## Click-free switching for audio filters

It's often required in mixing consoles and other audio equipment to be able to insert a correction network for comparison purposes without producing transients or changes of level. The diagram shows how this can be achieved with a familiar Baxandall network, though of course the idea is applicable to other filters.

With  $S_1$  open and  $S_2$  closed, the circuit functions normally, but if the switch positions are simultaneously reversed, the response remains flat, regard-

less of the positions of the pots. The centre-frequency gain remains unchanged since the network is symmetrical and, furthermore, phase shift is unaltered.

The main value of this type of switching, however, is that with the controls in the flat position, there is no transient interruption of the signal, and with no d.c. in the network, no clicks either.

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