

# *Bellari*

## RP563

### Stereo Tube Sonic Exciter



#### SPECIFICATIONS

Frequency Response:	20 Hz - 40 kHz
Input Impedance:	10K balanced - 10K unbalanced
THD + Noise:	<0.7% typical
Noise Floor:	-78 dB
Subwoofer Slope:	-18 dB/Octave
Max. Subwoofer Gain:	+20 dB
2: Analog VU Meters:	(Ref. +4 dBm)
Input/Output jacks:	XLR balanced
1/4":	unbalanced
Dimensions:	1.75" X 6" X 19" (89mm X 162mm X 482mm)
Weight:	6 lbs. (2.72 Kg)
Power:	100-240VAC 25VA

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ROLLS CORPORATION  
SALT LAKE CITY, UTAH  
8/13

Quick Start Guide

## FRONT PANEL DESCRIPTION

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**SUB FREQUENCY:** Sets the highest frequency allowed out of the Sub Woofer Outputs. This frequency is adjustable between 35Hz and 200 Hz.

**SUB LEVEL:** Adjusts the output level of the Sub Woofer Outputs. The level is adjustable between - infinity (off) and a gain of + 20 dB.

**SUB CLIP LED:** When lit, this LED indicates the signal level is 3 dB below clipping and there may be distortion in the Sub Woofer circuits.

**ACTIVE SWITCH:** Engages and disengages the RP563. When out, the unit is bypassed.

**BOTTOM:** Controls the low frequency cut/boost (flat or no cut/boost is at about 12 o'clock). There is a 0 to 1/2 turn spectrum spread from midrange to bass with this control as well as amplitude control.

**DEFINITION:** Controls the amount of sonic clarity and sound spread. Setting it on 0 is flat response and minimal spread, on 10 is maximum spread and definition.

**LEFT/RIGHT LEVEL METERS:** Indicates the output level of each channel.

**PWR LED:** Indicates that the RP563 is connected to an AC outlet, and the power is turned on.

**POWER SWITCH:** Controls the primary power to the RP563.

## REAR PANEL DESCRIPTION

**DC INPUT JACK:** For connection to the supplied power adapter.

**RIGHT/LEFT XLR OUTPUTS:** Balanced outputs for connection a power amplifier or other equipment with XLR line level capabilities.

**RIGHT/LEFT 1/4" OUTPUTS:** Unbalanced line level outputs.

**LEFT/RIGHT 1/4" INPUTS:** Unbalanced inputs for connection (normally) to the last device in the signal chain before the power amplifier.

**LEFT/RIGHT XLR INPUTS:** Balanced line level inputs.

**SUB OUTPUT:** 1/4" unbalanced output for connection to the Sub Woofer power amplifier.

## OPERATION

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### STEREO CONNECTION

We recommend you put the RP563 last in the signal chain. If you have an EQ or other processor after your mixer's main outputs, use the RP563 between it and your power amplifier.

If you are connecting the RP563 into a home stereo system, insert the Sonic Exciter between your signal sources such as tuners, DVD players, CD players etc. and the power amplifier.

**CAUTION: TO AVOID POSSIBLE SPEAKER OR AMPLIFIER DAMAGE, ALWAYS TURN ON THE RP563 AND OTHER PERIPHERAL EQUIPMENT BEFORE TURNING ON THE POWER AMPLIFIERS. ALSO TURN OFF THE POWER AMPLIFIERS FIRST, BEFORE TURNING OFF THE RP563 AND OTHER EQUIPMENT.**

The RP563 Stereo Tube Sonic Exciter is a two channel frequency compensation device designed to add life and animation to your sound.

### WHAT IS A SONIC EXCITER, AND WHY USE TUBES?

The frequency range that a human ear can detect is roughly 20Hz to 20kHz. However, the frequency response a normal speaker can effectively reproduce is much, less. Additionally, speakers add distortion and phase changes that make the sound different from that of the original material.

A sonic exciter restores clarity and presence to the processed signal by correcting phase changes and harmonic structure differences. In other words, it puts the components of the sound back where they belong. Using a vacuum tube circuit in this configuration not only restores the clarity lost in previous processes, it adds warmth and a slightly compressed attribute to the program material. This addition to the sonic exciter process makes the final sound even larger, cleaner, and clearer. All of this is done by the use of all-pass filtering, frequency compensated gain adjustment, and frequency compensated domain delay. What this means is the elements of sound are fanned out like a deck of cards, making each sound more audible and distinct, reducing the need for higher volumes and radical equalizer adjustment. Because of the unique tube design, the RP563 also has the benefit of natural tube compression. This makes a more realistic and pleasing sound. With the all class "A" design, there is enhanced second harmonic content, making the RP563 smooth and musical.