MAXED that is the first of its kind in the mobile/marine audio market. Making the Sinister amplifiers one of the most efficient amplifiers ever built. Wet Sounds took it a step farther by through bolting the transformer to the heat sink and not just the pcb, resulting in a heat sink that dissipates heat from the output side as well as the transformer. This advanced construction method also results in a more robust build method for the rugged marine market.

Thermal Rollback Technology

Wet Sounds thermal rollback circuit monitors the Sinister™ amplifiers temperature and adjusts the amplifiers output. The Sinister amplifiers are extremely efficient. However, marine use is the most demanding application of a 12 volt amplifier. There are times when extended listening combined with high ambient temperatures and a tight mounting can make even the most efficient amplifier work overtime. We designed the thermal rollback circuit to be automatic and seamless. The amplifier will roll its peak power output so it can lower its operating temperature. What this means for you is more play time and not having your amplifier go into thermal protection right when they party is going great.

Advanced Intelligent Microprocessor Control

Think of it as a tiny supercomputer constantly monitoring everything and protecting itself from harm. The Microprocessor will put the amplifier into protection if it senses an over voltage situation or a under voltage situation or DC offset. If you damage a speaker or have a shorted wire. The amplifier will also put itself into protection. And if you go past the thermal rollback circuit, the amplifier has a second level of protection from heat and will shut itself down.

Top mounted crossover controls

Wet Sounds designed the Sinister amplifier from the ground up as a true marine amplifier. Marine amplifiers are mounted to amp panels in a boat. Making it harder to access the controls. The sinister amplifiers have all the controls on the top for easy access and adjustments once the amplifier is mounted.

FEATURES

Massive Four Layer PC Board.

The Sinister amplifier uses a four layer PCB to make a solid mounting platform and robust design for the power they can produce and the rugged environment.

Remote Level Control

Remote Level Control gives you the ability to control the output level of the SDX 2500.

Top mount back lit 3 way LED Badge Light: Red/White/Blue. Horizontal or Vertical Placement

The Wet Sounds shield logo badge not only looks great but provides the amplifier status through its acrylic spacer.

Two screws hold the badge onto the cover plate. With the option for horizontal or vertical placement. This is perfect for those installations where you are not having to re wire or change the wiring to get the amplifiers logo straight.

Fully Balanced Inputs

Fully Balanced inputs for better sound quality with less noise.



Marine Compliant

Rubber gasket covering crossover controls designed to keep moisture away. Conformal coated pcb for protection against moisture. Completely sealed design for no water intrusion.

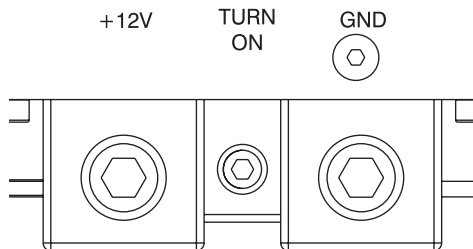
Built In Raised Feet

The sinister amplifiers were designed with integrated raised side feet. This gives easy access to pull wire under the amplifier. This also raises the amplifier off the boats panel or carpet allowing air to circulate.

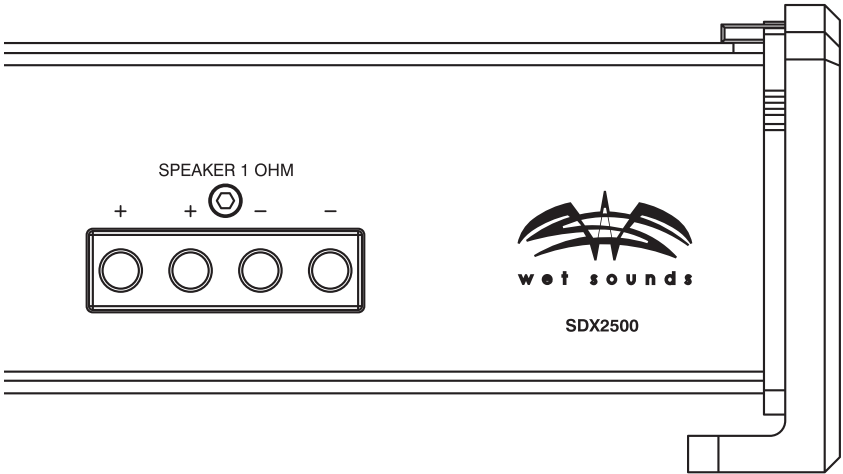
POWER CONNECTIONS

To gain access to all connections, first remove the 4 2.5mm Allen head screws and remove the top cover. The top cover can be replaced after all connections and adjustments are complete.

The Sinister SDX2500 is designed for 1/0 AWG Power wire (+12 V) and Ground wire (GND). You will need to prepare the wire by remove 5/8" on the protective shielding on the power and ground wire. Then take a Phillips head tool and back out the screws on the terminal block +12 volt wire into the +12V side of the terminal block and then tighten the screw back into the terminal block. You will do the same for the Ground wire. Please make sure you are using "positive" wire for the +12V. Also, please make sure you are running the ground back to the battery when used in a marine application. (in a car audio application, make sure to ground to the chassis as close to the amp as possible). You will also be attaching the Remote turn on. Labeled Turn ON" This is usually a blue wire from the head unit.



SPEAKER CONNECTIONS



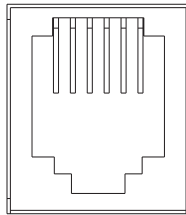
The combined total speaker impedance **MUST NOT GO BELOW 1 OHM!**
Total impedance below 1 Ohm will force the SDX2500 into protect!

You will notice that the SDX 2500 is equipped with two sets of “+” and two sets of “-” speaker output terminals on the chassis. This is for the installer’s convenience to accommodate multiple speaker wiring to the SDX2500’s mono block output. These two positive and two negative connections are connected in parallel inside the amplifier. Connecting two speakers, each to one set of positive and negative terminals will result in a parallel speaker connection. If only using one set of speaker wires, it is not necessary to use both sets of speaker output terminals on the SDX2500.

Remote Level Control

The remote level control gives you the ability to control the level remotely. You may install the level control by the driver for easy adjustments on the fly. The Wet Sounds remote level control is not a bass boost control. Or a remote gain. It is a remote level control. Meaning if the amplifiers gain is set at half. The remote level allows you to turn the amplifier up remotely from zero to half. If the amp is set at $\frac{1}{4}$. The remote level will go from zero to $\frac{1}{4}$. This allows the system to be set at the best sounding level and just use the remote to turn it down when needed. This is a safety feature that also keeps people from turning your system up too high and damaging equipment

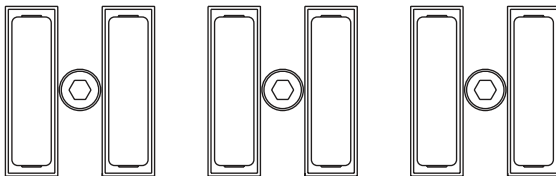
REMOTE LEVEL



Fuses

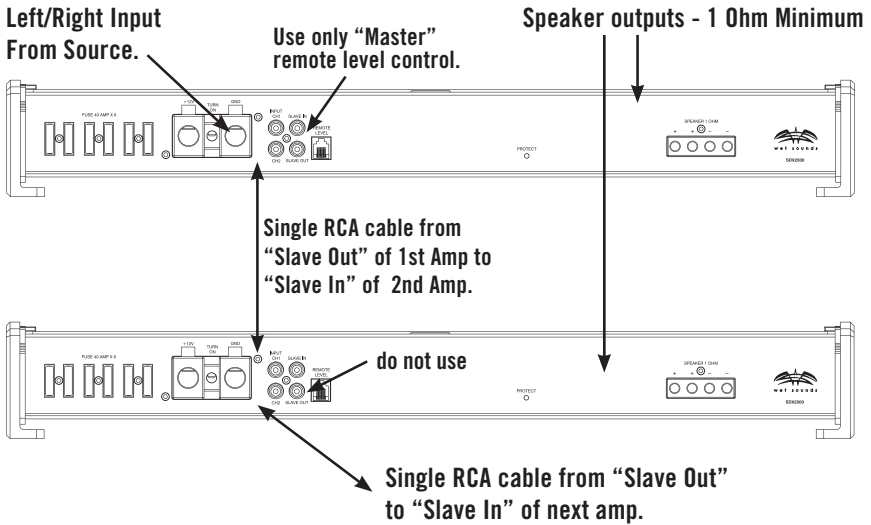
The Sinister SDX2500 amp had Six 40 amp fuses. The Sinister amplifiers are one of the most efficient amplifiers in the world. However, the laws of physics apply and you need power to make power and the Sinister amps make a LOT of power. If you blow a fuse. Check your wiring for short circuits and why the fuse is blowing. Also, check the speakers and speaker wiring as well. You should trouble shoot the system before replacing fuses.

FUSE 40 AMP X 6



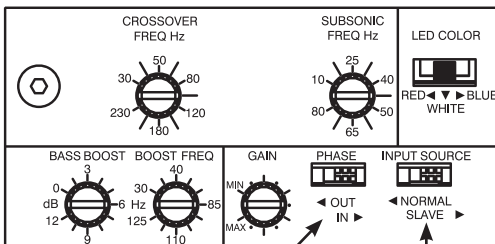
MASTER/SLAVE CONFIGURATION/CONTROL SETTINGS

The SDX 2500 is equipped with a Master/Slave Circuit. This allows control of 2 or more amplifiers from 1 set of controls. All gains, crossover, bass boost, subsonic filter, and remote level will be controlled from a single "Master" SDX 2500 Amplifier. This eliminates gain/crossover matching normally needed when using multiple amplifiers.



Master/Slave Control Settings

Use only the Crossover, Subsonic, Bass Boost, & Gain controls of the "Master" amp. These controls will not respond on any other "Slave" amp in the chain.



Set "Phase Control" on all amps to "IN".

Set "Master" amp to "Normal". All other amps in the chain set to "Slave".

The Sinister full range amplifiers are equipped with an advanced microprocessor controlled diagnostic system. This system is designed to notify you in the event the amplifier goes into protection for any reason. With a series of LED codes, the amplifier will indicate the status to help in troubleshooting.

Short protect and DC output protection: LED flashes for .25 seconds and off for .25 seconds repeatedly.

Low Battery Voltage: LED flashes for 1 second and then off for .25 seconds.

High Battery Voltage: LED flashes for .25 second and then off for 1 second.

Thermal Rollback Notification:

Amp is limited to low power: LED flashes for .25 seconds and then off for 3 seconds

Amp is limited to medium power: LED ON for 3 seconds and then off for 3 seconds

Amp is limited to medium-high power: LED ON for 3 seconds and then off for .25 seconds

SPECIFICATIONS

SDX2500

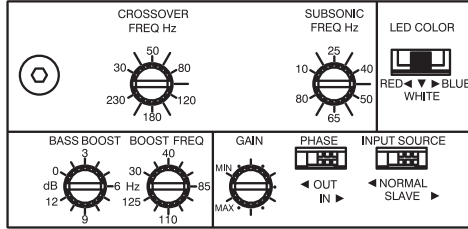
Mono Channel Subwoofer Amplifier

Output Power (RMS)	@ 1% 100Hz 14.4V CEA 2006
Mono @ 4 Ohms	1000W X 1 @ < 1% THD
Mono @ 2 Ohms	1700W X 1 @ < 1% THD
Mono @ 1 Ohm	2500W x 1 @ < 1% THD
Frequency Response	10 Hz – 150 Hz
Crossover Range Low Pass	50Hz – 150Hz 12dB/Octave
Crossover Range Subsonic Filter	10 Hz – 50 Hz 12dB/Octave
Bass Boost	0 - 12dB Variable 30Hz – 125Hz
S/N Ratio (Awtg)	1W 4 Ohm > 81dB
S/N Ratio (Awtg)	1000W 4 Ohm >111dB
Input Sensitivity	0.2V – 6.0V

All specifications and information are Subject to change without notice, please visit www.wetsounds.com for the most up-to-date information.

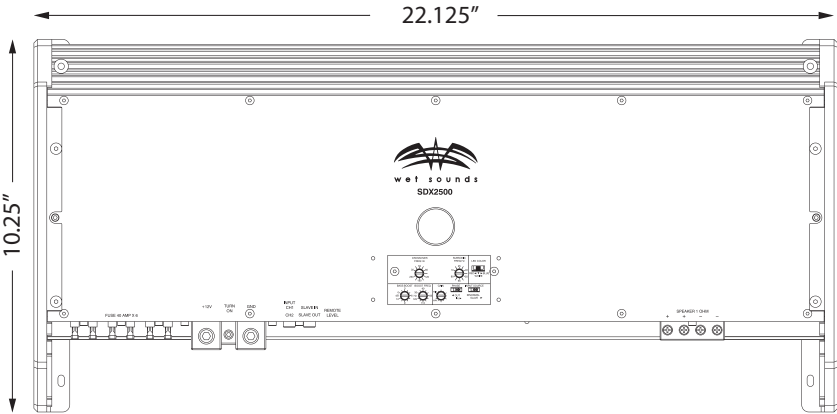
CONTROL

SDX2500 Control



DIMENSIONS

SDX2500 Dimensions



SDX2500 Front Plate



LIMITED WARRANTY

Length and limits of Warranty

Wet Sounds warrants this product to be free of defects in material or workmanship for (2) years from the date of purchase. Wet Sounds warranty applies exclusively to the original purchaser, not transferable and the amplifier must be purchased from an Authorized Wet Sounds Retailer within the United States. All products purchased outside of the United States are covered by the Authorized Distributor or OEM supplier. Any and all warranties not to exclude merchantability or fitness are limited in the duration to 2 years. This warranty gives you specific legal rights, and those rights may vary from state to state.

Items not covered

- Serial numbers that are defaced, altered or removed.
- Any product purchased outside the United States.
- Any cost related to removal, installation, shipping of the product.
- Damage caused by abuse or accident, theft, water, shipping or neglect.
- Service performed by anyone other than Wet Sounds or a Authorized Wet Sounds Service Center.
- Subsequent damage to any other components.
- Misrepresentations by the seller.
- Failure to follow installation instructions.
- Cosmetic damage.

Obtaining Service

Should service be necessary Wet Sounds (at its discretion), replace or repair the defective equipment with new or refurbished product. To receive service the original invoice of purchase with the customer name, product purchased, retailer name and address with date of purchase, must be provided to obtain warranty service. Contact Wet Sounds directly at 1-877-938-7757 contact customer service to obtain RA # (Return Authorization). You are responsible for the shipping of the product to Wet Sounds.

WET SOUNDS INC.

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