



**VK-60**

**WARRANTY REGISTRATION FORM**

Unit Serial Number: \_\_\_\_\_

Customer Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Purchased From:

Dealer Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

**IMPORTANT NOTE:**

In order to receive the full five year product warranty, please mail this completed form together with a copy of your sales receipt to Balanced Audio Technology at the address below, within **thirty days** of purchase.

Failure to do so will result in the product being warrantied for **one year** from the date of manufacture.



# **VK-60**

## **Balanced Power Amplifier**

### **Owner's Manual**

## Introduction

Thank you for your purchase of the Balanced Audio Technology VK-60 power amplifier. Please read this owner's manual to obtain the full benefit of the VK-60 in your system. This manual provides you with necessary safety information and operating procedures for this exceptional unit. For more technical information on the circuit design, please read the Balanced Audio Technology VK-60 White paper.

### WARNINGS:

To prevent the possibility of serious injury, electrical shock, or fire:

**DO NOT** operate with the bottom cover removed.

**DO NOT** expose to rain or moisture.

**DO NOT** defeat the ground power-plug.

**DO NOT** replace fuses with anything other than the same type and rating as supplied by the factory.

## Package Contents

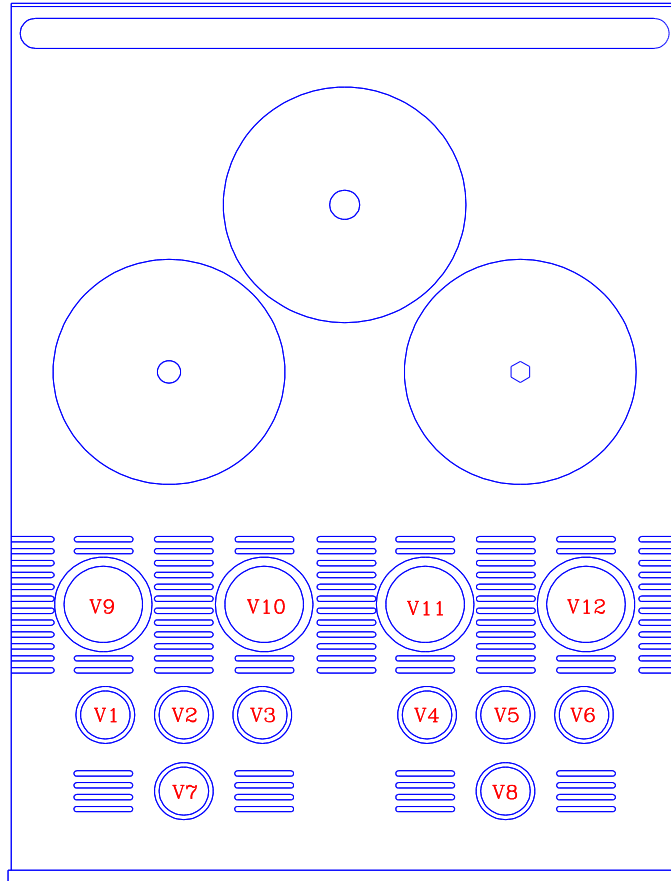
Included in the box should be the following:

<b>Description</b>	<b>Quantity</b>
VK-60 Power Amplifier	1
6C33C-B Output Tubes	4
6SN7 Signal Tubes	8
Power Cord	1
Torx Wrench (T-10)	1
Spare Cover Screws	5
Spare Fuses	5
Owner's Manual	1
Optional Accessories	(as ordered)

Save all the packaging materials in a safe dry area for the unlikely event that you need to return the VK-60 to the factory for service.

## Installing Tubes

The eight signal 6SN7 tubes are labeled from V1 to V8. The numbers are written on each tube's glass envelope. To replicate the factory test status, please install these tubes in the correct numbered locations provided in the attached diagram. Note that should you need to replace any 6SN7 tube at a later date, no critical matching or number is required. Output 6C33C-B tubes (V9 through V12) can be installed in any of the four output sockets.



## Physical Placement

It is recommended that you provide open space above the unit for proper ventilation, with no electronic components placed directly overhead.

Mount the unit on a hard surface with proper ventilation underneath. Avoid placing the unit directly on a carpeted floor.

## Connecting the VK-60 to Your System

### For Balanced Preamplifiers:

Use balanced XLR interconnects. The left and right channel input connectors are clearly marked on the back panel of the VK-60.

**Note:** The VK-60 XLR inputs are wired as follows:

Pin 1:	common/shield
Pin 2:	positive
Pin 3:	negative

### For Single-Ended Preamplifiers:

Single-ended preamplifiers have RCA connectors. The VK-60 power amplifier is designed to work with either balanced or single-ended preamplifiers connected to its inputs. All that is required to connect a single-ended preamplifier with RCA connectors to the VK-60's inputs is the optional balanced to single-ended adapters. These adapters are available from Balanced Audio Technology at a nominal charge.

### For Speaker Connections:

The speaker connectors are clearly marked on the back panel of the VK-60. There are several sets of output taps marked LOW, MEDIUM and HIGH for connecting a variety of speakers to the VK-60. Please note that some experimentation may be required. Try each output tap until you find the one that gives the most balanced performance in your system.

## Operating the VK-60

Normal operation of the VK-60 requires simply turning the unit on. There are no meters to connect, bias setpoints to remember, or drifting bias points to adjust. Please read the **Autobias Feature** section for more details.

### Turning the VK-60 On:

The power switch is located at the rear of the unit. When you turn the unit on, it will go through a gentle power-on sequence. After about one minute, four LED's visible from the top of the chassis should light up. This indicates that full operating bias has been reached and the unit is now ready to play.

### Turning the VK-60 Off:

The unit can be turned Off at any time (even while playing). If needed, please wait at least 30 seconds before turning the unit ON again.

### Autobias Feature:

The VK-60 implements a sophisticated autobias circuit that automatically compensates for tube aging and line voltage fluctuations, as well as marginal mismatching of tubes. The successful operation of the autobias circuit is noted by individual LED's that glow visibly next to each output tube when viewed from the top of the chassis. A total of four LED's should light up to indicate proper operation of the circuit. If one of the LED's fails to light up (after the unit is warm), there could be two reasons for this problem:

1. The particular output tube is defective. In this case replacing this tube with a known good one should turn the LED ON.
2. The amplifier was overstressed and the protective fuse inside opened. These fuses protect output tubes from overloading. There are four fuses mounted on the two PC boards. Please refer to the section on replacing fuses for correct procedure.

## Replacing Fuses:

**WARNING: Please turn the unit OFF and disconnect the power cord before proceeding.**

There are five fuses in the VK-60. The main Slow-Blow fuse (10A rating for 110-120VAC line voltage and 5A for the 200-240VAC range) is located on the unit's back panel. The four 3A Fast-Acting protection fuses are mounted on the VK-60 printed circuit boards and can be accessed through the holes in the amplifier bottom plate. If the pilot LED on the front panel goes out, try replacing the main fuse on the back panel with the same type fuse.

If one or more of the autobias LED's has gone out, turn the unit off and wait for few minutes before proceeding, allowing the internal electrical charge to dissipate. Place the VK-60 on its side and hold securely. Through the access holes in the bottom plate, remove and replace the blown fuse with the 3A Fast-Acting type.

In either case, if the unit still fails to operate properly, please contact the factory for professional service.

**Factory supplied fuses should only be replaced with the same type and rating parts.**

## Replacing Output Tubes:

In order to replace the 6C33C-B output tubes, please contact the factory and supply them with the unique identification number stamped on the side of the tube needing replacement. This information will be used by Balanced Audio Technology to provide an optimal replacement tube for your amplifier.

**Please do not substitute any random tube as a replacement.** Although the automatic bias circuit in the VK-60 will accept virtually any random set of output tubes, the unit will not be guaranteed to meet all of its performance specifications under such conditions. Finally, the determination that a **single tube replacement** is prudent rests solely with the customer, based on actual hours of use for the particular set of tubes. The factory assumes no responsibility for possible performance decrease under such conditions.

**Servicing:**

The Balanced Audio Technology VK-60 should require no service other than tube replacement to maintain its high performance. Please direct any further service inquiries to the factory.

**Cleaning:**

To remove dust, occasionally wipe the front and top surfaces of your VK-60 with a damp soft cloth. If fingerprints appear, you may use a mild, non-alkaline soap solution. Do not use abrasive cleaners, as they may damage the fine finish of the unit.



# VK-60 Five Year Limited Warranty

## Terms and Conditions

### 1. Limited Warranty

Upon receipt of the attached warranty registration form, Balanced Audio Technology warrants the purchased product to be free from manufacturing, materials, and workmanship defects for **five years** from date of original purchase, excepting vacuum tubes, subject to the following conditions. **Failure to return the enclosed warranty registration form together with a copy of your sales receipt within 30 days from original purchase will result in a warranty period of one year from the date of manufacture.**

### 2. Vacuum Tubes

The 6SN7 vacuum tubes (including replacements under warranty) are warranted for one year from the date of the original VK-60 purchase. The output 6C33C-B vacuum tubes are warranted for ninety days.

### 3. Limited to Original Purchaser

This warranty is for the sole benefit of the original purchaser of the covered product, and may not be transferred to a subsequent purchaser of the product.

### 4. Conditions and Limitations

This warranty is subject to certain conditions and limitations, as follows. This warranty is void and inapplicable if the product has not been used in accordance with the instructions found elsewhere in this manual, or if it has been misused or abused, damaged by accident or neglect, or in transport once in possession of the purchaser. The warranty is also void if the product has been repaired, modified, or tampered with by anyone other than Balanced Audio Technology or its specifically authorized agents.

### 5. Remedy

If this product contains a materials, manufacturing, or workmanship defect that cannot be repaired at the dealership where the product was purchased, it must be packed in original packaging and returned to Balanced Audio Technology via insured freight, at the owners expense. If replacement packaging materials are required, they will be supplied by the factory at a nominal charge. **Returned products must be accompanied by a written description of the defect, and a return authorization number (available from the factory via phone or fax).** Upon receipt of defective product, Balanced Audio Technology agrees to repair the product without charge for parts (except vacuum tubes if the unit is more than one year old), or labor. The product will then be returned via prepaid, insured freight, with carrier at the sole determination of Balanced Audio Technology. This constitutes the purchasers sole remedy.

### 6. Design Changes

Balanced Audio Technology reserves the right to modify its products or change specifications at any time without obligation or liability to previous purchasers.

### 7. Miscellaneous

Any implied warranties relating to the above product shall be limited to the duration of this warranty. This warranty does not extend to any incidental or consequential costs or damages to the purchaser. This warranty gives you specific legal rights. You may also have other rights which vary from state to state.