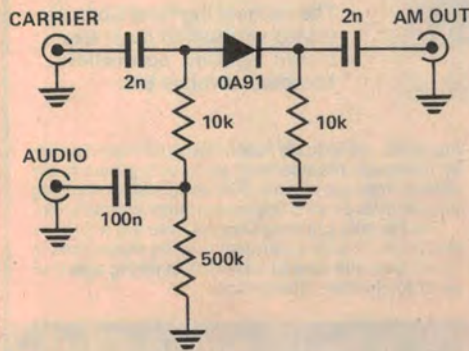


All-round modulator



A very handy device around any hobbyists workshop or serviceman's bench is a simple modulator. For aligning IF amplifiers, receiver front ends etc — especially with only basic test instruments, it's a must.

Reader, G.J. Armitage of Melbourne Vic, sent this circuit in. A common signal diode is used as a 'mixer'. You'll need to drive the audio input with more signal than the RF input to get good modulation depth.

The circuit will work across a very wide frequency range, from very low frequencies to well into the VHF region. The diode can be any germanium signal diode, such as OA90,

OA91, OA95, OA202 etc. The RF drive will need to be around several hundred millivolts.

A silicon signal diode, or a hot-carrier, diode may be used, but you'll need around half a volt of RF drive.

Constructed in a small shielded container, with coax input and output connectors (RCA connectors are good), prevents radiation of signals and a switched attenuator may be connected on the output.

The circuit may also be used as a product detector. BFO injection should be fed in the 'Audio' input and the resultant audio taken from the output (add a 'pi' RF filter using two 1n capacitors and a 1nH RF choke).