MASSIVE®

NANO BLOCK AMPLIFIERS

N2
N3
N4
NX2
NX4
NX5

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V.050809

INTRODUCTION:

Congratulations!
And thank you for purchasing a "Massive Audio" Nano Block amplifier for your car audio system. You now own an amplifier of uncompromising design and engineering incorporating the latest advances in micro topology. This handcrafted amplifier is designed to deliver the demands of serious sound competitors. You will soon discover that "Nano Block" amplifiers display a fine balance between high quality, performance and reliability; all proven qualities of "Massive Audio" products.

"Massive Audio" amplifiers are the result of American Craftsmanship using only the highest quality components and quality control standards. In order to provide you with many years of listening pleasure, we recommend you to have your new amplifier installed by an Authorized "Massive Audio Dealer." This will ensure the proper installation of your product, and will also increase the length of your warranty to **ONE YEAR.**
(Please see the warranty section of for more details.)

Please take a moment to thoroughly read this manual to ensure that you get the maximum benefit from this new addition to your car audio system. When installed properly, this unit will provide years of trouble-free performance.

Should your amplifier ever need service or replacement due to theft, please record the following information, which will help protect your investment.

Model #: _____

Dealer's Name: _____

Date of Purchase: _____

Installation Shop and Date:_____

WARRANTY

- Massive Audio, Inc. warrants all manufactured amplifier products to be free from defect in material and workmanship for a period not to exceed ***ONE YEAR**** from the date of original purchase when installed by an authorized "Massive Audio" dealer. Units that are not installed by an authorized "Massive Audio" dealer maintain a warranty not to exceed 90 days from the original purchase date by the original purchaser.

- **Products that display abuse such as power deficiency, over driving the amplifier or clipping the input require purchase of a new PCB for replacement.**

- "Massive Audio" obligations under this warranty are limited to repairing or replacing, at its own sole option, any such defective products. This warranty does not apply to equipment that has been damaged by accident, negligence, or misapplication or has been altered or modified in anyway. This warranty applies only to the original purchaser who must have properly registered the product within 30 days of purchase.

Except as provided herein, Massive Audio, Inc. makes no warranties or representations, express or implied, including any warranty implied by law, whether for merchantability or fitness for a particular purpose and shall be effective only for the period that this express warranty is effective. SEE THE WARRANTY REGISTRATION CARD TO ADDITIONAL INFORMATION.

*DUE TO CONSTANT IMPROVEMENT PRICES AND SPECS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTIFICATION.

Specifications

Model	N4	N3	N2	NX4	NX2	NX5
Description	4000W MAX Mono	2800W MAX Mono	1600W MAX Mono	4 X 400W MAX	2 X 480W MAX	4X 480W+1600w MAX
RMS power at 14.4V						
1Ohm Load	2000W	1400W	800W	NA	NA	NA+800W
2Ohm Load	1000W	700W	400W	4 X 200W	2 X 240W	4 X 240W+400W
4Ohm Load	650W	450W	200W	4 X 100W	2 X 120W	4 X 120W+200W
4Ohm BRIDGED	NA	NA	NA	2 X 400W	1 X 480W	2 X 480W+200W
Features						
Input Level	0.2~5V					
Frequency Response	10~220Hz			15Hz~25KHz	10Hz~25KHz	20Hz~25KHz
LPF	40~220Hz			50Hz~750Hz		20Hz~200Hz
SubSonic Filter(HPF)	10~50Hz			50Hz~750Hz		40Hz~200Hz
THD at 4Ohm load 30% Rated Power	<0.3%			<0.05%		
S/N Ratio	>80dB				>90dB	>89dB
BassBoost	0-6dB-12dB switchable			NA	NA	NA
Best Efficiecy @ 4ohm	>80%			>60%	>62%	>63% 4Ch woofer channel >82%
Minimum Load	1Ohm			2Ohm		2Ohm/1Ohm
Optional Remote	YES			NA		YES
Low voltage protection	Yes, protect < 8V					
ShortCircuit Test @ max power	Pass					
Overheat protect temperature	Protect at 80C / 176F					
Components & PCB	SMD parts / double side FR-4 pcb					
DIMENSION(Inches)						
Height	2.1"					
Width	5.5"					
Length	13.4"	10.3"	7.2"	10.3"	7.2"	15"

Design Features

- ☑ Extreme power in a small footprint.
- ☑ Ultimate mounting flexibility. (Stackable, line Array, Side Mount)
- ☑ 1 Ohm stable design. (Mono Amps)
- ☑ Mill Spec double sided PCB with SMD parts
- ☑ Built-in noise reduction circuitry.
- ☑ Full Mosfet with high grade switching devices.
- ☑ 12/6/0 +dB adjustable bass boost. (Mono Amps)
- ☑ Next generation advanced protection circuitry.
- ☑ World Wide standards compliant. (RoSH,E-mark,CEA-2006,CE)

NANO BLOCK

RoSH

E8

CE

Amplifier Power Standard CEA CEA-2006 Compliant

MASSIVE

Amplifier Functions

1. SPEAKERS

Connect speakers/subwoofers to these terminals. Be sure to check wire for proper polarity. Never connect the speaker cables to chassis ground.

2. +12 Volt Power

Connect this terminal through a FUSE or CIRCUIT BREAKER to the positive terminal of the vehicle battery or the positive terminal of an isolated audio system battery.
Warning: Always protect this power cable by installing a fuse or circuit breaker of the appropriate size within 18 inches (45cm) of the battery terminal connection.

3.Remote Turn On

This terminal turns on the amplifier when (+)12 volt is applied to it . Connect it to the remote turn on lead of the head unit or signal source.

4.GND

Connect this cable directly to the frame of the vehicle. Make sure the metal frame has been stripped of all paint down to the bare metal. Use the shortest distance possible. It is always a good idea to replace the factory ground at this time with a larger cable equal to the new amplifier power cable or larger. CAUTION: Do not connect this terminal directly to the vehicle battery ground terminal or any other factory ground points.

5. RCA input jacks

These RCA input jacks are for use with source units that have RCA outputs. A source unit with a minimum level of 200mV is required for proper operation. The use of high quality twisted pair cables is recommended to decrease the possibility of radiated noise entering the system.

6. REMOTE

Connect the remote controller to control the subwoofer amplifier volume from the driver seat location, for ease of adjustment during playing.

7. Gain Control

The Gain control will match the amplifiers sensitivity to the source units signal voltage. The Operating range is 5V to 200mV. This is NOT a volume control!

8. Low Pass Filter Control (Mono block)

This control is used to select the desired low pass x-over frequency. The frequency can be adjusted from 40Hz to 220Hz for all bass mono models.

9. Subsonic Filter Control (Mono block)

This control can filter out unwanted low frequency from 10Hz (OFF) to 50Hz. This function will increase the power handling of your woofers.

10. Bass Boost Level switch (Mono block)

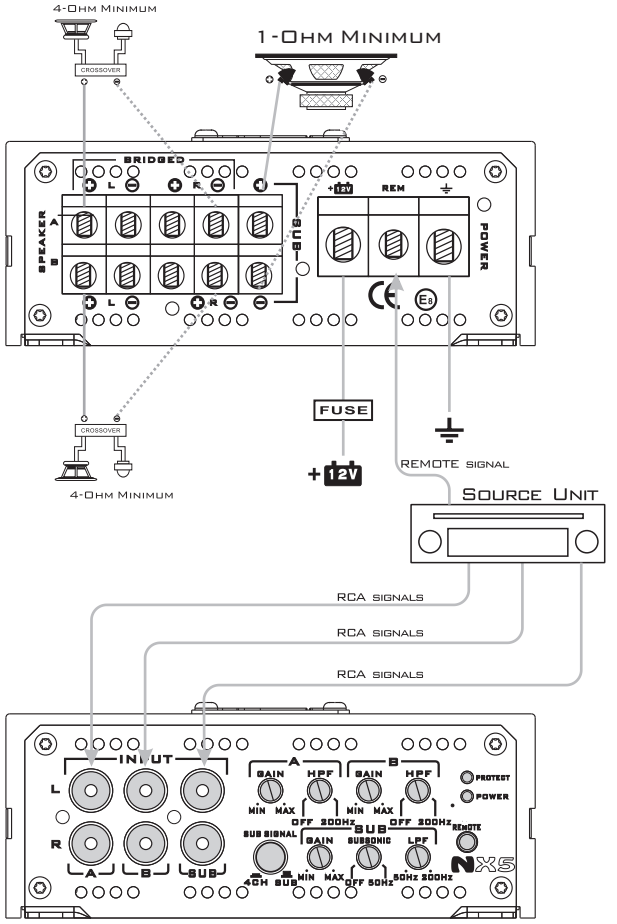
This switch can boost bass level by 0dB, 6dB or 12dB. The boost frequency is centered at 50Hz.

Trouble Shooting

Symptom	Possible Remedy
Amplifier will not power up	Check to make sure you have a good ground connection. Check that there is battery power on the (+)terminal . Check all fuses, replace if necessary . Make sure that the Protection LED is not illuminated.
Protection LED Comes on	Check for short circuits on speaker leads. Check that the speaker load is not beyond the minimum load. Remove speaker lead, and reset the amplifier. If the protection LED still comes on, then the amplifier is faulty and needs servicing .
No output	Check that the RCA audio cables are plugged into the proper inputs. Check all speakers wiring. Check the headunit output and the amplifier level setting.
Low output	Reset the level Control. Check the Crossover Control settings.
High hiss in The speakers	Check the RCA cable is not shorted to power ground at amplifier side. Check the amplifier grounding.
Distorted sound	Check that the Input level control is set to match the signal level of the head unit. Always try to set the Input level as low as possible. Check that all crossover frequencies are properly set. Check for short circuits on the speaker leads
Amplifier gets Very hot	Check that the minimum load impedance for the amplifier model is correct. Check that there is good air circulation around the amplifier. In some applications, It may be necessary to add an external cooling fan.

Wiring Diagram

Fig 12. Nx5 amplifier wiring
(3-channel mode)



11. Hi-pass filter (Full range)

This knob controls the frequencies played for the front channels. Low frequencies can be cut out from OFF to 200Hz. At OFF position, none of the low frequencies cut out, that means full pass.

12. X-over mode and frequency Control (Full range)

These controls allow control over the frequencies played for the rear channels. There is an option for Low Pass, Full Range or High Pass. In LP or HP mode, the crossover frequency can be tuned from 50Hz to 750Hz by the frequency knob.

13. Power Indicator

This LED will light up when amplifier works properly.

14. Protection Indicator

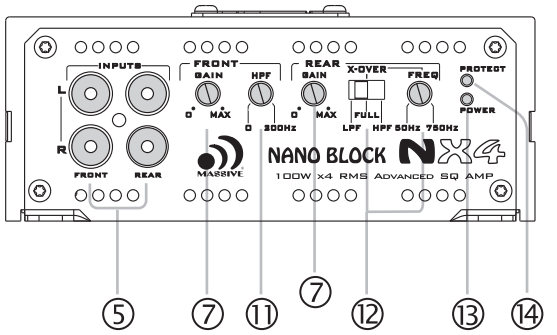
The red LED will light up and will be flashing if there is a fault presented to the amplifier. Please disconnect the amplifier and resolve the fault before reconnecting the amplifier.

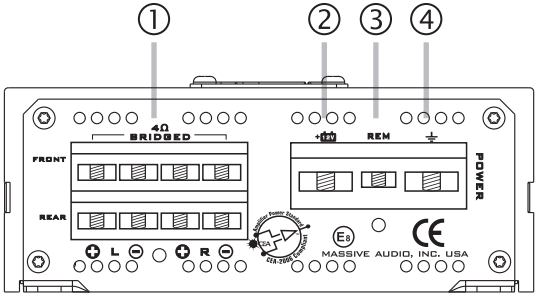
15. Woofer channel signal selector

This button selects the signal source for the subwoofer channel. When the button is up, the input signal is from external RCA. when the button is down, the amplifier will use the signal from the 4ch input.

PANEL LAYOUT

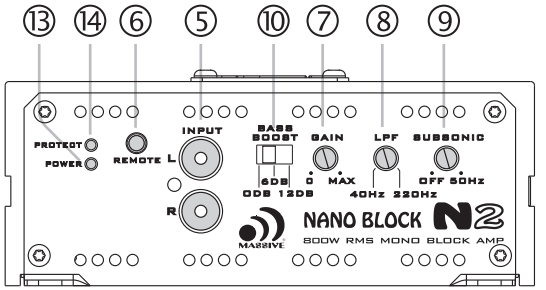
Fig 1. 4-ch amplifier panel layout

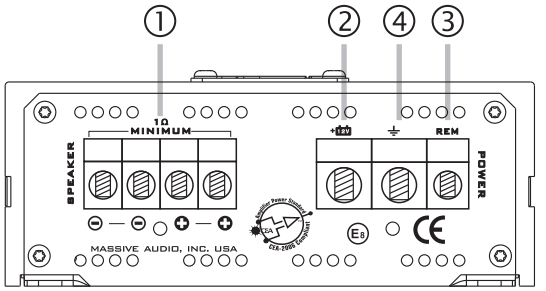




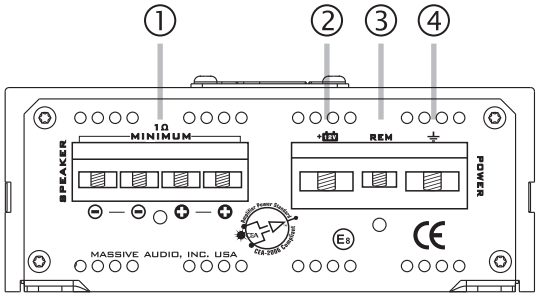
PANEL LAYOUT

Fig 2. Mono amplifier panel layout





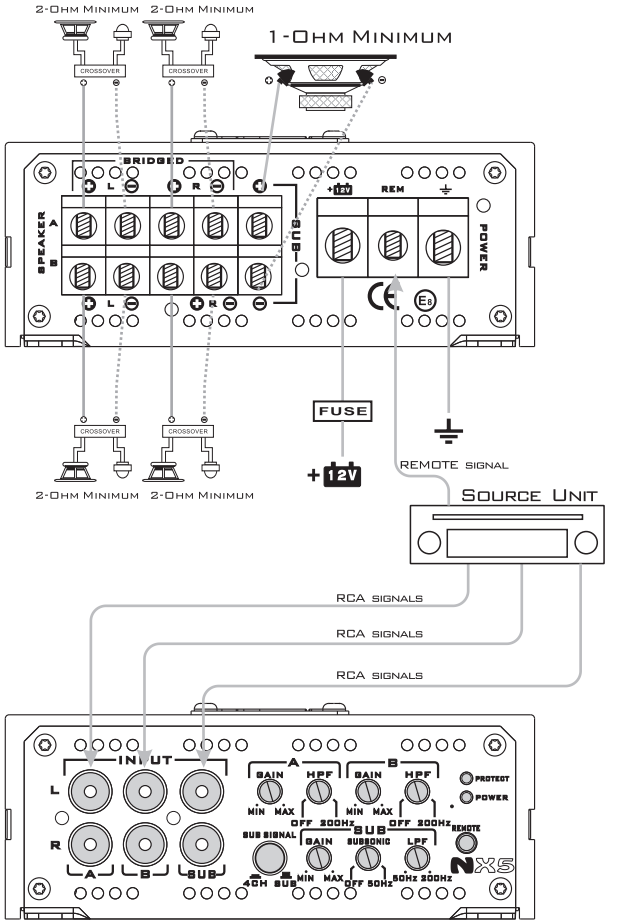
N3/N4



N2

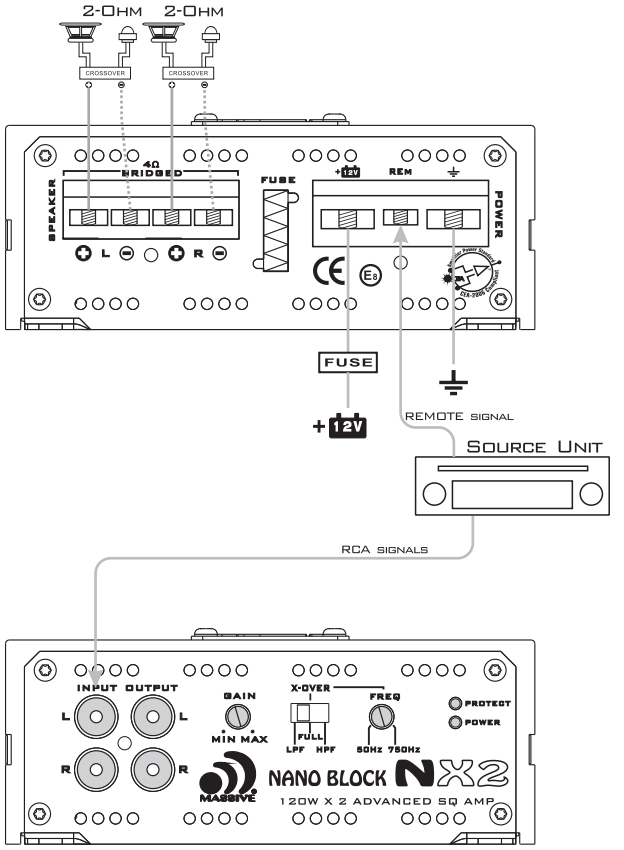
Wiring Diagram

Fig 11. Nx5 amplifier wiring (5-channel mode)



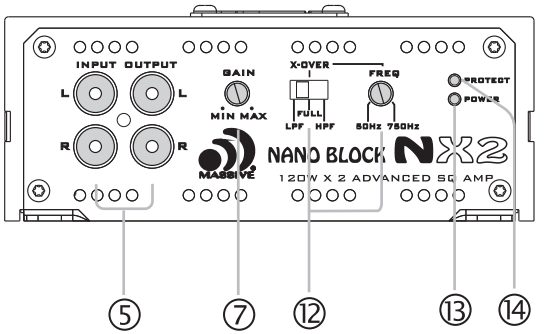
Wiring Diagram

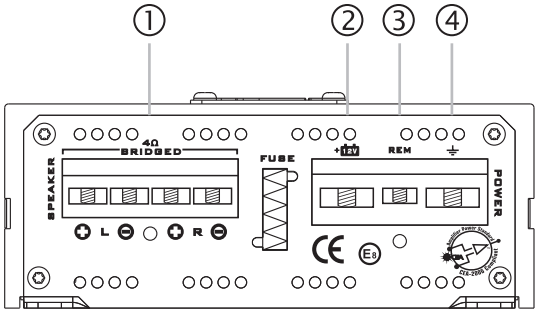
Fig 10. Nx2 amplifier wiring (2-channel mode)



PANEL LAYOUT

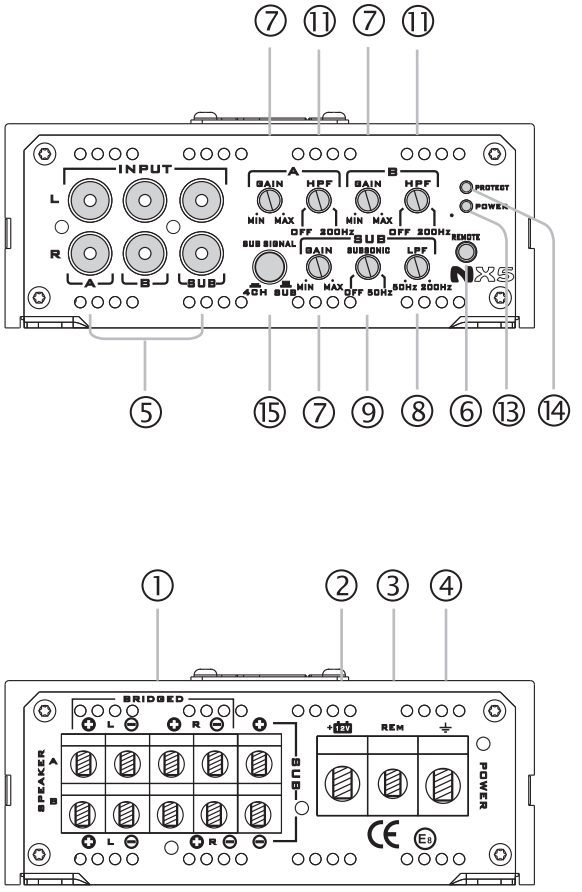
Fig 3. 2-ch amplifier panel layout





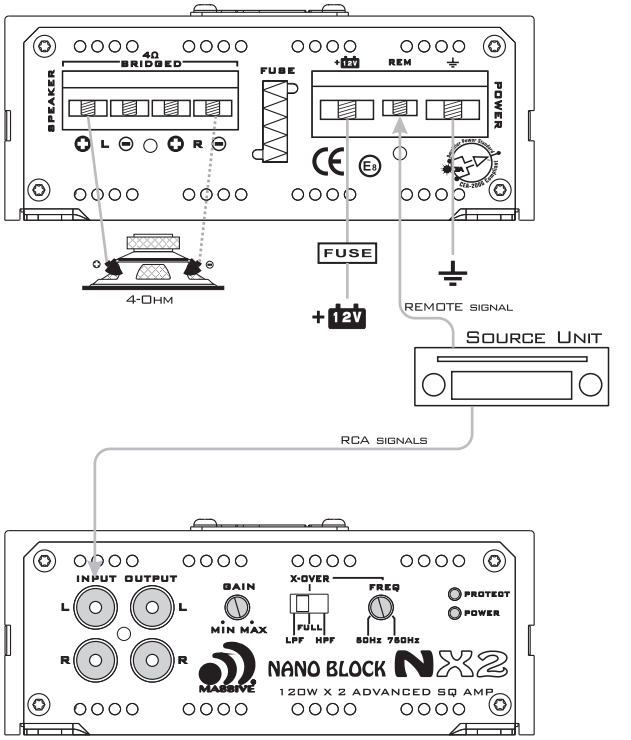
PANEL LAYOUT

Fig 4. 5-ch amplifier panel layout



Wiring Diagram

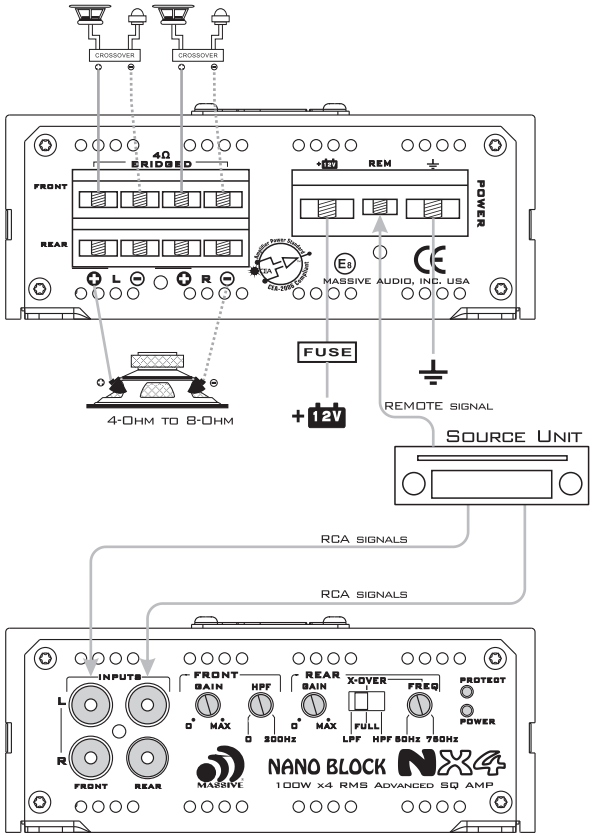
Fig 9. Nx2 amplifier wiring
(1-channel mode)



Wiring Diagram

Fig 8. Nx4 amplifier wiring

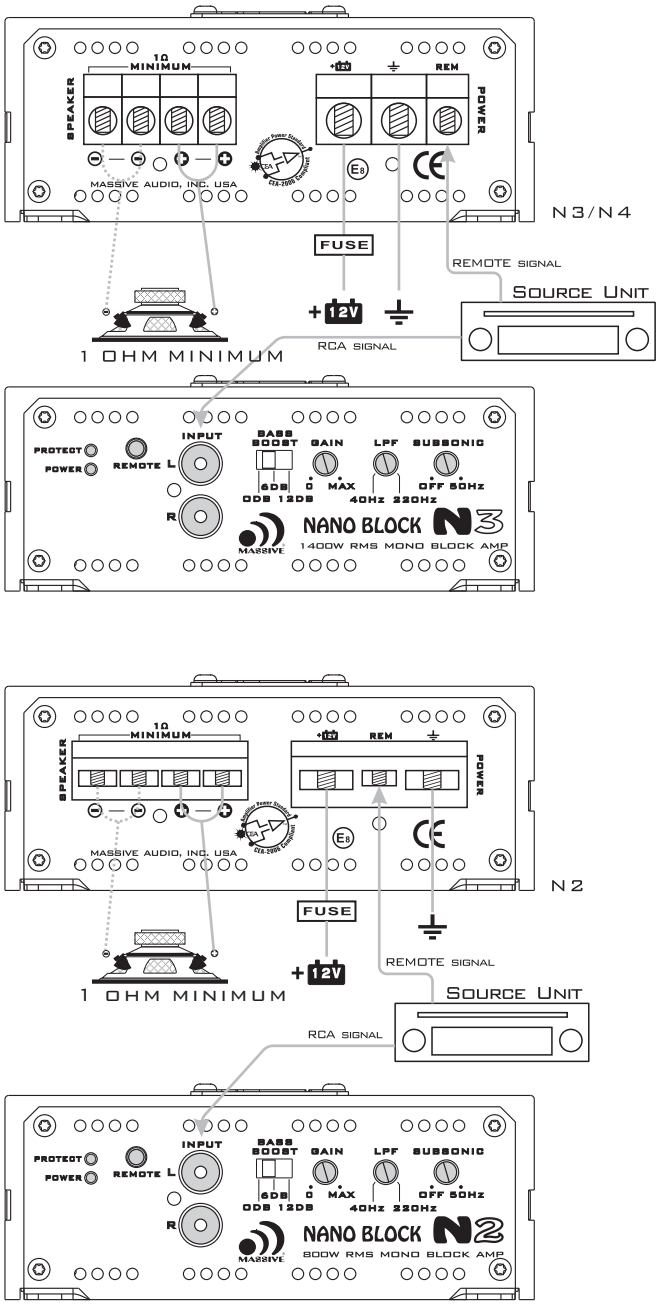
(3-channel mode)



Wiring Diagram

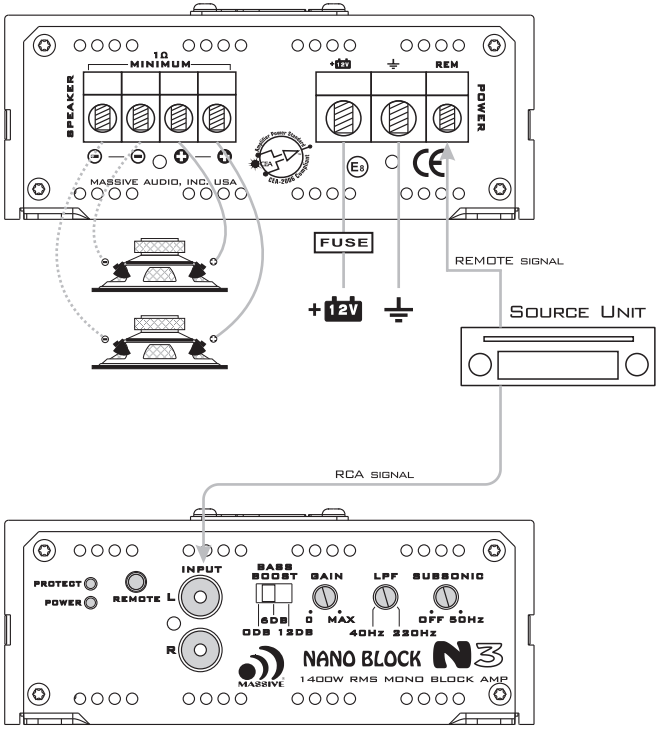
Fig 5. Mono amplifier wiring

(single woofer load)



Wiring Diagram

Fig 6. Mono amplifier wiring
(Multi-woofer load)



*Equivalent parallel woofer loads cannot be less than the minimum stable load rated in this manual. The two negative and two positive speaker terminals are wired internally inside each amplifier.
Only one negative and one positive are needed when wiring to the amplifier.
These are mono-block amplifiers and not multi-channel amplifiers.
The minimum load for all "Nano Block" (monoblock) amplifiers are one ohm.

Wiring Diagram

Fig 7. Nx4 amplifier wiring
(4-channel mode)