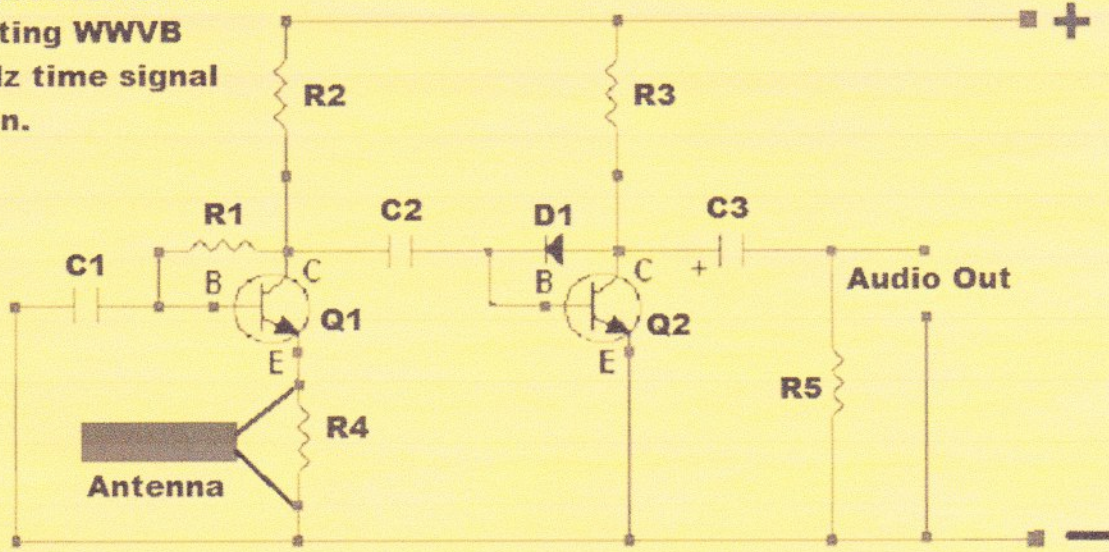


60 KHz receiver for detecting WWVB 60 KHz time signal station.



This receiver will detect time signal station WWVB on 60 KHz. WWVB continuously broadcasts digital time signals on a 60 KHz carrier, with a broadcast range over 2500 miles. This receiver uses one of our LF antennas, part number 7SR-60KHz. Power the receiver with a 9-volt battery. The antenna is directional so aim the flat side (not the ends) towards the station located in the state of Colorado, USA. Best reception is at night after ionosphere sunset. WWVB's carrier is switched ON and OFF (1's and 0's) with long and short periods, so it actually sounds like slow Morse code. To best hear the WWVB signal you can input a low level 61 KHz carrier which will produce a nice 1 KHz audio tone for each time code pulse.

PARTS LIST:

Q1, Q2: 2N3904 NPN Transistors.

D1: 1N4148 or 1N914 silicon diode. (Do not use a germanium type).

R1: 1 Meg Ohm Resistor.

R2, R5: 10 K-ohms Resistor.

R3: 100 K-ohms Resistor.

R4: 2 K-ohms Resistor. Antenna connects across this resistor. Red antenna wire goes to "E" of Q1.

C1: 0.1 uF. Polyester Film Capacitor.

C2: 0.01 uF. Polyester Film Capacitor.

C3: 1 uF. Metal Film Capacitor.

Audio Output: Connect to an audio amplifier having 1 millivolt input sensitivity (microphone level signal). Radio Shack mini Audio Amp CAT NO: 277-1008C works very well with this receiver, for example.