Subject: Re: A pentode on the input circuit...
Posted by metasonix on Sat, 11 Dec 2004 08:23:26 GMT
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Pentodes work very well as inputs or as drivers.However, the TYPE of pentode used is a critical issue. If you look back at vintage audio circuits, you'll find that prior to 1945 in professional mixing consoles and such, the 6J7 was most commonplace. 6SJ7s were also seen postwar. These types were chosen for low distortion, not necessarily low noise. After 1950, 12AX7 types were becoming more popular. One thing that didn't help the pentode was a minor noise source, that screen-grid tubes have and triodes don't--called partition noise. In well-made tubes this only increases the noise figure by a few dB. However, that was enough to make engineers militate against pentodes. (Plus, and more important, 12AX7s were cheaper to use than any pentode by the late 50s. You can get more raw voltage gain from a 12AX7 than any pentode.)Yet even after 12AX7s, pentodes were still being seen in audio gear occasionally. The Marantz 8B amp used 6AU6s on its input stages (they do happen to be low distortion). The H-K Citation II used 12BY7 video pentodes, also very linear. Both classic amps, worth a lot of dough today. The EF86, one of the few small pentodes intended especially for audio preamps, was very popular in European hi-fi after 1956. Most often it's seen as an input gain stage or in phono preamps. It had low partition noise, low distortion, and a built-in shield.But it was always more costly than other tubes, so its use faded out.This is all becoming academic anyway, as I don't know of any small pentodes still being made. Not enough demand. Svetlana's EF86 was the last.Does that help at all?