

1999 USA-400 and XTERMINATOR 400x Technical Information by **U.S. Amps**

Manufacturer: U.S. Amps Inc.
Product Type: Bridgable two-channel audio amplifier.
Physical Specifications: Size: 2.1" H X 7.5" W X 23.75" L (including terminals)
Weight: 17 lbs.
Material: Heat Sink: Bead-blasted anodized 60/63 aircraft aluminum alloy, T-6 temper. Laser-etched U.S. Amps logo.

End plates: .062" painted steel.
Bottom Plate: .125" clear Plexiglas.

Amplifier Circuit Topology:

Number of Channels: 2

Circuit Board: Mil-spec FR-4 double-sided plated through 2 ounce SMOBC. (so *there!*)

Input: Ground-reinforced dual gold-plated RCA jacks. Input-isolated to effectively eliminate ground loops and subsequent system noise. A built-in voltage dividing network will accept high and low level signal from nearly any source, including most OEM and high-powered BTL units.

Potentiometers: Sealed custom-built 7mm linear taper. Water and dust-proof.

Phase Inversion: The left channel is inverted using a premium Analog Devices AD-714 high-speed op amp to allow for convenient bridging or stereo / mixed-mono operation.

Signal Path Components: All polypropylene capacitors and 1% tolerance resistors.

Operation: Class A-B utilizing isolated triple darlington dual-differential pairs with complementary-symmetry outputs.

Amplifier Filtering:

USA-400: 12,000mfd

400x: 5,640mfd

Power Rails:

USA-400: 45 Volts

400x: 65 Volts

Drivers: Matched triple darlington configuration.

Output Components: Twenty 125 watt 3MHz bipolar transistors. (2500 watts)

Rated Amplifier Output @ 4Ohms per Channel.:

USA-400: 400 Watts

400x: 800 Watts

Amplifier Overage Factor:

USA-400: 6.3:1

400x: 3.1:1

Output Signal Delivery: All high level signals exit the circuit board via 8 gauge oxygen-free Ultraflow wire by Esoteric Audio.

External Speaker Connections: Via heavy duty gold-plated 8mm barrier terminal. 10 gauge or larger speaker wire is suggested.

Power Supply: Non-regulated Ultrafet.

Power Requirements: 10-15 volts DC. Over and under voltage protected.

Input Filtering: 16,000mfd low ESR capacitors.

Transformer: Dual hand-wound 2.5" ferrite in master / slave configuration with quad solid copper 14 gauge primary and dual 12 gauge secondary windings.

Oscillation Frequency: 37KHz

Pulse Components: Twenty-four 75 amp 60 volt Ultrafets. (1,800 amps)

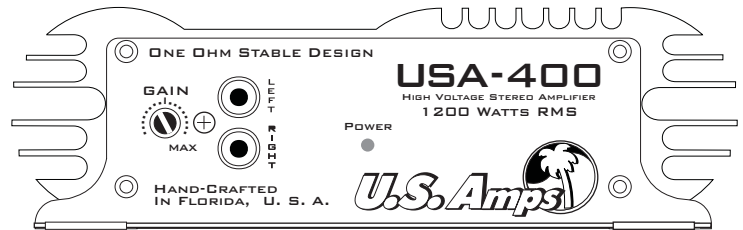
Power Supply Output Current:

USA-400: +/-45 Volts @ 48 Amps

400x: +/-65 Volts @ 35 Amps

Overage Ratio: USA-400: 10:1 400x: 9.5:1

Protection: 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.



<u>SPECIFICATIONS:</u>	USA-400 (Pictured)	400x
<u>Watts per Channel</u>		
4 ohms:	200 Watts	400 Watts
2 ohms:	400 Watts	750 Watts
1 ohm:	600 Watts	N/A
<u>Bridged Output:</u>	1200 Watts @ 2 Ohms	1500 Watts @ 4 Ohms
<u>THD:</u>	<.006%	<.006%
<u>S/N Ratio:</u>	> 100db	> 100db
<u>Frequency Response:</u>	5Hz-50KHz	5Hz-50KHz
<u>Fuse:</u>	225 Amps	225 Amps