

Owners' Manual and Installation Guide HAND - CRAFTED IN FLORIDA, U. S. A. Thank-you for choosing U.S. Amps! You have purchased the finest product of its type available. Each U.S. Amp is built *by hand* in our Gainesville Florida factory. Nothing is done "off shore" or across the border. You won't just *listen* to your U.S. Amp, you will *experience* it. When properly installed, this unit will provide years of trouble-free service.. Remember, *protect your hearing*, and enjoy your U.S. Amp!

This manual is written for the experienced installer. *Please read it in it's entirety <u>before</u> <u>installation</u>. If you are unfamiliar with the terminology and concepts within, we strongly recommend you seek the assistance of an Authorized U.S. Amps Dealer or other car audio professional.*

Authorized Dealers can be located on the U.S. Amps website: <u>WWW.USamps.com</u>, or by calling the factory Monday-Friday at (352)-338-1926, 9am to 5pm EST.

Contents

Installation	3	USA-50HC, USA-150,150x, USA-300, 300x	13
Active Electronic Crossovers	4	USA-5500x	15
Amplifier Power and Fuse	6	USA-400, 400x, VLX-25, USA-100HC	17
Getting Wired	7	Factory Service	18
Batteries	7	Limited Warranty	18
Energy Management	9	Never, Never Land	19
Amplifier Specifications	10	Other Cool Stuff	19
USA-50, USA-100	11		

Did you buy the right U.S. Amp?

There is a U.S. Amp for every purpose. If your needs require maximum amplifier power into 4 or 2 ohms per channel, or 4 ohms bridged, use one of the Xterminator "X" models for the best results. If you have more than a pair of speakers, or if the speakers have multiple voice coils, you may need the extra current and low impedance stability of the USA Series. The USA Series develops maximum output when used at 1 ohm per channel or 2 ohms bridged.

If you participate in sound-off events, the "HC" and "VLX" amplifiers are designed to operate at ultralow impedances. U.S. Amps has an established track record of success in SPL and sound quality competition.

Amplifier Nomenclature:

With the exception of the Xterminators, The amplifier model numbers indicate the total power of *all channels combined* when rated at 4 ohms.

The Xterminator models are based on the USA Series, but have a higher 4 ohm per channel power rating. The "X" model nomenclature indicates the power *per channel* into 4 ohms.

INSTALLATION

Amplifier Mounting:

Choose an appropriate location to mount the amplifier(s). Make sure your choice is free from excess heat, moisture, and vibration. Under the vehicle seat or in the trunk are common mounting locations. Be sure the amplifier receives adequate ventilation to it's heat sink and is positioned away from flying luggage and people's feet. Do not mount the amplifier directly to speaker enclosures.

Ventilation:

It is important to provide the amplifier with adequate ventilation to remove heat from the amplifier heat sink. During high performance applications, in which the amplifier may be exposed to low impedance loads, it may be necessary to provide external ventilation via a fan or some other means. With proper ventilation, the "run time" of the amplifier between thermal protection cycles can be greatly extended.

Amplifier and Crossover Input:

U.S. Amps feature a unique isolated input section that will accept signal voltages from 250 mv to 10 volts. The input section also provides amplifier ground isolation for the prevention of system and engine noise. The unique configuration of the U.S. Amps input necessitates a correct input ground, and is not compatible with external ground-isolation devices.

IMPORTANT NOTICE

The input of a U.S. Amp MUST be grounded for proper amplifier operation. The use of external ground isolation dividing devices is unnecessary and may cause severe amplifier and / or system damage.

Signal Level (BTL) Input:

This product will accept line and signal level, and can be used with most BTL "high powered" sources. To use a BTL source, observe the following:

1) BTL outputs have two "hot" non-grounded leads per channel. Select ONE per channel, and connect it to the "center conductor" of the RCA input cables going to the amplifier input.

2) Insulate and disregard the second wire of each BTL output pair.

3) Ground the shield wires of the RCA cable to the metal body of the source unit.

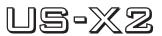
Gain Control Adjustment:

Always start with the gain control fully counter-clockwise (all the way down), or just slightly open. Adjust the source unit volume as high as possible without distortion. Increase the amplifier gain until the amplifier distorts, then turn the gain down slightly until the signal becomes clear. It is desirable to operate the amp at the lowest possible gain setting to help reject spurious system noise.

ACTIVE ELECTRONIC CROSSOVERS

The US-X2 and US-X2R are two-way crossovers that "split" the full-range audio signal into two groups of frequencies- high and low. Each group is sent to a dedicated amplifier, which in turn, powers a speaker or speakers that are best suited to play those frequencies. Both units have independent controls to adjust the "roll-off" of the high

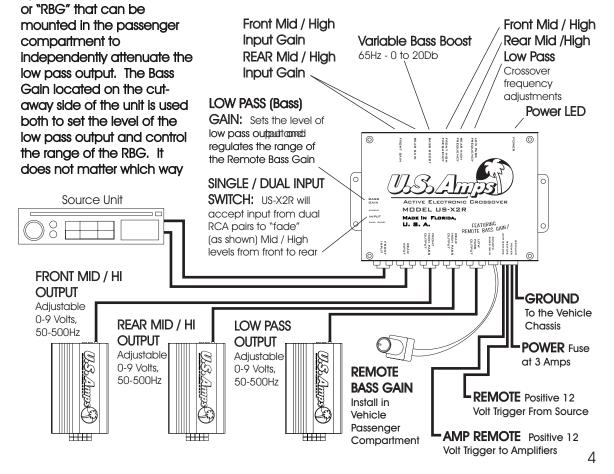
Both units have independent controls to adjust the "roll-off" of the high and low frequencies from 50Hz to 500Hz at 12 Db per octave.





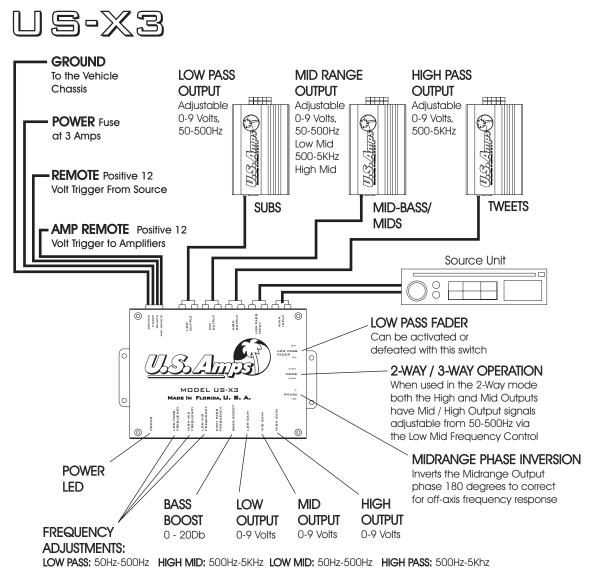
The low frequency control limits the high frequency response of the low pass output, and the high frequency control limits the low frequency response of the high pass output. Both units feature a variable Bass Boost that emphasizes frequencies in the 65Hz range up to 20Db. The US-X2R is a more featured unit with dual inputs and *two* high pass outputs that can be independently adjusted. The US-X2R will "fade" between two mid and high amps, but if only one

input pair is available, the dual input can be defeated. The US-X2R comes with an optional "Remote Bass Gain"



the RBG cable is connected. Use a common screwdriver tip or something like it to tighten the RBG knob.

The US-X3 is a three-way unit that further divides the frequencies for three amplifiers. The features and operation are similar to the others with the addition of the third mid range channel, and its gain. There are separate high, mid and low mid frequency controls, and the mid range output can be inverted 180 degrees with a switch to correct for real-life speaker placement.



As with other U.S. Amps products, our crossovers feature an isolated input and amplifier section to keep the system free of noise. It is important to ground the crossover input for proper operation. Do not use a floating ground isolator with this or any other U.S. Amps product.

5

	AMPLIF POWER						FIER R* and FUSE*	
			Watts per Channel					
	Model	4 Ohms	2 Ohms	1 Ohm	.5 Ohm	.25 Ohm	Fuse	
•	50)X	50W	80W	N/A	N/A	N/A	25A	
	100)	100W	175W	N/A	N/A	N/A	50A	
	150)	150W	250W	N/A	N/A	N/A	75A	
N	300)	300W	450W	N/A	N/A	N/A	135A	
NW NW	400X	400W	750W	N/A	N/A	N/A	225A	
	(New Model- June 1999)	50W X 4	80W X 4	N/A	N/A	N/A	50A	
	(5 Channel Sys- tem Amplifier)	75W X 4 250W X 1	95W X 4 350W X 1	N/A	N/A	N/A	75A	
E S	USA-50	25W	50W	80W	N/A	N/A	25A	
	USA-100	50W	100W	158W	N/A	N/A	50A	
SER	USA-150	75W	150W	225W	N/A	N/A	75A	
8	USA-300	150W	300W	405W	N/A	N/A	135A	
SA	USA-400	200W	400W	600W	N/A	N/A	225A	
	USA-800	400W	800W	1500W	N/A	N/A	400A	
OMPETITION	USA-50HC	25W	50W	100W	188W	N/A	75A	
	USA-100HC	50W	100W	200W	400W	N/A	225A	
MPE	VLX-25	12.5W	25W	50W	100W	200W	225A	
ບຶ	VLX-400	200W	400W	800W	1200W	N/A	400A	

Copyright 1999 U.S. Amps Inc. All rights Reserved. *Specifications subject to change without notice

GETTING WIRED:

Once you have established the current needs of your system, it will be of the <u>UTMOST</u> <u>IMPORTANCE</u> to properly fuse the amplifier. Remember, power connections are always the last thing. There cannot be enough emphasis placed on the importance of proper fusing. Fuses prevent catastrophes. <u>Always fuse each U.S. Amp product at or less than the recommended</u> <u>amperage.</u> Another major consideration is wire. If you wish to build a truly high-powered system, you must take into account the <u>total amperage requirements</u> of the system and select your wire gauge accordingly. The following chart can be used as a guide:

AWG 14	30 AMPS	AWG 6	80 AMPS	AWG 0	190 AMPS
AWG 12	35 AMPS	AWG 4	105 AMPS	AWG 00	215 AMPS
AWG 10	45 AMPS	AWG 2	135 AMPS	AWG 000	245 AMPS
AWG 8	60 AMPS	AWG 1	160 AMPS	AWG 0000	275 AMPS

These are real numbers, right out of the 1951 U.S. Federal Electrician's Code Book. It takes real wire to do real work. Trust us on this one.

BATTERIES:

Batteries, and the way they operate, is one of the least understood, yet critical element of any healthy car audio system. Even small, highly efficient systems need a minimum amount of amperage and voltage to operate properly. The average automotive battery is designed only to *start* the vehicle, not run the stereo, the lights, or anything else. That job goes to the vehicle alternator, once the engine has been started.

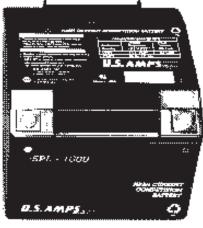
The alternator also recharges the battery, replacing the energy used to start the engine within a matter of minutes. The actual work done by the battery is minimal. If the current drawn by the vehicle lights and other electrical accessories does not exceed the amperage output of the alternator, the average battery will last for years.

The audio system, particularly the amplifiers, add to the current draw. Most stock alternators have excess output, anywhere from 30 to 50 amps, maybe more. A safe way to determine whether your electrical system is adequate to handle your U.S. Amp(s) is to use one-half of the amplifier fuse rating as a constant to determine the average current draw of the system. Unless you are one of those people who uses your amplifier to play a sine wave, (in which case you are on your own) your amp will not draw peak current all the time when playing music. This isn't rocket science, but it gets the job done. Another way is to use the charts on pgs. 6 & 10 to determine *actual amplifier output* based on the impedance that each channel is operating.

For each 100 watts, when playing music, count on 7.5 amps average of average current draw. <u>EXAMPLE:</u> You have a 40 amp "cushion" with your alternator, and you want to run a USA-5500x 5 channel amplifier. The sub is run at 4 ohms, 250 watts, and the 4 mid-high channels are at 4 ohms each, or 75 watts X 4 for 300 watts. The maximum system power would be 600 watts, (Since we are dealing with maximums, not to mention differing tastes in music and listening volume, there is a healthy "fudge factor" built in here.) 600 watts at 7.5 amps per every 100 is 43 amps. You are home free. BUT, if you want two 300xs' pounding away at 4 ohms bridged, that's 1800 possible watts, or 18 X 7.5 amps, for 135 amps. You only have 40 to spare. High-performance listening requires the right equipment. Either you invest in a more powerful alternator to make up the extra current, or *your battery* is going to have to come up with the additional 95 amps.

This is not a good situation. Most batteries are of marginal construction and made of recycled materials. Hence, they perform poorly, and break down quickly when used outside their intended roll of starting the engine. The longer a battery is discharged, the longer it takes to recharge. Most batteries take a lot longer than you think. Every time a common lead-acid automotive battery is deeply discharged, it is damaged. The longer it is left discharged, the greater the damage is.

Discgarge Current, Amperes



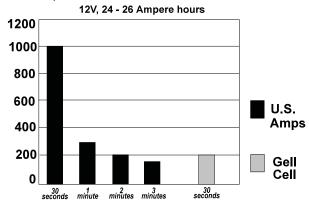
SPL-1000

When compared with "Gell Cell" batteries as shown on the accompanying chart, SPL Series batteries demonstrate superior discharge capabilities. Because of their outstanding properties and built-in safety features, the SPL Series can be used indoors, or inside the vehicle passenger compartment.

U.S. Amps SPL Series batteries are used by NASA, The U.S. Military, and champion NASCAR* racing teams. SPL Series batteries are not magic, they are simply the best batteries available. <u>They have to be</u> to wear the U.S. Amps name.

U.S. AMPS SPL SERIES BATTERIES:

By default, we have become battery experts, so much so that we have our own brand, aptly named the U.S. Amps SPL Series, sold through our Motorsports and Consumer Electronics divisions. The SPL Series consists of two 12 volt models, the SPL 1000 and SPL-2000. They are the finest lead-acid batteries available. SPL Series batteries are made of 99.97% virgin lead. They are 30% smaller and lighter than conventional batteries, and will cycle up to 10 times more often without losing their specifications. The pure-lead construction allows for more powerful discharge, faster recharge, and in most cases, installation without a battery isolator when used in parallel with the factory vehicle battery.



^{*}NASCAR is a Registered Trademark of the National Association for Stock Car Auto Racing Inc.

SPL Series Batteries are available at your Authorized U.S. Amps Dealer, or they can be ordered factory-direct using the form at the back of this manual, or from our internet web site, www.usamps.com. Additional battery information is also posted, with an email address for technical questions.

CARE AND FEEDING OF YOUR BATTERIES

As mentioned before, most batteries are built for the relatively light chore of starting the engine. Unless you have the room and ambition to install an upgraded high-powered alternator, your system current requirements may exceed the charging capability of your car's electrical system. When this happens, you have to rely on the vehicle battery(s) to make up the difference.

Another factor to consider is voltage. Although the electrical system is considered to be "12 volt", the battery, when healthy, actually "rests" at 12.6 volts. The average alternator "puts out" *14.4 volts* when the engine is on, because it is necessary to "feed" a battery higher voltage in order for it to charge.

ENERGY MANAGEMENT PRODUCT

All amplifiers operate more efficiently at 14.4 volts, and many, including U.S. Amps, put out more power at the higher voltage.

U.S. Amps builds two *Energy Management* products, one to recharge the batteries, and one to increase the system voltage. Both units install and look like amplifiers.

THE US-12V30

The 12V30 is a 7" long *power supply* that plugs into 110V AC wall current and delivers up to 25 amps of DC current at 14.4 volts. The 12V30 is *current-limited*, meaning that it will charge a battery until it is full, then maintain a "float" of 14.4 volts.

Floating your batteries at 14.4 volts when they are not in use is the best way to extend battery life. The concept of the 12V30 is to "plug in" your vehicle when it's not being driven. The 12V30 will "slow charge" the batteries and keep them in optimum condition.

It often takes a depleted lead-acid battery over *8 hours* to recharge, sometimes longer. When is the last time you drove your car for 8 hours without the radio on? The 12V30 will do the job while you sleep or work.

THE OPTIMIZER

THE OPTIMIZER is a DC to DC converter, it stabilizes and regulates the vehicle voltage to 14.4 Volts at 100 amps or 16 Volts at 90 amps. THE OPTIMIZER accepts a wide range of input, from 8 to 16 volts DC. An external voltage monitoring terminal is included to allow THE OPTIMIZER to compensate it's output voltage for wire loss. Multiple OPTIMIZER units can be used *in parallel* for any current demand. If the maximum current output of THE OPTIMIZER is exceeded, it will gradually reduce output to slightly less than the input battery voltage, preventing a total interruption of power. If left inactive, (turned off) or if the input voltage exceeds 16 volts, THE OPTIMIZER will "bypass" allowing current to "flow through" without appreciable loss. In addition, like all *U.S. Amps*, THE OPTIMIZER is protected against thermal damage by a solid-state 10.000 cycle thermostat. Additional information about the 12V30 and THE OPTIMIZER can be found on the U.S. Amps Internet web page: <u>www.usamps.com</u>.

	Costantions AMPLIFIER SPECIFCATIONS					
	Model	Bridged Output	THD @ 4 Ohms	S/N Ratio	Damping Factor**	Slew Rate
	50X	160W @ 4 Ohms	<.006%	102dB	>200	30Vus
	100)	350W @ 4 Ohms	<.006%	102dB	>400	30Vus
	150)	500W @ 4 Ohms	<.006%	110dB	>600	150Vus
	300)	900W @ 4 Ohms	<.006%	110dB	>800	150Vus
	400)X	1500W @ 4 Ohms	<.006%	115dB	>1000	150Vus
	(New Model- June 1999)	160W X 2 @ 4 Ohms	T/B/A*	T/B/A*	T/B/A*	T/B/A*
	(5 Channel Sys- tem Amplifier)	The 5500x Does Not Bridge	<.006%	115dB	Mid: >200 Sub: >400	150Vus
୍ଷ	USA-50	160W @ 2 Ohms	<.006%	102dB	>200	30Vus
R	USA-100	315W @ 2 Ohms	<.006%	102dB	>400	30Vus
SER	USA-150	450W @ 2 Ohms	<.006%	110dB	>600	150Vus
S	USA-300	810W @ 2 Ohms	<.006%	110dB	>800	150Vus
IS!	USA-400	1200W @ 2 Ohms	<.006%	115dB	>1000	150Vus
	USA-800	3000W @ 2 Ohms	<.006%	115dB	>1000	150Vus
NO	USA-50HC	375W @ 1 Ohm	<.006%	110dB	>600	150Vus
sTIπ]	USA-100HC	800W @ 1 Ohm	<.006%	115dB	>1000	150Vus
OMPETITION	VLX-25	400W @ .5 Ohms	<.006%	115dB	>1000	150Vus
Ŭ	VLX-400	2400W @ 1 Ohm	<.006%	115dB	>1000	150Vus

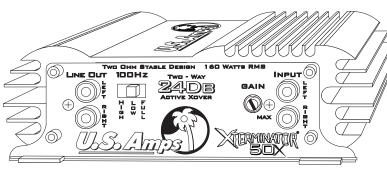
*Specifications subject to change without notice. **Measured at 4 ohms at the circuit board. 10



USA-50, 50x, USA-100 and 100x Controls and Features

Built-in Active Crossover / Line Level Output:

The 2-way fixed-frequency 100Hz crossover can be configured to input the stereo high pass signal at 18db and output the summed-mono low pass signal at 24db to another amplifier, or vice-versa. The crossover can be defeated for full-range in / out.



Power LED Indicator:

Gain Control:

Amplifier Input: The USA-50 and 100 feature input isolation and a built-in voltage divider that will accept input signals from nearly any source. It is necessary to provide input to both channels when operating the amplifier. Sensitivity

150mv - 3 Volts. WARNING: U.S. Amps require a grounded input connection. DO NOT use ground-loop isolation devices on the input of your U.S. Amp!

The green light in the middle of the palm tree is connected to the amplifier's power supply, and only lights when the amplifier is in working order.

Smart Amp Technology:

wer supply, and high fidelity. The input sensitivity can be infinitely adjusted in working order. from 150mv to 10 Volts.

Both models incorporate a non-computerized version of SAT (U.S. Amps' exclusive Smart Amp Technology) that precisely monitors each amplifier channel, the battery voltage, and amplifier temperature. In the event of a fault condition, SAT will activate to protect the amplifier from damage.

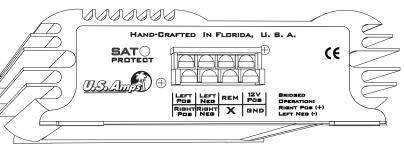
Well-Engineered From Quality Materials:

The USA-50 and 100 feature Mil-Spec FR-4 plated-through circuit boards, stuffed with 1% tolerance parts and U.S. Amps' own handwound power transformers. The amplifiers are housed in a bead-blasted or custom polished anodized heat sink. The U.S. Amps logo is laser-etched or displayed on a solid zinc emblem.

Connections:

All power and speaker connections are via a heavy-duty barrier terminal with gold-plated hardware. Use at least 8 gauge wire for all power and ground connections.

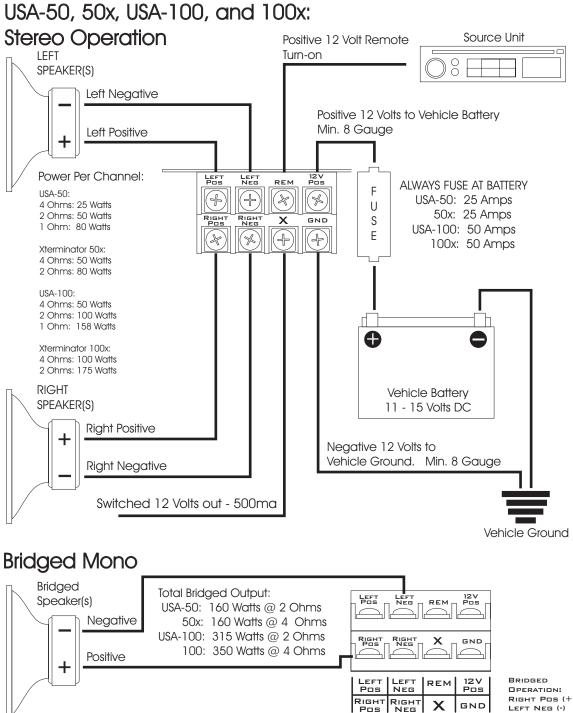
The gain control is water and dust-proof for long life and



Clear Plexiglas Bottom:

U.S. Amps are hand-crafted to a high standard of quality in our Gainesville Florida factory, and are thoroughly inspected for both cosmetic and operational perfection. A clear bottom panel displays the attention to detail found in every U.S. Amp.

EXCLUSIVE SMART AMP TECHNOLOGY





Х

GND





Amplifier Input:

The USA-300 and 300x feature input isolation and a built-in voltage divider that will accept input signals from nearly any source. It is necessary to provide input to both channels when operating the amplifier. Sensitivity150mv - 3 Volts.

WARNING:

U.S. Amps require a grounded input connection. DO NOT use around-loop isolation devices on the input of your U.S. Amp!

Gain Control:

The gain control is water and dust proof for long life and high fidelity. The input sensitivity can be infinitely adjusted from 150mv to 3Volts.

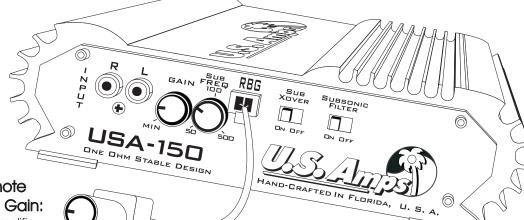
USA-50HC, USA-150, 150x, USA-300 and 300x: **Controls and Features**

Active 24db Low Pass Crossover:

The low-pass crossover can be infinitely adjusted to "roll off" at 24db per octave at frequencies between 50Hz and 500Hz. The crossover can be defeated for full-range operation.

Subsonic Filter:

To optimize amplifier power in the audible frequencies, a defeatable 36 Hz subsonic filter provides a 12db per octave roll-off.



Remote Bass Gain:

The amplifier volume can be adjusted

remotely from the passenger compartment, independent of the system volume. The RBG works within the input volume range set by the GAIN control, and is about 75% effective. The RGB comes with a knob and 15' of cable.

Clear Plexiglas Bottom:

U.S. Amps are hand-crafted to a high standard of quality in our Gainesville Florida factory, and are thoroughly inspected for both cosmetic and operational perfection. A clear bottom panel displays the attention to detail found in every U.S. Amp.

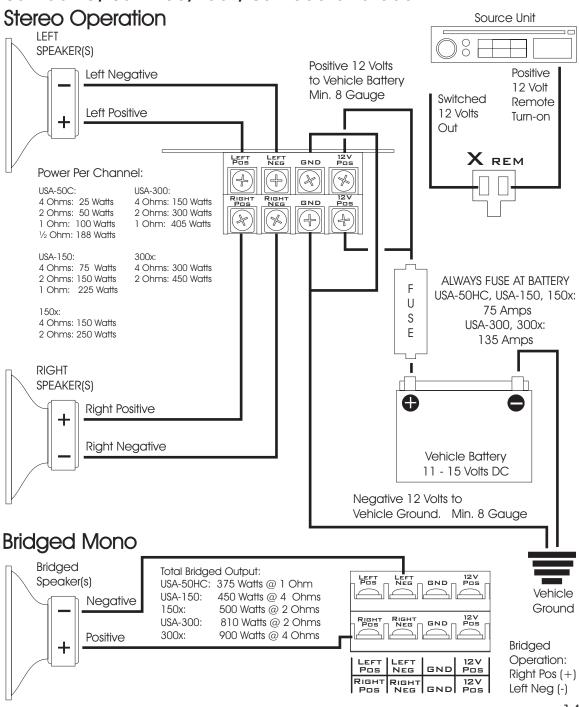
Smart Amp Technology:

Both models incorporate a SAT (U.S. Amps' exclusive Smart Amp Technology) that precisely monitors and tracks vital amplifier information, including the type and frequency of fault conditions, battery voltage, and amplifier temperature. A built-in computer stores data that can be read by the Dealer with a U.S. Amps data port interface to aid in system problem-solving. In addition, SAT keeps permanent record of the amplifiers' serial number and time of operation.



Оит

EXCLUSIVE SMART AMP TECHNOLOGY



USA-50HC, USA-150, 150x, USA-300 and 300x:

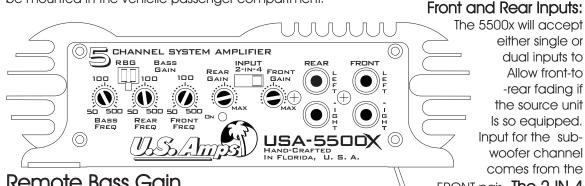
14



USA-5500x **Controls and Features**

Five Channel System Amplifier:

The USA-5500x features a two-way electronic crossover with independent front and rear mid-high frequency adjustment, two ohm per channel stability, and a Remote Bass Gain control that can be mounted in the vehicle passenger compartment.



Remote Bass Gain

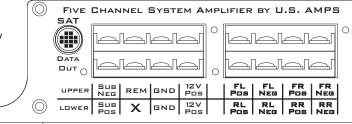
The USA-5500x comes with an optional "Remote Bass Gain" or "RBG" that can be mounted in the passenger compartment to independently attenuate the low pass output. The "BASS GAIN" located on the terminal endplate of the unit is used both to set the level of the low pass output and control the range of the RBG. It does

not matter which way the RBG cable is connected. Use a common screwdriver tip or something like it to tighten the RBG knob.

Crossover Frequency Adjustments

The two-way crossover of the 5500x "splits" the full-range audio signal into high and low frequencies. The highs are reproduced by four 75 watt channels that are 2 ohm stable. The low frequencies are summed monaural and played by a single 250 watt channel that will produce 350 watts into 2 ohms. Independent frequency controls adjust the "roll-off" of the high and low frequencies from 50Hz to 500Hz at 12 Db per octave.

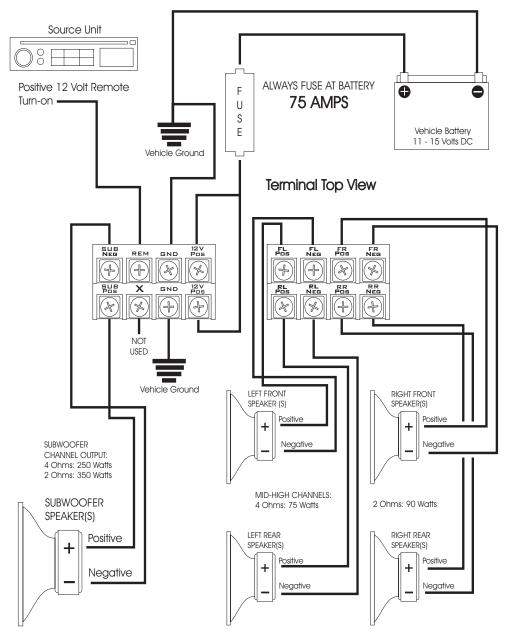
The low frequency control limits the high frequency response of the low pass output, and the high frequency control limits the low frequency response of the high pass output.



the source unit Is so equipped. Input for the subwoofer channel comes from the FRONT pair. The 2-IN-4 INPUT Switch, located between the front and rear GAIN controls. switches between 2 and 4 channel

Input.,

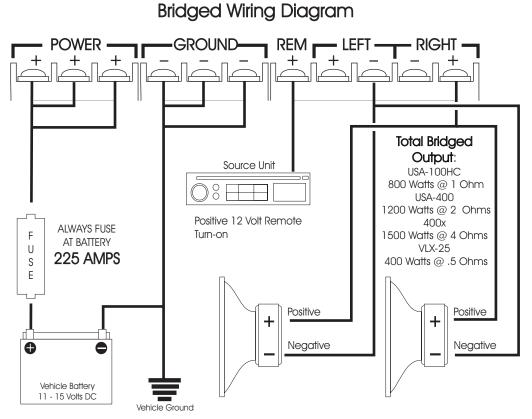
Xterminator 5500x Five Channel Operation:





Features and Wiring USA-100HC, USA-400, 400x, VLX-25

All four of these amplifiers are based on the same circuit board. They use different transformers and output components, but they share many similarities. The input section is isolated and must receive an input ground to function properly. A minimum of 8 gauge wire must be used for all power and ground connections.



Rear View-Terminal Endplate

Factory Service:

If you have a problem with your U.S. Amp that requires service you can either take it to the Dealer, who will send it back to the factory, or you can return it to the factory yourself. If you choose to send it in yourself you must first get a "Return Authorization" number from U.S. Amps that must be displayed on the outside of the shipping carton.

U.S. Amps will not accept packages for service that do not display a valid Return Authorization number. We don't like the red tape any more than you do, but it's the only way to keep things straight. There will be a charge for service unless the unit is under warranty <u>and</u> accompanied by a copy of the sales receipt. Remember to double box and insure your amp.

Limited Warranty:

U.S. Amps Inc. warrants all manufactured electronic products to be free from defects in material and workmanship for a period not to exceed TWO YEARS from the date of purchase when installed by an Authorized U.S. Amps Dealer.

All other units not installed by an Authorized U.S. Amps Dealer maintain a warranty not to exceed 90 days from the original date of purchase by the original purchaser.

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

Return Authorization Numbers are available by calling (352)-338-1926 between the hours of 9:00am and 5:00pm EST.

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 U.S. Amps Factory or an Authorized U.S. Amps Warranty Station. U.S. Amps Inc. will pay return freight on all warranty repairs.

This warranty covers only defects in materials and workmanship of manufactured electronic products, i.e. amplifiers and signal processors, and does not extend to batteries or other accessories bearing the U.S. Amps name. Incidents of misuse, abuse, neglect, or unauthorized modification will not be covered within the terms of this warranty.

U.S. Amps Inc. reserves the right to refuse warranty service under such conditions.

U.S. AMPS INC. 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 U.S. AMPS 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. U.S. AMPS INC. ASSUMES NO RESPONSIBILITY FOR YOUR HEALTH OR SAFETY.

Any dispute arising from this warranty, or breach thereof, must be entered in the circuit court of Alachua County, Florida. This warranty gives you specific legal rights that may vary from state to state.

NEVER NEVER LAND:

NEVER USE A U.S. AMP WITH A GROUND LOOP ISOLATOR OR AN ISOLATED INPUT SIGNAL. U.S. Amps are input-isolated at the factory and require an input ground for proper operation.

NEVER INSTALL OR MOUNT YOUR AMPLIFIER DIRECTLY TO A SPEAKER ENCLOSURE OR ANYWHERE ELSE WHERE SEVERE VIBRATION IS PRESENT. Protect your investment. Use common sense. Make sure the spot you choose is well-ventilated and free from dirt and moisture.

NEVER USE YOUR U.S. AMP BELOW THE RATED MINIMUM IMPEDANCE. Remember, when you bridge your amplifier, each channel "sees" one half of the load, hence at 4 ohms bridged each channel is operating at 2 ohms, which is the minimum impedance for XTERMINATOR models. U.S. Amps makes the USA Series of 1 ohm stable amplifiers if you wish to bridge into 2 ohms, plus an array of "high current" products that are purpose-designed to operate at even lower impedances. FAILURE TO OBSERVE THIS BASIC RULE WILL RESULT IN A SENSELESS WASTE OF POWER AND PERFORMANCE, and could damage your amplifier.



ORDER FORM

Rush me the following cool U.S. Amps Items. Enclosed is my check or money order for the amount of \$_____ dollars.

I gotta have it!

NAME		
ADDRESS		
CITY		ST
ZIP	PH	
Email Address	_	

Make sure the amount on your check equals the GRAND TOTAL amount. Credit Cards accepted via the U.S. Amps Internet site: www.usamps.com



Prices and specifications subject to change without notice. Copyright 1999 U.S. Amps Incorporated. All rights reserved.