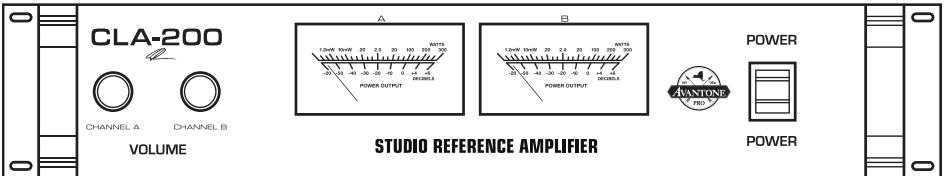




# CLA-200

## Studio Reference Amplifier



***Class A/B 200 Watts per channel, 500W mono***

## ***Greetings from Chris Lord-Alge!***

Welcome to the CLA-200 Studio Reference Amplifier. I have mixed 20,000 songs on my classic studio monitors and they have become my companions and part of what I do! They are truly the sound of hits! Every good pair of monitors needs a power house of an amplifier to give you clear results.

So now thanks to Avantone Pro and the ears of CLA we make available to you for the first time the return of a classically designed amplifier for your studio.

No longer do you need to take a chance on something used and old and unreliable. The CLA-200 is here!!!!

All the best,



Chris Lord-Alge

## **IMPORTANT SAFELY INSTRUCTIONS**

1. Read these instructions.
2. Keep these instructions
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
9. This appliance has a protective earth terminal which must be connected to a mains outlet with a protective earth connection.
10. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or third is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
11. Caution: The power cordset used in the apparatus is rated 125VAC for use in the USA and Canada only. If the apparatus will be used in another country, with different mains voltage, or is connected to a higher input voltage, the power cordset must be changed to one with a suitable rating and fully compliant with local regulations.
12. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
13. Use only attachments/accessories specified by the manufacturer
14. Use only with a cart, stand, tripod, bracket or table specified by the manufacturer, or sold with the apparatus. When a



cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

15. Unplug this apparatus during lightning storms or when unused for long periods of time.
16. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

17. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
18. This apparatus shall not be exposed to dripping or splashing, and no object filled with liquids, such as vases, shall be placed on the apparatus.
19. Not that this apparatus is not completely disconnected from the AC mains service when the power switch is in the OFF position.
20. The mains plug or an appliance coupler is used as the disconnect device, so the disconnect device shall remain readily operable.
21. Any changes or modifications not expressly approved in this manual could void your authority to operate this apparatus.
22. Minimum distance of 5 cm around the apparatus for sufficient ventilation.
23. Ventilation should not be impeded by covering the ventilation openings with items such as newspaper, table-cloths, curtains etc.
24. No naked flame sources such as lighted candles should be placed on the apparatus.
25. Use of apparatus in tropical climates is discouraged please use in moderate or controlled climates.
26. Exposure to extremely high noise levels may cause permanent hearing loss. Individuals vary considerable in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a period of time. The U.S. Government's Occupational Safety and Health Administration (OSHA) have specified the permissible noise level exposures shown in the following chart.

According to OSHA, any exposure in excess of these permissible limits could result in some hearing loss. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels use hearing protectors while the equipment is in operation. Ear plugs or protectors in the ear canals or over the ears must be worn when operating the equipment in order to prevent permanent hearing loss if exposure is in excess of the limits set forth here.

Duration, per day in hours	Sound Level dBA, slow response	Typical example
8	90	Duo in small club
6	92	
4	95	Subway train
3	97	
2	100	Very loud classical music
1,5	102	
1	105	That couple screaming at each other
0,5	110	
<0,25	115	Loudest parts at a rock concert

## **IMPORTANT !**

Be sure to select the proper operating voltage (and install the correct fuse) on the rear panel before plugging in the power cord. Improper selection can result in damage to the unit that will not be covered under the warranty.



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN

**ATTENTION**  
RISQUE DE CHOC ÉLECTRIQUE  
NE PAS OUVRIR



**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONEL.**

**Warning: To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture.**

The lightning flash with an arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

## INTRODUCTION

The Avantone Pro CLA Studio Reference Amplifier is a classically designed Class A/B amplifier. We took particular care to create an amplifier in the traditional studio style, with generous VU meters, high quality Japanese components and a serious toroidal transformer linear power supply. In a standard 2U rack mount chassis, this amplifier can generate over 200 watts per channel into an 8 ohm load, making it perfect for medium to large speakers in a studio environment. The CLA200 is convection cooled – no fan noise, so it can be used in the same room as the monitors.

The CLA200 Studio Reference Amplifier is designed to be used in a studio environment requiring high power output with no fan noise. Under testing, it delivers a powerful 208 watts into 8 ohms and can run at one third power without thermal fault.

The CLA200 was designed to be paired with the CLA-10 studio monitors, but it can be used with just about any demanding speaker load. Very low distortion, steady performance under harsh conditions, and an open and transparent sound make this an obvious choice for discerning studios.

## ENGINEERING OBJECTIVES

The **AVANTONE PRO CLA-200 Studio Reference Amplifier** is a dynamic, high output, high resolution, full-range system built the old school way. We included no-compromise components in a 2U convection cooled chassis to complement our CLA-10 Studio Reference Monitors. Of course, it can be used with any passive studio monitor requiring serious dynamic range.

## QUICK START GUIDE

- Select the operating voltage. If you are changing voltages, please be sure to change fuse values as specified on the rear panel
- Select operating mode: either two independent channels or mono bridged mode.
- Place volume controls to minimum
- Connect audio input, speaker cables and power cord with power switch in OFF position
- Plug power into AC source
- Turn on all upstream equipment; run outputs at minimum
- Turn on power switch
- Adjust volume to appropriate level at source and speaker
- Enjoy

## REAR PANEL CONTROLS / CONNECTIONS

- **BALANCED INPUT:** The XLR and phone plug inputs accept a BALANCED male XLR plug as well as a 3-conductor BALANCED TRS ¼" or a 2 conductor UNBALANCED TS ¼" male plug. For unbalanced operation with



## **Installation and Mounting**

All power amplifiers are 2-rack space units that can mount in a standard 19-inch rack. Four front panel mounting holes are provided. Rear mounting ears give additional support, they are especially important in mobile sound system. Because of the cables and connectors on the rear panel, a right-angle of offset screwdriver or hex key will make it easier to fasten the rear mounting ears to the rails.

## **Thermal Protection**

If the heat sink temperature reaches an abnormally high temperature, the amplifier will protect itself by disconnecting loudspeakers and shutting down until sufficiently cooled.

## **Short Circuit**

If an output is shorted ( i, e.. defective speakers or crossed speaker wires) the ZSP and thermal protection circuits will automatically protect the amplifier. The ZSP circuit senses the short circuit as an extremely stressful load condition and attenuates the signal, protecting the channel's output transistors from over current stress. If the short circuit remains, the load will be disconnected by the thermal protection circuit.

## **DC Voltage Protection**

If an amplifier channel detects DC voltage at its output terminals, the output relay will immediately open to prevent loudspeaker damage.

## **Connecting Power/Circuit Size Requirements**

Damage caused by connecting the amplifier to improper AC voltage is not covered by any warranty. Note: Always turn off and disconnect the amplifier from main voltage before making audio connections, and as an extra precaution, have the volume controls turned down during power-up.

## **Cooling Requirements**

The power amplifiers use a convection cooling system to maintain an even operating temperature. Air enters through the vents on each side and the bottom of the amplifier chassis and exits through the sides and top of the chassis. Make sure that there is enough space around the sides of the amp to allow the heated air to exit. If the amp is rack-mounted, do not use doors unless you have forced air cooling. Note: Whatever type of rack you are using, make sure that the heated air can escape freely, and that there is no resistance to the intake of cool air through the chassis.

## **SPECIFICATIONS**

8Ω Stereo Power (1KHz): 200W

4Ω Stereo Power (1KHz): 300W

8Ω Bridge Power (1KHz): 500W

Slew rate (at 1KHz) : 28V/us

Input Sensitivity (1KHz): 0.775V (0dBu)

Total Harmonic Distortion (1KHz) : <0.1%

Intermodulation distortion (at 10% rated power 1KHz): <0.1%

Crosstalk: -70dB

Frequency Response: 20Hz-20kHz +/-0.5dB

Input Impedance: (Balanced) 20KΩ (Unbalanced) 10kΩ

Damping Factor (100Hz, 8Ω) : 250

Signal to Noise Ratio (A Weighted) : >103dB

**AMPLIFIER:** Class AB

**CABINET DIMENSIONS:** 270Wx360Hx385D (10.6"x14.2"x15.2")

**WEIGHT:** 20kg (44lb)

**The AVANTONE ABBEY Monitors comply with all applicable / RoHS/  
WEEE European Union directives.**

**Do not attempt to service this unit yourself, as it will void your warranty. Please check your unit carefully upon receipt and return to place of purchase immediately if there are any problems with the product. After that, the standard AVANTONE 5 YEAR warranty will apply to defects in materials and workmanship.**

**(U.S.A.)** Should your AVANTONE product require service, please contact the AVANTONE PRO Service Department. +1 845 642 3697-*or*- e-mail [info@avantonepro.com](mailto:info@avantonepro.com). **You must obtain an RA # (Return Authorization number) from us before shipping a unit back to us. This RA # must be clearly written on the outside of the box.**

**Please safely pack the units...It is best to use the original packing materials. AVANTONE PRO cannot be responsible for any damages incurred in shipping to us due to poor packaging. PLEASE PACK CAREFULLY and FULLY INSURE THE SHIPMENT.**

**(INTERNATIONAL)** For service or warranty assistance, please contact the AVANTONE PRO distributor in your country through the dealer from whom you purchased this product.

## LIMITED 5 YEAR WARRANTY

Avantone Pro products are warranted by Avantone Pro Electronics to be free from defects in materials and workmanship for the period of 5 YEARS to the original purchaser. In the event of such defects, the Avantone Pro product will be repaired without charge or, at our option, replaced with a new one if delivered to Avantone Pro prepaid, together with a copy of the sales slip or other proof of purchase date. The warranty excludes problems due to normal wear, abuse, shipping damage or failure to use the product in accordance with the specifications.

Avantone Pro shall not be liable for damages based upon inconvenience, loss of use of the product, loss of time, interrupted operation or commercial loss or any other damages, whether incidental, consequential or otherwise. This warranty gives you specific legal rights, and you may have other rights, which will vary from state to state.

This warranty is not transferable.

Another fine product from...



[www.avantonepro.com](http://www.avantonepro.com)

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