

SIMPLE LOUDNESS CONTROL

By GEORGE D. CURTIS

THE increasing popularity of both stereo and mono phonographs has indicated the need for an inexpensive loudness control. This is easily obtained with ceramic and crystal cartridges by taking advantage of the fact that their bass response increases with load.

A high-resistance pot, R_1 , is used at the input, connected as shown in the diagram, to increase input impedance as loudness is reduced. Most present cartridges are equalized for the RIAA curve when loaded with from .5 to 2 megohms. The value of R_1 is chosen to be much greater than the manufacturer's recommended load and will commonly be 2 to 10 megohms.

R_2 is chosen to provide a flat response load at high loudness levels and will average 1 to 1.5 megohms. R_2 can also be

made variable so that it can be used as a level-set control.

A capacitor adds treble boost called for in the Fletcher-Munson curves. It is typically $47 \mu\text{f.}$, but is often omitted since treble boost is considered unnecessary by many.

Values the author used with a Sonotone 3TS cartridge are shown in the diagram. [30]

