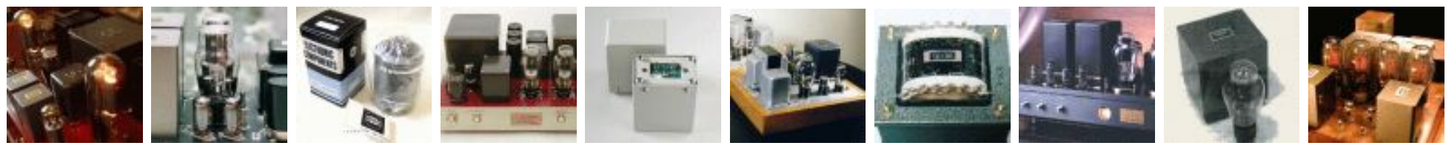


passive RIAA LCR unit

Because the Tango EQ-600P LCR unit is not available anymore, we had to find another solution. We asked one of the best transformer manufacturers to design and make a replacement. To our surprise they told us they already had such a design and used it in their private preamplifier, but never put it into production because of the high production cost. Yes, the best never comes cheap.

Passive RIAA module, 600R impedance.

No longer available

Hand crafted using a high nickel (permalloy) alloy for the transformer, polypropylene capacitors and high precision (0,5%) resistors for a very accurate RIAA correction within 0.3dB
It was never so easy to build a near perfect RIAA correction.

Dimensions: (wxdxh) 64 x 43 x 72 mm. Weight: 500gr.

Inductive RIAA deemphasis Networks

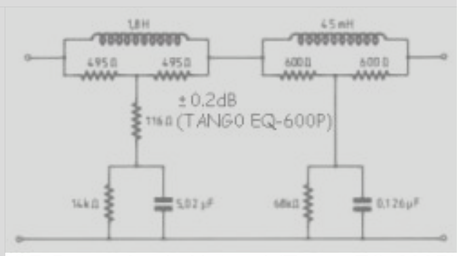
noticeable worldwide interest in the using of Inductive RIAA networks has always been driven by the desire to obtain the best possible sound quality.

The RIAA emphasis (at the recording) , a process necessary to reduce the amplitude of lower frequency and amplify the higher ones for mechanical reasons (primary to efficiently write audio information on vinyl surface), was historically obtained by a passive LCR network. Clearly the corresponding RIAA deemphasis can be obtained at the best (i.e. with the maximum accuracy) only by a similar dual network

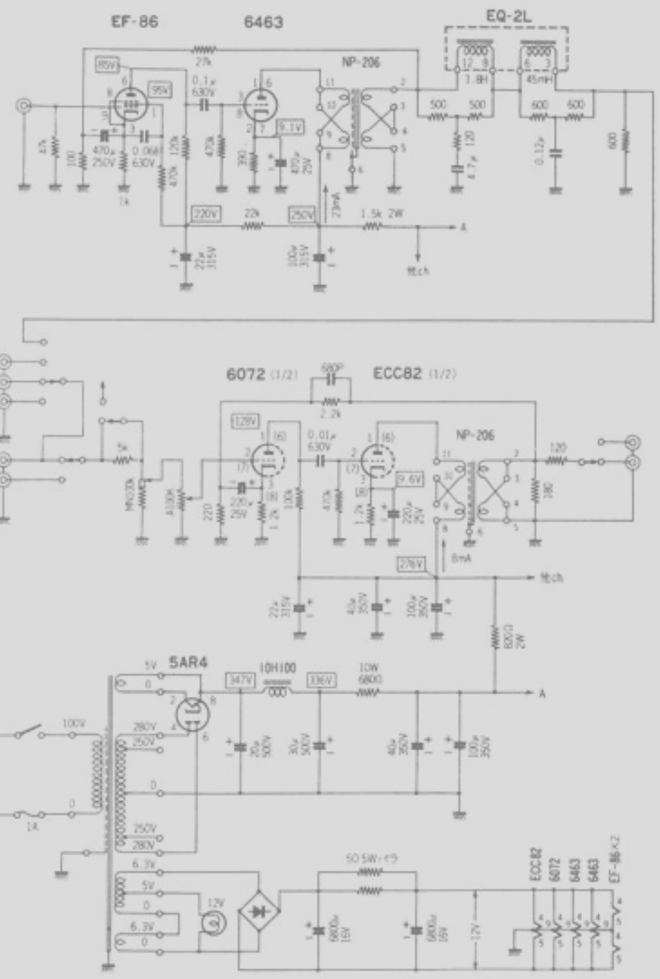
In a theoretical way, any transfer function can be synthesized by an LCR network (passive solution) or by an active RC network (where this network is placed in the feedback loop of an operational, or similar, amplifier).

Audiophile community seems to refuse the active solution since the RC network is placed around a feedback loop (no matter if the active device is a vacuum tube or a solid state amplifier) and for good reasons, since there is an historical, anecdotal and technical evidence that feedback amplifiers alter sound quality: for this reason the only acceptable way to build a good phono preamp is by the use of a passive stage (split or not around gain stages).

For economic reasons passive RIAA deemphasis networks are rarely in the form of a LCR quadripole (see schematic of the Tango EQ-600P) which is the only way to obtain the maximum accuracy, but appear (like 99% of all phono stages) in the lighter and less accurate form of a RC network.



LCR Deemphasis Network(Tango EQ-600P)



Japanese Phono with Inductive RIAA, (from Radio Gijutsu, M. Yoshio Nasu, 1984)