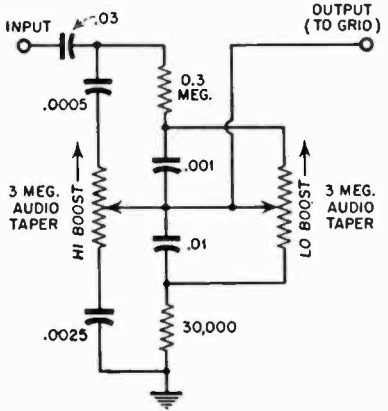
Low-Loss Tone Control

A simple tone control for both low- and high-frequencies which has a total loss of only 20 db.

For some years the writer has been using the tone control system described in the preceding article, but with a modification which may be of interest because of a reduced loss. Both high- and low-frequency control circuits can be combined into one network with a mid-frequency loss of only 20 db, instead of the total loss of 40 db when the networks are used separately as described in the article. As a result, only one triode amplifier is needed to compensate for the loss introduced by the tone control.



The network is shown at left and the values shown give substantially the same response curves as shown in the article. The input should be connected to a source impedance not higher than about 20,000 ohms, to prevent loss at high frequencies when in the high boost position, and the output should work directly into a grid, as pointed out in the editorial note.

James J. Faran, Jr.,
Acoustics Research Lab.,
Harvard University.