

# USER INSTRUCTIONS

## V100A

*Reference*



**CLASS A MONO BLOCK POWER AMPLIFIER**

## ***WARNING: POTENTIAL SHOCK HAZARD!***

This product uses high voltage. There are no operator serviceable parts inside. Refer servicing to qualified personnel only. Observe all warnings and instructions marked on the product. Use only a grounded outlet.

Do not install or use this product near water or in wet environment. Install the product securely on a stable surface.

During operation the heat dissipaters and some other parts become hot: do not touch.

**TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**



This symbol is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



This symbol is intended to alert the user of the presence of non insulated "dangerous voltage" within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

## **Information:**

Marking by the "CE" symbol indicates compliance of this device with the EMC (Electromagnetic Compatibility) and LVD (Low Voltage Directive) standards of the European Community.

## TABLE OF CONTENTS

I.	<b>FOREWORD</b> .....	4
	1. Congratulations! .....	4
	2. VENTURE AUDIO .....	4
	3. V100A Reference .....	5
II.	<b>SAFETY INSTRUCTIONS</b> .....	6
III.	<b>OVERVIEW</b> .....	7
	1. Unpacking.....	7
	2. Positioning .....	7
IV.	<b>DESCRIPTION OF APPLIANCE ELEMENTS</b> .....	8
	1. Front Panel .....	8
	2. Rear Panel .....	8
V.	<b>OPERATION INSTRUCTIONS</b> .....	9
	1. Power Switch.....	9
	2. Operations .....	9
	3. Security.....	10
	4. Cleaning .....	11
VI.	<b>SPECIFICATIONS</b> .....	12
VII.	<b>WARRANTY</b> .....	13
	1. Duration .....	13
	2. Conditions.....	13
	3. Miscellaneous .....	13
VIII.	<b>FAQ</b> .....	14

# I. FOREWORD

## 1. CONGRATULATIONS!

You just purchase the V100A *Reference* Class A mono block Solid State amplifier. VENTURE AUDIO first wants to thank you for your trust.

The best components were hand selected and tested for its realization, as an extreme care was provided during its manufacturing. These attentions will permit to reach utmost listening pleasure with live performance satisfaction.

Used in conjunction with highest quality components - both V100A *Reference* are at their best with the VP100 *Reference* preamplifier, you can feel confident that all the recorded musical emotion will be played back to you.

## 2. VENTURE AUDIO

Established in 1987 VENTURE started with the production of Car speakers followed by Home High End speakers and cables.

In 1998 the first Tube Amplifier VENTURE REFERENCE ONE, a Single Ended mono block amplifier designed with special designed high power 300B tube family Venture 6300B, was born, and followed by its brother REFERENCE S-ONE a stereo version of the mono block. Both amplifiers was design to produce 25 watts output.

To full fill the desire for Live Performance, a higher power is necessary and a solid state 100 watts Class A amplifier was designed together with the preamplifier to achieve the aim. The preamplifier is design as a complete set for the highest demand today's music lovers in their music world of analogue and digital sources.

Both MC and MM phono stage is integrated in the system to achieve the highest quality for the vinyl analogue play back. Further a double subwoofer outputs are provided which enable the system to be used as a 2.1 or 2.2 system.

Four single ended and four balanced line inputs with individually adjustable gain are provided and makes the system unique.

No wish is left behind.

### 3. V100A Reference

**VENTURE AUDIO** is proud to present its brand new electronic products, the **V100A Reference** amplifier.

**V100A Reference** offers thanks to its **CLASS A** and its **mono design**, an unleashed live performance listening pleasure, with an even more fruited and carnal sound.

Its transparency and its dynamic are set for beyond common levels, and will allow you to drive any loudspeaker. **V100A Reference's** multiple **self-inductances filtered power-supplies** will permit to obtain an **exceptional signal-to-noise ratio**.

**VP100 Reference** Preamplifier remote control will toggle **V100A Reference** in normal operational or stand-by mode, to allow an immediate access to its highest level of musicality without any warm-up time as required at first power-on (8 hours).

## II. SAFETY INSTRUCTIONS

**Before operating your VENTURE AUDIO appliance, please read all instructions and cautions carefully and completely.**

1. **Always** disconnect your entire system from AC mains before connecting or disconnecting any cables, or when cleaning any components.
2. **Always** use a three-conductor AC mains power cord which includes an earth ground connection must be used. To prevent shock hazard, all three connections must be used.
3. **Never** use flammable or combustible chemicals for cleaning.
4. **Never** operate this product with removed cover.
5. **Never** wet the inside of this product with any kind of liquid.
6. **Never** pour or spill liquids directly onto this unit.
7. **Never** block air flow through ventilation slots or heat-sinks.
8. **Never** bypass any fuse.
9. **Never** replace any fuse with value or type other than those specified.
10. **Never** attempt to repair this product: contact your retailer.
11. **Never** expose this product to extremely high or low temperature.
12. **Always** unplug sensitive electronic equipment during lightning.

## III. OVERVIEW

### 1. Unpacking

Your package contains:

- A **V100A Reference** mono Class A amplifier.
- A main power cord
- This user manual.

We advise to use the **V100A Reference** amplifier with VENTURE **VP100 Reference** preamplifier. We will refer to this preamplifier RC5 remote control in this manual, mainly concerning the power blocks Stand-By mode.

### 2. Positioning

Your **V100A Reference** amplifier must be installed in a place about 20 cm away from the other appliance. This will guarantee the best signal-to-noise ratio.

You must keep about 20 cm of free space above the amplifier chassis, to allow proper heat dissipation.

Height and positioning within your furniture must be thought in a manner, where the angle with the remote control will not exceed 40 degree in both horizontal and vertical axis.

***Advise of use:***

***It is advised to lay the amplifier on an equipment platform on the floor.***

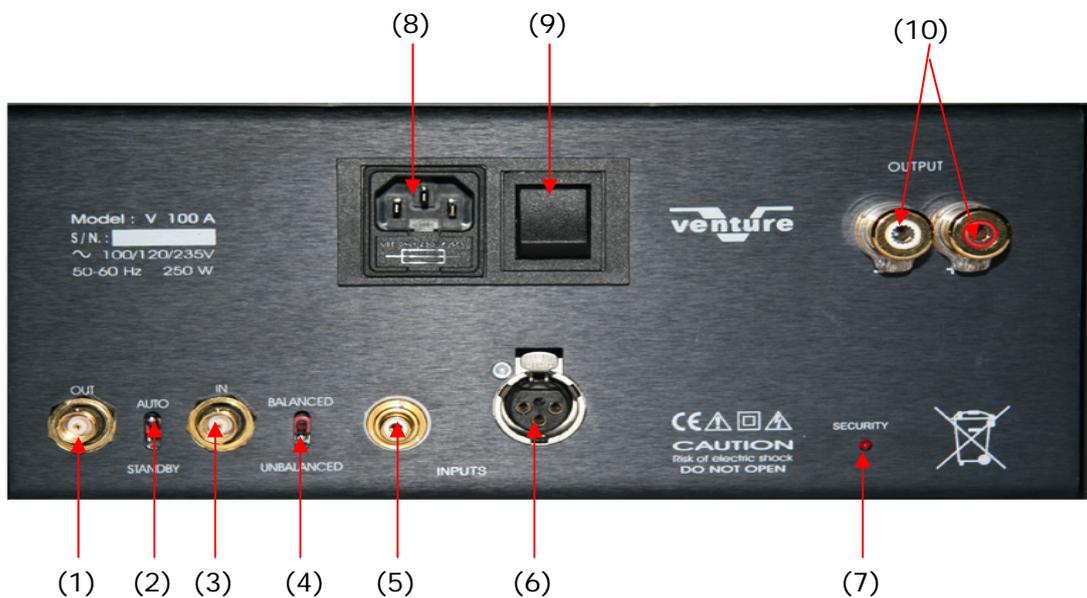
## IV. Description of appliance elements

### 1. Front Panel



ON (green)/STAND-BY (red)/OFF LED

### 2. Rear Panel



- (1) BNC output for stand-by mode
- (2) Stand-by mode selector auto or manual
- (3) BNC input for stand-by mode
- (4) Input selector XLR (balanced)  
Or RCA (unbalanced)

- (5) RCA mono input
- (6) XLR mono input
- (7) Security warning LED  
(default OFF)
- (8) Main power cord and fuse
- (9) ON/OFF power switch
- (10) Speaker mono output

## V. Operation Instructions

### 1. Power Switch

After having connected the input to the preamplifier and the output to the speaker, **V100A Reference** amplifier can be switched on using the power switch located on the rear panel.

If you own a **VP100 Reference** preamplifier, connect the BNC stand-by cable from the preamplifier to an **V100A Reference** amplifier BNC input, then connect the BNC output of this same block to the BNC input of the other channel amplifier. Your stand-by mode can now be activated.

It is advised not to switch off the **V100A Reference**, to fully and instantly benefit from its maximum musical quality. However, if you are meant to keep away for a long time (as for holidays), or in the case of any storm risk, it is considered safe to switch the appliance off, with the rest of your Hi-Fi elements.

### 2. Operations

Stand-by mode is accessible from the remote control of the **VP100 Reference** pre-amplifier, or using the stand-by switch at the back. Let this switch on the auto position if you own the **VP100 Reference** preamplifier. Stand-by mode allows to reduce dramatically the energy consumption of the appliance. Once awoken (disabling the stand-by mode), the amplifier will provide its optimum musical quality after only 15 minutes, whereas the first operation will require more than 4 hours of warm-up (as will require any main switch-on) to reach this same level. An amplifier under stand-by mode has its front LED lighted in RED, while GREEN in normal mode.

***At first power-on, some light buzzing sound may be heard for about a minute within the speakers. This is due to the current initialization within the circuits.***

The **V100A Reference** mono block offers 2 inputs (1 unbalanced RCA and 1 balanced XLR). The choice of the input is made using a switch (2-positions selector) at the rear of the appliance.

The "unbalanced" position correspond to the RCA "Cinch" input.

The "balanced" position correspond to the XLR input.

### 3. SECURITY

VENTURE AUDIO appliances are designed to operate in a perfect reliable and durable condition. This operation can however be influenced by external events. Some of them will require the action of the inner **V100A Reference** security system.

This security system aims at protect the appliance from any over-voltage, for instance, as they also act to protect the whole Hi-Fi elements under the amplifier « responsibility ». Speakers for instance are this way protected from DC offset, often issued by source components such as CD players ; once amplified, they can cause irreversible damages.

Once activated, the security system cuts the general power-supply of the appliance, and the back red security LED lights on. Please correct the problem (be it a DC offset for instance) before switching the appliance off. Then switch the appliance back on after a few seconds. If the issue was external and is now fixed, the amplifier will operate normally, and the security LED will be off.

A fuse is placed within an AC plug socket to protect the appliance against mains AC over voltage. Please, only replace the fuse with the same one, as described hereunder. In case of difficulties to find these fuses, please contact us.

Another fuse is placed within the amplifier to protect the appliance against loudspeakers wire shortcuts, or an excessive current output (for instance while using too low impedance speakers). In this case, please check and fix any problem and replace the fuse. Please, only replace the fuse with the same one, as described hereunder. In case of difficulties to find these fuses, please contact us.

A last security system has been set to protect the appliance against thermal run-aways. It forces the appliance to stand-by mode until it cools down to the proper temperature (front LED red). You can quicken the cooling by switching the appliance off.

For more information on the reasons of security system calls, please refer to the associated table within the « questions and answers » chapter.

At last, it is important to underline that these are exceptional cases, which never occur under normal conditions and good quality Hi-Fi elements (this implies that normal conditions do not call the security system and consequently do not require fuse changes).

#### **External:**

A 5A (ST) slow fuse is used on the mains socket base (for 230V)

A 8A (ST) slow fuse is used on the mains socket base (for 100-120V)

#### **Internal:**

A 8A (F) fast fuse is placed on the speakers output.

## 4. CLEANING

V100A *Reference* amplifier was designed to operate perfectly with no specific setting or maintenance for a large number of years.

In case of dust removal, plainly process using a clean dry rag. In case of a dirty mark, DO NOT use any detergent or solvent, but use a clean wet rag.

**Caution:**

NEVER clean any appliance while in operation.

## VI. Specifications

Type:	Amplifier
Nominal power:	50W Class A / 4 Ohms 100W Class A / 8 Ohms 200w 4 Ohms
Intermodulation Distortion (square wave):	< 0,05%
Input Impedance:	10 K Ohms
Harmonic Distortion:	< 0,05%
Signal-to-Noise ratio:	> 110dB
Damping factor:	400
Inputs:	1 XLR input 1 RCA input
Bandwidth:	0 à 150.000 Hz
Rise time:	< 2,5 $\mu$ s
Dimensions:	483 x 150 x 540 mm
Weight:	28 Kg / 62 lbs

## **VII. Warranty**

### **1. Duration**

VENTURE AUDIO products are warranted to be free of defects if used under normal conditions for a period of two (2) years from the date of purchase.

### **2. Conditions**

This warranty is subject to the following conditions and limitations. The warranty is void and inapplicable if the product has been used or handled other than in accordance with the instructions in the owner's manual, abused or misused, damaged by accident or neglect or in being transported, or if the defect is due to the product being repaired or tampered with or modified by anyone other than VENTURE AUDIO or an authorized repair center, or in case of removal, defacing or falsifying of the serial numbers.

### **3. Miscellaneous**

Any implied warranties relating to the above product shall be limited to the duration of this warranty. The warranty does not extend to any incidental or consequential costs or damages to the purchaser.

## VIII. FAQ

### **What difference between VENTURE and standard stand-by mode?**

VENTURE stand-by mode does not switch off fully the appliance. Only the power stages are shut-off. They are the main current consumers. The heart of the amplifier stays warm and operational. This allows to get the full musical quality back in about 10 to 15 minutes after waking the appliance back up. A standard switch-on of the appliance requires about 8 hours to get that same level back. The current consumption is divided by about 10 in stand-by mode. VENTURE however recommends to switch the appliance fully off when leaving it unused for long periods (holidays...).

### **Can the provided mains cable be changed?**

Provided mains cable answers to standard norms. It can however be replaced by a high fidelity mains cable, if it answers to the same norms. A very sensitive musical gain can be heard, depending on the chosen cable. VENTURE AUDIO can help you in making this choice if it is your will. Caution. When changing this cable, please follow the polarity conditions of your country. Phase location is different for instance between US and French norms. While it would not prevent the appliance to operate, a sensitive loss could be heard (sound laid back).

### **Is there any specific order to switch my Hi-Fi elements on?**

Absolutely. While it is not specific to VENTURE products. Always switch on the source elements first: they sometimes emit a spark at switch on, and this must not be amplified and pushed to the speakers. Then follow down the elements. We provide hereunder an example of a switch-on chain: CD player, decoder (DAC), preamplifier active crossovers, then amplifiers.

To switch off, please follow the reverse order.

### **Is there any specific order to switch my Hi-Fi elements off?**

Absolutely. While it is not specific to VENTURE products. Always switch off the source elements last: they sometimes emit a spark at switch off, and this must not be amplified and pushed to the speakers. Start from the bottom, then follow up to the source elements. We provide hereunder an example of a switch-off chain: amplifiers, active crossovers, preamplifier, decoder (DAC), CD player.

To switch on, please follow the reverse order

### **Heat dissipaters are very hot? Is it dangerous?**

VENTURE products aim at get the maximum from all internal components. Heat dissipaters are pushed to their optimum to guarantee a maximal class A operation, as it means excellence in musical quality. However, VENTURE products follow security norms and do not push the heat beyond legal limits. There is consequently no excessive heat: contact is hot, but do not get warmer with time (once appliance is considered warm). Also, heat regulators are used to prevent any thermal runaway and this way protect the appliance. This inevitably limits the level of class A at high volumes.

## What specific handling instructions for VENTURE appliances?

See "Operation instructions".

Please note however, that it is always safe to switch off and unplug all mains cables before handling any cable from the system, being interconnects, mains, speakers, or digital. This caution is not specific to VENTURE products.

Also, please allow 30 seconds (mainly to the power appliances) before unplugging the cables. This will let the capacitors to empty themselves smoothly (no spark effect).

These cautions are not simply an instruction manual chapter. Many problems and failures can really this easy be avoided (ground short-cuts, sparks on appliances...).

## The appliance does not switch on. No sound comes out. What can I do ?

This is a vague question. We can only provide some clues to help you check the main issues. Please check this list before contacting us.

1. Check your house mains alimentation
2. Check that your mains cable is connected to a wall-outlet (AC alimented)
3. Check that your mains cable is connected to the **V100A Reference** inlet
4. Check that your appliance voltage is compliant with your domestic one
5. Check that the rear switch is set to ON
6. Check that your amplifiers are ON
7. Check that the preamplifier/amplifier are not in stand-by mode
8. Check that the remote control is operating (with right AAA batteries) to have your appliance waken up from the stand-by mode (if it was)
9. Check that source elements are ON (CD player...)
10. Check that source elements are connected to an **INPUT** plug on your preamplifier.
11. Check that you selected that ACTIVE input
12. Check that your preamplifier and amplifiers are rightly connected (eventually through active crossovers)
13. Check that your active crossovers (if any) are ON
14. Check that your speakers are connected to the amplifier. This check concerns every pair if you use multi-wiring. Also check the cables on your speaker and crossover ports.
15. Check that the appliance is not OFF due to the security-system. Unplug all, and switch it back on once you have changed the faulty fuse.

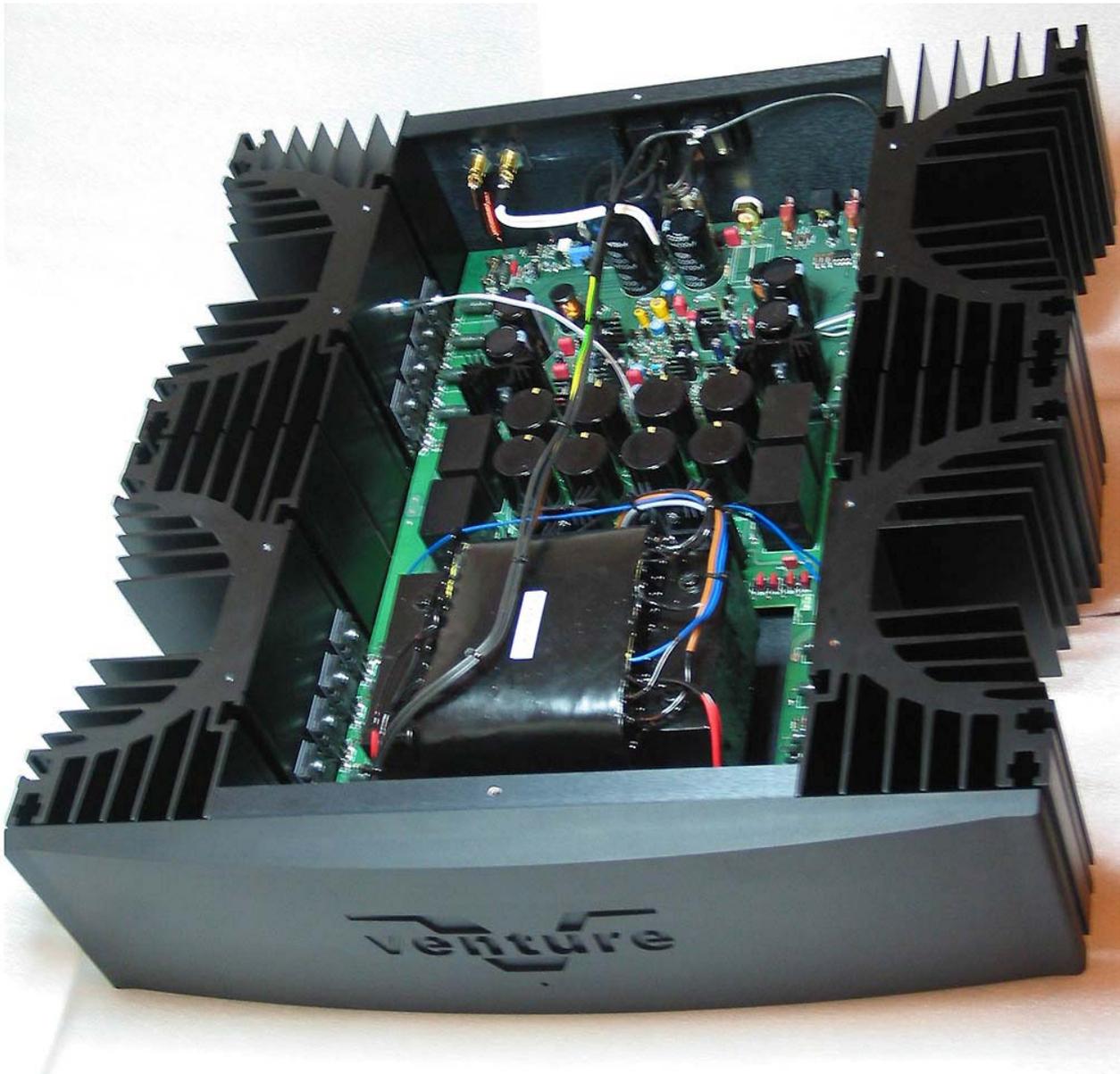
## What are the security system-call causes ?

See security chapter for more explanations.

Cause	External fuse	Security system	Internal fuse	Comment / solution
Over-tension (mains provider)	X	X		Rare. Change the fuse. Unplug and switch back on.
DC offset input		X Back LED: on		Generally comes out source elements such as CD players. Unplug all cables but AC mains. Switch the appliance back on. It must operate perfectly alone. In that case, have your faulty element fixed/repaired accordingly.  If the security LED stays on, while the amplifier is only connected to AC mains (with input XLR/RCA disconnected), this indicates an internal failure. Please contact your servicing contact point.
Appliance internal failure	X	(or) X		The appliance alone does not operate. Check if heat dissipaters are abnormally hot. Contact us
Shortcut on speakers			X	No output sound, or very low one, which can sound bad while the appliance is ON and the display is Normal.  Check the wiring and components Replace the fuse
Output overload			X	No output sound, or very low one, which can sound bad while the appliance is ON and the display is Normal.  A too loud volume on low-impedance speakers can result in such an overload.  Replace the fuse
Thermal runaway		X Front LED: red		The amplifier puts itself in stand-by mode (front LED red) if overheating. Stop all music, and wait for the amplifier to cool down. It will turn back to normal operation (front LED green) once the proper heat is reached. <i>You can switch it off to quicken the cooling.</i>

**Note:**

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**VENTURE b.v.b.a.**

Hanendreef 23  
2930 Brasschaat  
Belgium

Phone: +32 (03) 6530732

Fax: +32 (03) 6531349

E-mail: [info@ventureaudio.com](mailto:info@ventureaudio.com)

Website: [www.venture-audio.com](http://www.venture-audio.com)