

# VLX

## 4150X

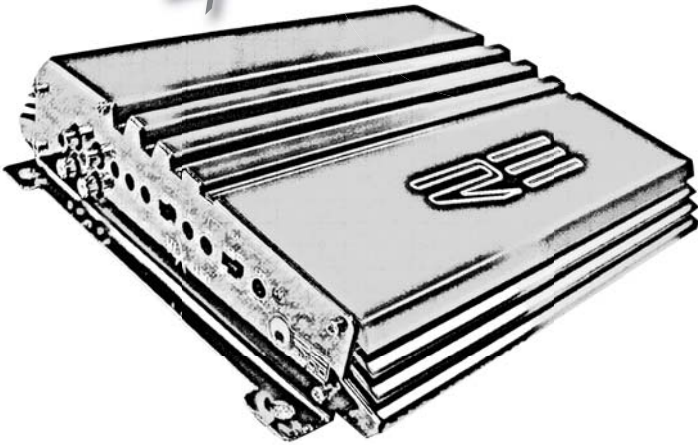
4-Channel High Speed  
Digital Stereo Amplifier

### 1DE • 2DE • 3DE

Class-DE Monoblock Amplifier

## Owners Manual & Installation Guide

*—RELEASE THE BEAST—*



A Division of **US Amps**

[usamps.com](http://usamps.com) / [reaudio.com](http://reaudio.com)

# Congratulations

on your selection of a RE Audio **VIX** series amplifier. We take pride in manufacturing our products and you can expect your new amplifier to give you years of trouble-free service. To make your installation as easy and reliable as possible, please read this manual carefully before beginning. If you need more information, your RE Audio Dealer will be glad to help. To locate a RE Audio Dealer near you, go to our web site and look for "Locate Dealer" or call us at (909) 869-7500.



## Registration Card

### Customer Information

First name: \_\_\_\_\_

Last name: \_\_\_\_\_

Street No: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ ZIP: \_\_\_\_\_

email: \_\_\_\_\_

Phone(optional): \_\_\_\_\_

### Product Information

Model No: \_\_\_\_\_

Serial No: \_\_\_\_\_

Where did you buy it from?: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Fill in the form and mail it to: Product Registration  
20819 Currier Rd #100  
City of Industry, CA 91789



# Defining a New Generation

RE AUDIO was founded by audio enthusiasts, for audio enthusiasts. We understand the uses (and often abuses) in autosound and engineer products for the real world. For years, our products have the finesse and sound quality to please the most discriminating audiophile, yet the durability to stand up to the extreme abuses of SPL competition.

We did it again! We are proudly introduce another one of a kind—the smallest, most powerful, most efficient \*1 Ohm-stable amplifier on the market: **VLX** series!

Here at RE, our passion drives us to design the products that you want to use, the products that offer many years of excitement and fun. Guaranteed!

\*VLX 1DE/2DE/3DE

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# FEATURES

## POWER SUPPLY

- High-current Matched MOSFET devices
- Magnetic Induction Regulated Drive Power Supply  
—Drive pulse regulation down to 9 volts input (1DE/2DE/3DE)
- 35 nanosecond Switching Diodes
- All metallized, high temperature, low ESR capacitors
- 504 amps(1DE) / 1008 amps(2DE) / 2016 amps(3DE) of power devices
- High capacity power transformer
- Multiple Bypass capacitors on incoming 12 volt supply
- Time delay turn on
- Pulse-width Modulation power supply (2DE/3DE)
- Thermal, current, and reverse polarity protection
- New stability filter design for reduction in noise

## AMPLIFIERS

- Class DE technology utilizing our Elevated Efficiency Platform (1DE/2DE/3DE)
- Output stages utilize high-current Matched MOSFET devices
- High speed, audio-grade components in all low level stages
- Platinum plated RCA inputs and connectors
- Wide range of sensitivity accepts signal from any head unit including speaker leads
- 24 dB/octave Subsonic Filter (1DE/2DE/3DE) / 24 dB/octave Electronic Crossover
- True line output / Auto bridge feature / Short circuit protection
- Balanced Transformerless Logic input for the highest possible Damping Factor, Slew Rate and Signal-to-Noise Ratio
- 390 amps(1DE) / 684 amps(2DE) / 912 amps(3DE) of output devices
- Double 30-amp speaker relays (2DE/3DE)
- 90% High Density Construction Surface Mount Technology

# INSTALLATION

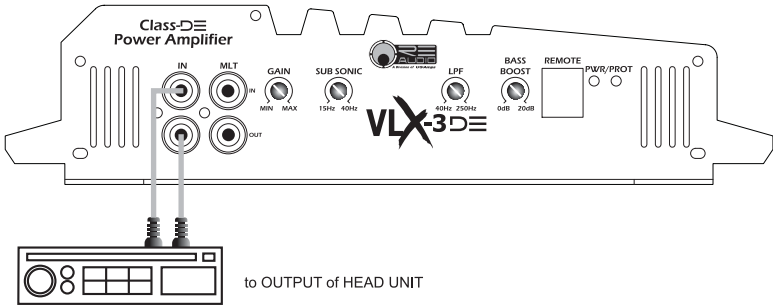
- Use at least 8-gauge wire for power and ground connections
- Use at least 12-gauge wire for speaker connections
- Use at least 16-gauge wire for remote connection
- Mount the amplifier where it can receive the best ventilation
- Use the shortest ground connection to the chassis of the vehicle and make sure that the paint is removed at the connection point
- Connect the remote input to the remote/antenna output of the head unit
- Mount the fuse holder within 200mm(8") of the vehicle's battery. Use a fuse equal to that specified for your amplifier if a large, single +12V line is run which feeds more than one amplifier add up all required fuse ratings and use the total rating for the fuse
- Connect the speaker to the amplifier observing the correct phasing. Make sure that none of the speaker connections can touch the vehicle chassis
- Connect the RCA inputs to the appropriate signal source using only the highest quality RCA cables
- Make sure that the RCA and speaker cables do not run parallel to the +12V wiring

# CONNECTIONS

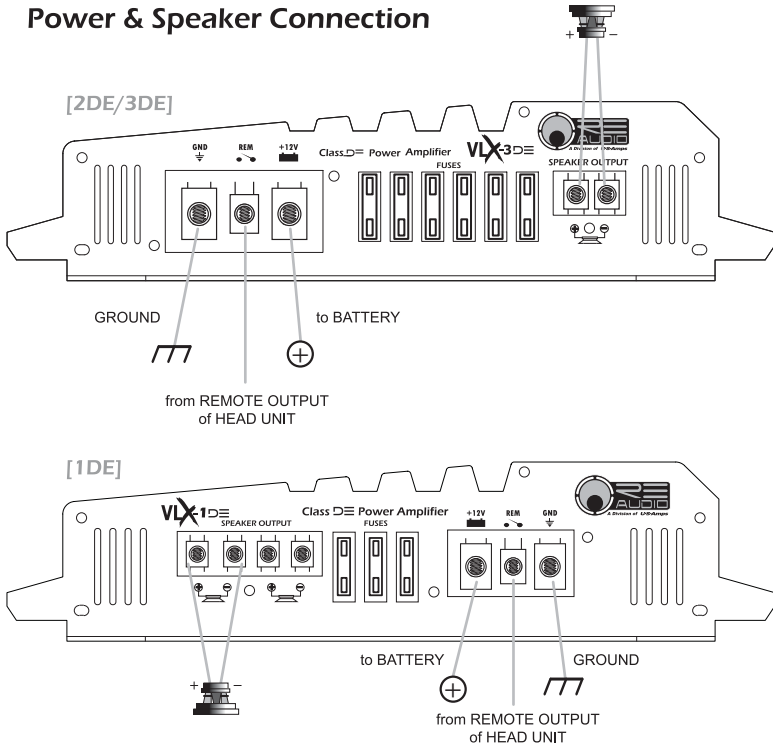
## [Basic Wiring]

### ▲ Monoblock [VLX 1DE/2DE/3DE] Amplifiers

#### RCA Connection



#### Power & Speaker Connection

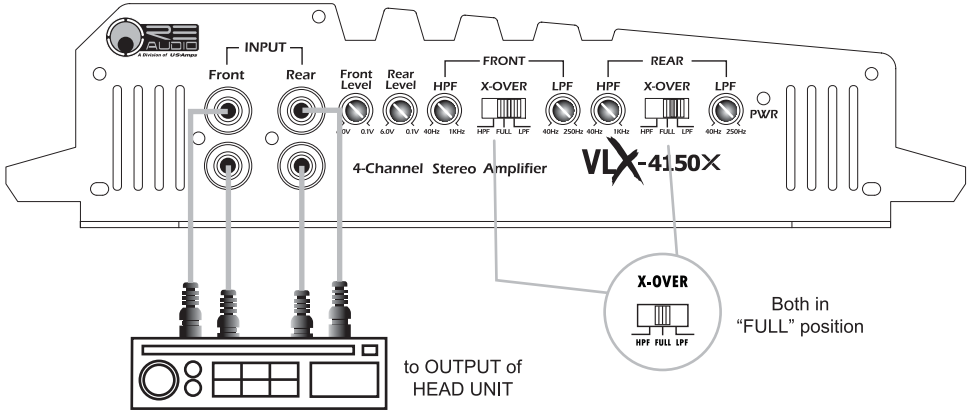


# CONNECTIONS

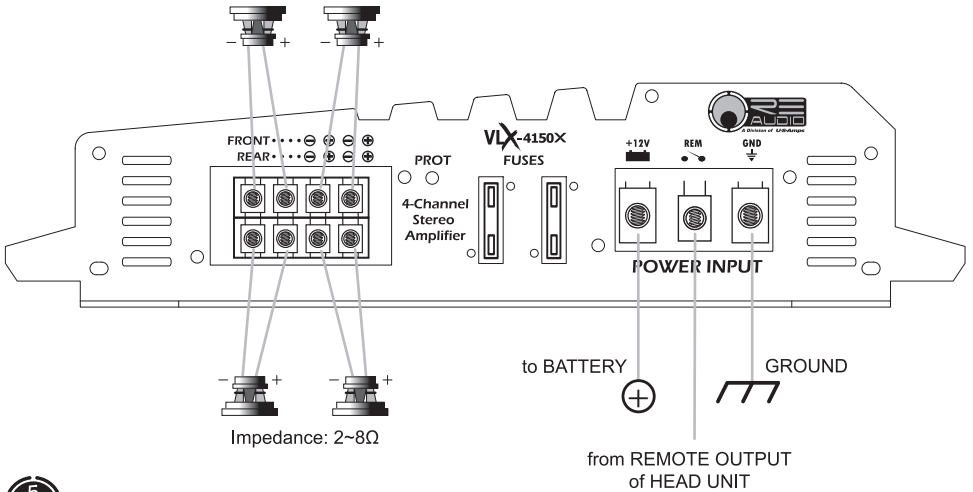
## [Basic Wiring]

### ▲ 4-channel [VLX 4150X] Amplifiers

#### RCA Connection



#### Power & Speaker Connection

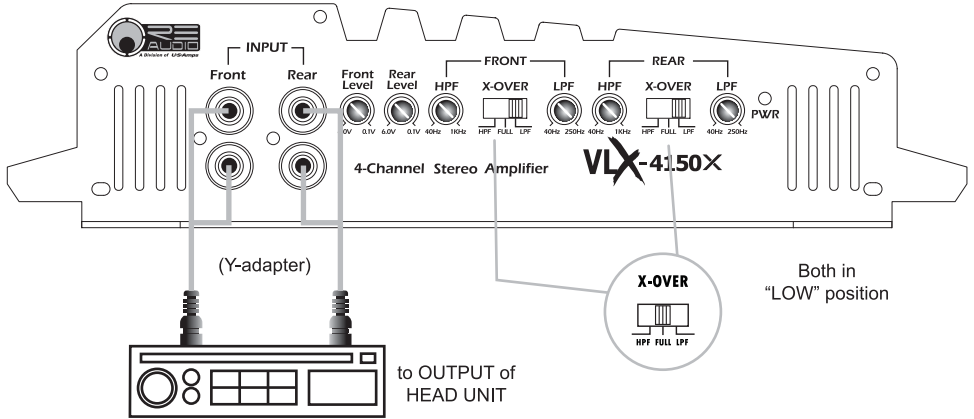


# CONNECTIONS

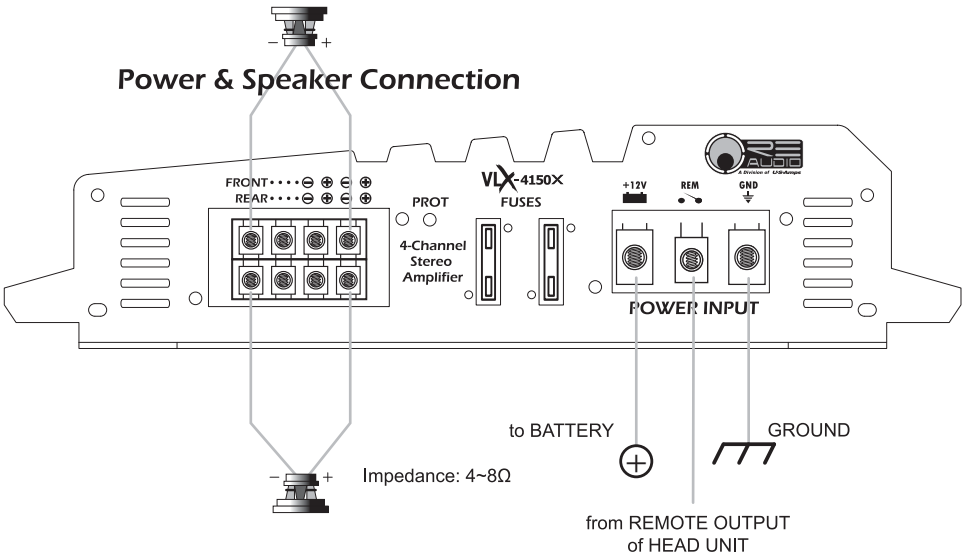
## [Bridged Wiring]

### ▲ 4-channel [VLX 4150X] Amplifiers

#### RCA Connection



#### Power & Speaker Connection



# SPECIFICATIONS

	4150X			1DE		2DE		3DE	
Power Output (RMS)  at full frequency  (10Hz~20KHz)  (before clipping)	4Ω	@ 12V @ 14.4V	W	4 x 125	1 x 200 1 x 250	1 x 400 1 x 450	1 x 550 1 x 600		
	2Ω	1KHz 100Hz	W	4 x 200	1 x 500	1 x 900	1 x 1200		
	1Ω	100Hz	W		1 x 1000	1 x 1800	1 x 2400		
	4Ω mono	1KHz	W	2 x 400					
Total Harmonic Distortion	4Ω	1KHz	%	0.05	0.09	0.09	0.09		0.09
S/N Ratio	Input Short	4Ω	dB	85	80	80	80		80
Channel Separation @ 4Ω RMS	1KHz	1KHz	dB	90	N/A	N/A	N/A		N/A
Frequency Response			Hz	20~30K	20~250	20~250	20~250		20~250
Power Band Width (Frequency Response)		-1dB	Hz	20	20~250	20~250	20~250		20~250
			KHz	20	N/A	N/A	N/A		N/A
Crossover Frequency	Low Pass	24dB	Hz	40~250	40~250	40~250	40~250		40~250
	Subsonic	24dB	dB	N/A	15~40	15~40	15~40		15~40
	High Pass	12dB	Hz	40~1K	N/A	N/A	N/A		N/A
Bass Boost Control @ 45Hz			dB	N/A	0~20	0~20	0~20		0~20
Wired Remote Control				N/A	Yes	Yes	Yes		Yes
Bridged Mono Capable			Ω	4	N/A	N/A	N/A		N/A
Master Slave Capable				N/A	Yes	Yes	Yes		Yes
Gain Control				Yes	Yes	Yes	Yes		Yes
Input Sensitivity	Low Level	1KHz	mV/V	200/8.0	350/9.0	350/9.0	350/9.0		350/9.0
	High Level	1KHz	V						
Input Impedance	Low		KΩ	22	22	22	22		22
	High		Ω						
Damping Factor			4Ω	>100	>200	>200	>200		>200
Dimensions [(L) in/mm]	(W)9.75/248 x (H)2.25/57		in/mm	11.75/300	9.45/240	16.5/420	19.7/500		
Fuse Rating			A	30A x 2	30A x 3	30A x 6	40A x 6		
Protection (thermal, overload, short circuit, DC offset)				Yes	Yes	Yes	Yes		Yes
Power Voltage Range			V	10~16V	10~16V	10~16V	10~16V		10~16V





# TROUBLESHOOTING

Before removing your amplifier, refer to the list below and follow the suggested procedures. Always test the speakers and their wires first.

## No Output

- Confirm that all terminal strip connections are secure and tight.
- Check both in-line and built-in fuses.
- Confirm that the audio signal source (car radio, equalizer, etc) is connected and is supplying output signal. To check if the amplifier is supplying signal, unplug the RCA cables from the signal source (but leave them plugged into the amp) and briefly tap the center pin of each of the disconnected RCA plugs with your finger. This should produce a noise (feedback) in your speakers.

## Only one channel works

- Confirm that all terminal strip connections are secure and tight.
- Check the “BALANCE” control on the head unit (or other source) to verify that it is set to its mid point.
- If you are using the low-level RCA input, reverse the input plugs at the amplifier (switch the R with the L). If the channel which is silent switches to the other side, the problem is either in the head unit/other source or the connecting cables.

## Weak output

- Re-adjust the Input Level Control to better suit the input signal.

## Noise in the audio

- If the noise is a “whine” whose pitch follows the engine speed, confirm that the amplifier and any other signal sources (head unit, equalizer, etc) are properly grounded.
- If the noise is a “clicking” or “popping” noise whose rate follows the engine speed, this usually means that the vehicle is equipped with resistor spark plugs and wires, or that the ignition is in need of service.
- Check the routing of the speaker and input wires to make sure they are not adjacent to wires which interconnect with lights and other accessories.
- If the above steps fail to improve or clear noise interference, the system should be checked by a authorized RE Audio Dealer.



## Caution !

Jump starting your vehicle can cause large voltage spikes within your automobile's electrical system. To prevent damage to your stereo system, make sure the entire system is shut down until full battery charge has been reached and jumper cables have been removed from the battery.

## We want you listening for a lifetime!

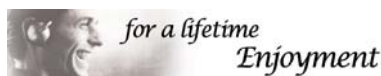
Used wisely, your new **VLX** will provide a lifetime of fun and enjoyment. Since hearing damage from loud sound is often undetectable until it is too late, RE Audio and the Electronic Industry Association's Consumer Electronics Group recommend you avoid prolonged exposure to excessive loud sound.

dB level	Examples
30	Quiet library, soft whispers
40	Living room, refrigerator, away from traffic
50	Light traffic, normal conversation, quiet office
60	Air conditioner at 20 feet, sewing machine
70	Vacuum cleaner, hair dryer, noisy restaurant
80	Average city traffic, garbage disposal, alarm clock at 2 feet

The following noises can be dangerous under constant exposure

90	Subway, motorcycle, truck traffic, lawn mower
100	Garbage truck, chain saw, pneumatic drill
120	Rock band concert in front of speakers, thunderclap
140	Gunshot blast, jet plane
180	Rocket launching pad

Information courtesy of the Deafness Research Foundation



# MEMO

**Model #:**

**Serial #:**

**Purchased Date:**

**Purchased From:**

Write down key information of your **VLX** amplifier(s) as noted above. Please refer this information when you need assistance from our technical support or RA service.

You can find important warranty information on the back cover.

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## ***Limited Warranty:***

RE Audio warrants all manufactured electronic products to be free from defects in material and workmanship for a period not to exceed ONE YEAR from the date of purchase.

**IMPORTANT WARRANTY NOTICE:** RE Audio will only warrant and service products displaying valid RE Audio serial numbers. **WARRANTY SERVICE WILL ONLY BE PERFORMED WHEN THE UNIT IS ACCOMPANIED BY A COPY OF THE ORIGINAL SALES RECEIPT FROM AN AUTHORIZED DEALER.** All product returned to RE Audio for service **MUST** be accompanied by a Return Authorization Number, issued by RE Audio in advance of shipment. The Return Authorization Number must be clearly and conspicuously displayed on the shipping carton or RE Audio will refuse delivery.

For Return Authorization Numbers, first call your RE Audio dealer you purchased the products from. The dealer will help you to obtain Return Authorization Numbers. This warranty extends only to the original purchaser and is not transferable. Defective equipment must be returned within the warranty period, freight prepaid, to the RE Audio Factory or an Authorized RE Audio Warranty Station.

This warranty covers only defects in materials and workmanship of manufactured electronic products(amplifiers). Incidents of misuse, abuse, neglect, or unauthorized modification will not be covered within the terms of this warranty.

RE Audio reserves the right to refuse warranty service under such conditions.

**RE Audio WILL NOT BE RESPONSIBLE FOR ANY DAMAGES, WHETHER INCIDENTAL OR CONSEQUENTIAL, RELATED TO THE USE OF THIS OR ANY OTHER PRODUCT BEARING OR SOLD UNDER THE RE Audio BRAND NAME. USE THIS PRODUCT AT YOUR OWN RISK. IMPROPER USE OF THIS PRODUCT CAN RESULT IN PROPERTY DAMAGE, BODILY HARM, AND OR OTHER DAMAGE. RE Audio ASSUMES NO RESPONSIBILITY FOR YOUR HEALTH OR SAFETY.**

