The background is a hand-drawn circuit diagram on a piece of paper. It features a transformer with multiple secondary windings. One winding is labeled '100V'. Another is labeled '6.3 VAC @ 52'. A third winding is labeled '6.3 VAC @ 52'. There are also labels for wire colors: 'YELLOW', 'BROWN', and 'BROWN'. A capacitor is labeled '500MFD'. Other labels include '15', 'ON ES', '4% F', '.3', '.0302', '52', '100V', 'L', 'K', 'WH', 'BLK/RED', 'BLK/YEL', 'TIC UNDED CASE 4V(RED)', and 'G'.

**audio research**  
HIGH DEFINITION®

# Reference 6

Line Stage Preamplifier

Press Release

**THERE IS ONLY ONE REFERENCE®**

# Reference 6

## Introduction

Almost from its very beginning, Audio Research has had a reputation for designing and creating some of the finest preamplifiers ever produced. The new Reference 6 line stage preamplifier continues this tradition in the constant pursuit of High Definition music playback.

Founded in 1970 by William Z. Johnson, Audio Research continued the manufacture of high performance audio products utilizing vacuum tubes, which had fallen out of fashion at the time in favor of transistors. Though easier to implement and far less expensive than tubes, the sound quality of transistors at that time was simply unacceptable, and did not offer the detail or musicality which Bill Johnson was seeking to create. By 1973, the SP3 preamplifier had been hailed by both J. Gordon Holt of Stereophile, and Harry Pearson of The Absolute Sound, as the best preamplifier available on the market. The Reference 6 is the latest chapter of our story.



# Reference 6

## Concept



The Reference Series from Audio Research was first introduced in 1995 and has been the ultimate representation of performance, musicality and power. Beginning with the Reference 1, the Reference 6 now continues the tradition of using the most refined circuit designs in concert with the highest quality parts and components. Numerous elements – transformers, capacitors, wiring – are designs exclusive to Audio Research and the Reference 6. A completely new chassis has allowed not only a more beautiful aesthetic, but also provides more structural rigidity to assist in the dissipation of electrical and mechanical interferences. Six premium 6H30 tubes are now used in the audio circuit (increased from four tubes in the Reference 5SE) to provide an even quieter background and increased dynamic range. The tube-regulated power supply is also a new design for improved sonics. New circuit boards, circuit designs, and larger power transformer have been implemented to provide robustness and serviceability. A new volume control with finer step gradation and higher performance completes the system.



# Reference 6

## Creation



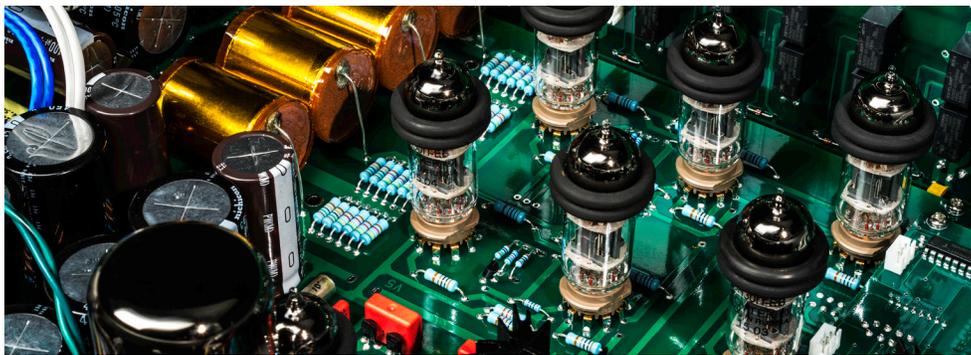
The Reference 6 is not simply a market-driven product, but rather, a solution to a need which arose after the creation of the Reference SE Series amplifiers. According to Warren Gehl, who is responsible for sonic development of all Audio Research products, the new series of Reference amplifiers offer a level of musical and dynamic capability only made apparent when using the flagship, two-chassis Reference 10 preamplifier. Both preamplifiers of the Reference Series need the ability to provide the full benefit of this new sonic landscape. Increasing the tube count to six in the analog section, and advancements in the power supply improved both macro- and microdynamics and lowered distortion. The Reference 6 also offers better bass control, relaxed purity and more dimensionality. Further improvements include a more grainless presentation, greater transparency, better speed, and more continuity across the musical spectrum. Quite simply, the Reference 6 improves upon its predecessor in every way for a more palpable and immediate musical performance.



# Reference 6

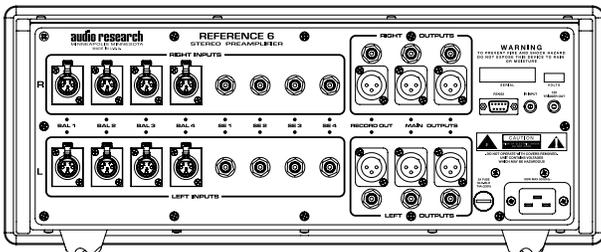
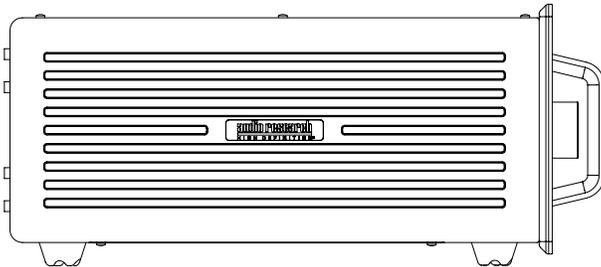
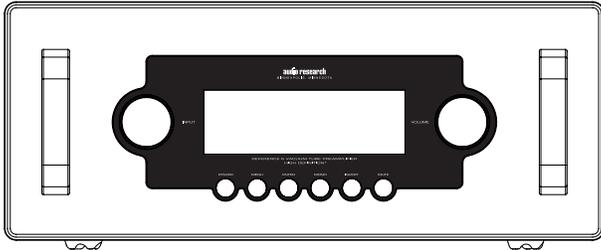
## Description

The Reference 6 line stage preamplifier is housed in a single chassis paneled in custom-machined aluminum. The vacuum tube audio stage utilizes six 6H30 vacuum tubes (three per channel), and one 6H30 and a 6550WE provide regulation in the power supply. The large, vacuum fluorescent display on the front panel shows all functions and volume. Two rotary encoders provide input selection and volume control, and a row of five buttons control power, mute, invert, mono and menu controls. Menu functions include: input labeling, display brightness, processor input setup and tube hour reset. Four balanced and four single-ended inputs provide system connectivity. There are two main outputs providing both balanced and single-ended, as well as a record out. RS-232, IR input, and 12V trigger allow for additional control options. The Reference 6 ships with a full-function metal remote.



# Reference 6

## Specifications (preliminary)



**Frequency Response:** +0-3dB, 0.5Hz to 200kHz at rated output (Balanced, 200k ohms load).

**Distortion:** Less than .01% at 2V RMS BAL output.

**Gain:** Main output: 12dB Balanced output, 6dB SE output. Record out: 0dB (Processor input: 0dB SE output).

**Input Impedance:** 120K ohms Balanced, 60K ohms SE. Inputs 4 balanced, 4 single-ended. Assignable processor passthrough.

**Output Impedance:** 600 ohms Balanced, 300 ohms SE Main (2). 20K ohms minimum load and 2000pF maximum capacitance. Outputs (3): 2 main, 1 record out (XLR and RCA connectors).

**Output Polarity:** Non-inverting.

**Maximum Input:** 20V RMS BAL, 10V RMS SE.

**Rated Outputs:** 2V RMS (1V RMS SE) into 200K ohm balanced load (maximum balanced output capability is 30V RMS at less than 0.5% THD at 1kHz).

**Crosstalk:** -80dB or better at 1kHz and 10 kHz.

**Controls:** Rotary encoders: Volume (103 steps), Select Input. Push Buttons: Power, Proc, Menu, Enter, Mono, Invert, Mute.

**Power Supplies:** Electronically regulated low and high voltage supplies. Automatic 45 sec. warm-up/brown-out mute. Line regulation better than .01%.

**Noise:** 1.7uV RMS residual IHF weighted balanced equivalent input noise with volume at 1 (109dB below 2V RMS output.)

**Tube Complement:** (6)-6H30P dual triodes, plus (1 each) 6550C and 6H30P in power supply.

**Power Requirements:** 100-135VAC 60Hz (200-270VAC 50/60Hz) 130 watts. Standby: 2 watts.

### Dimensions:

Width	19" (48 cm)
Height	7.8" (19.8 cm)
Depth	16.5" (41.9 cm)

Handles extend 1.6" (4 cm) forward of the front panel.

**Weight:** 36.5 lbs. (16.6 kg) Net; 53 lbs. (24 kg) Shipping.



# Reference 6

## World Première

Festival SON et IMAGE Paris  
October 17-18, 2015

## Availability

Shipping begins November 2015

## Finishes

Available in natural  
anodized aluminum with  
clear acrylic cover

## Price

\$14,000 US

