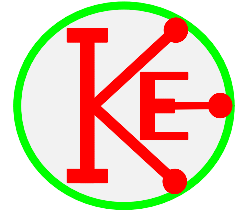


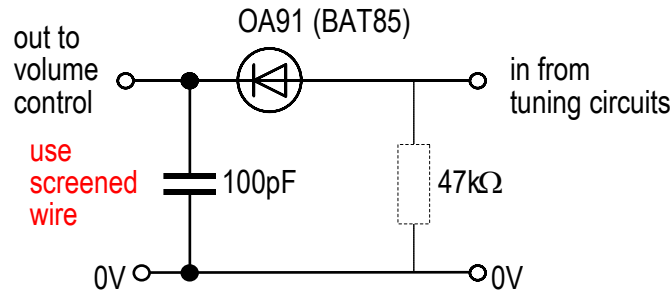
Demodulator subsystem.



Components

- OA91 germanium diode
(BAT85 schottky diode)
- 100pF capacitor
- 47kΩ resistor

The demodulator circuit is shown below.



How it works.

The OA91 diode removes the negative going part of the radio signal and the 100pF capacitor removes the radio frequency part of the signal, leaving just the audio (information) signal.

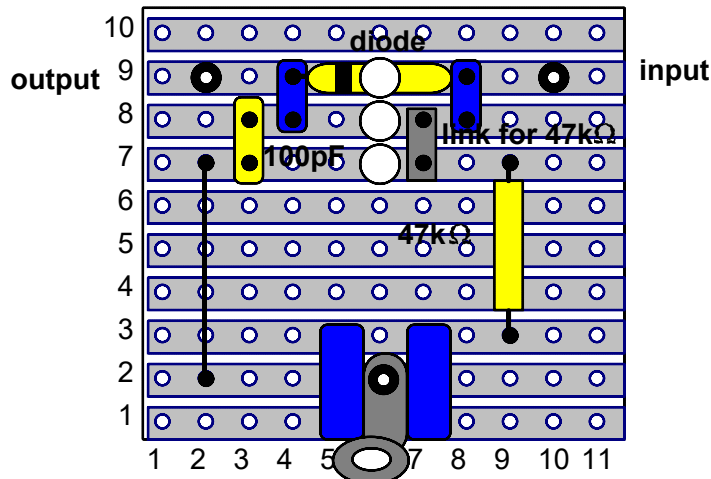
The radio signals received are very weak and it is essential that as much of the radio signal is used to recover the information signal. A germanium diode is used in the circuit as it needs a much smaller voltage to conduct than a normal silicon signal diode (i.e. 1N4148). However, they have been discontinued by many manufacturers and are becoming difficult to obtain.

A suitable replacement is a BAT85 Schottky diode which works nearly as well as a germanium diode.

The 47kΩ resistor is not needed initially, but space is left on the circuit board so that it can be added at a later stage.

Construction

With so few components in this subsystem, they were mounted on a piece of stripboard 10 strips by 11 holes with a single solder tag used to fix it to the baseboard.



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The solder tag is bent at a right angle and soldered onto the double sided solder pinat the rear of the strip board.

The 47k Ω resistor can be joined into the circuit with a wire link, when it is needed. In the original, a jumper link from an old PC was used to connect the 47k Ω resistor when it was needed.

