

# "LEBEN" PHONO PREAMPLIFIER

## MODEL: RS-30EQ



### INTRODUCTION

There are two major types of RIAA phono equalization systems, one is NFB(Negative Feedback) type and the other is CR type.

A representative preamplifier equipped with NFB type equalizer is the MARANTZ Model: 7. This is a 3-step amplification NF equalizer based on 12AX7, which applies NFB from the 3rd stage cathode to the 1st stage cathode.(so-called "K-K type").

The advantage of the NFB type is that it does not require a high gain level and is not very sensitive to tube quality.

However, the impedance of NFB at high frequency range becomes very low and results in a negative effect to make the sound more hard and dry.

The NFB type is usually used as it is an easier way to attain a good signal-to-noise ratio.

As for the CR type, a masterpiece preamplifier equipped with the CR type equalizer is the vintage Harman-Kardon Model: "Citation IV".

CR type equalization requires a high gain level and is much more sensitive to tube quality.

Since tube quality will be directly amplified, the finest possible quality tubes are needed for this type of equalizer.

Moreover, proper implementation is more difficult.

However, the CR type is much more superior sonically to the NFB type, being very stable in the high frequency range and is able to reproduce a very high quality sound especially when high quality tubes are used.

## Leben Model: RS-30EQ

CS-30EQ is equipped with the CR type equalizer based on GE(General Electric/USA) 12AT7 authorized by J.A.N.(Joint Army & Navy) standard of the US Army, and can reproduce a very high quality and clear sound without adding any NFB.

Not one to compromise sound using the NFB type, one of the solutions we adapted to completely protect the sensitive CR type equalizer was to originally develop for RS-30EQ a large power transformer of three times the necessary power, and we have also selected the finest available high-end audio components to keep the deflection of the RIAA curve below  $\pm 0.3\%$ .

### OTHER FEATURES

Natural wood Side-Panels(Canadian-Ash)

<b>CS-30EQ SPECIFICATIONS</b>	
Tube compliment	: 2 x JAN 12AT7A (G. E.) : 1 x 6X5GT (G. E.)
Gain	: 23.5dB
RIAA Curve	: Less than $\pm 0.2$ dB.
INPUT IMPEDANCE	: 47K $\Omega$ (Normal)
Max. Input	: 400mV (2KHz.)
Output voltage	: 175mV
Power Consumption	: 17W
Weight	: 6.0kg
Dimensions	: 340(W) x 140(H) x 240(D) mm
Attachment	: Power Cord

