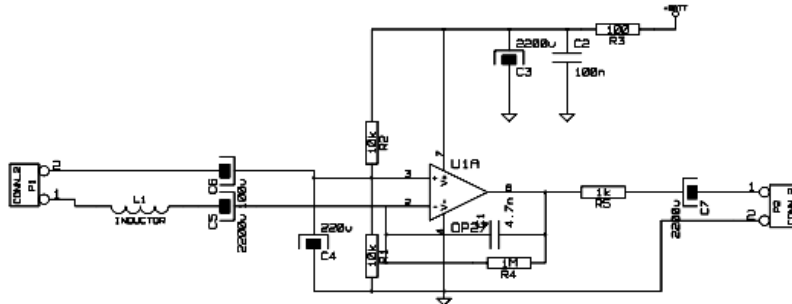
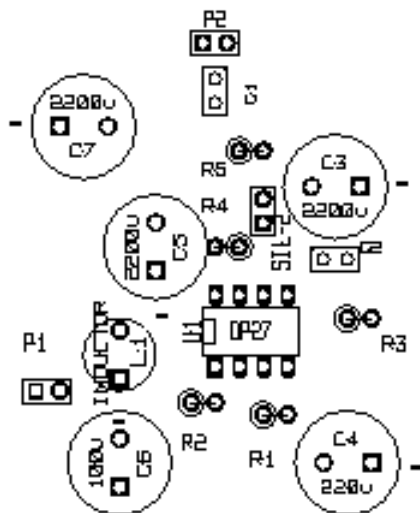


VLF receiver/close range schnuffler/sniffer kit

Schematic:



Parts placement:



CAPACITORS:

C1	4.7nF
C2	100nF
C3	2200uF
C4	220uF
C5	2200uF
C6	100uF
C7	2200uF

INDUCTOR:

L1	INDUCTOR
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CONNECTORS:

P1	CONN_2
P2	CONN_2

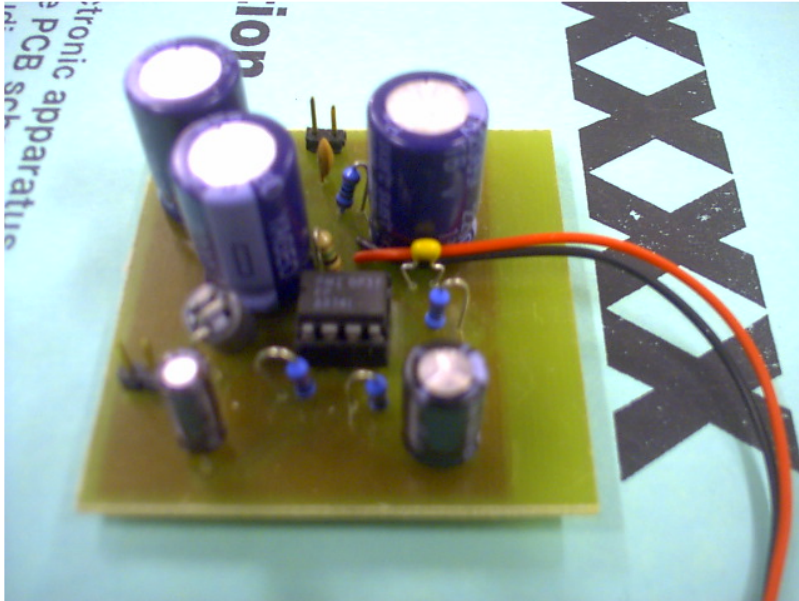
RESISTORS:

R1	10k
R2	10k
R3	100
R4	1M
R5	1k

IC:

U1	OP27
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Image:



Description:

The circuit detects and amplifies low frequency electromagnetic emissions with some low pass filtering for audio frequency output. The main component is a standard op-amp OP27/OP07. The circuit can be used with a range of coils at the input.

Construction notes:

Clean the board first with pure alcohol. Place the 8 pin IC socket first and solder this, before populating the board working through the holes and soldering on the copper side. Orient yourself with the notch of the OP07/27 facing left as in the image. The inductor is identified as the ferrite capsule with two wires wound through. Assemble the largest components (the electrolytic capacitors) last. Pay attention to the polarity (-) of these capacitors. The power connection is marked in the middle of the board with + (Plus) below the - (GND) connection. Solder a jumper wire on the back of the board between pin 7 of the OP07/27 and the free side of R2. On the bottom left is a connector to connect the detecting coil (small black rubber-coated part). Other coils of different values and design can be connected. There is no polarity. The top middle connector is for audio output with the left pin to GND and right pin to signal.

References:

circuit diagram: <http://1010.co.uk/images/vlf.pdf>
[based after a design at: <http://www.vlf.it/minimal/minimal.htm>]
PCB design:: <http://1010.co.uk/images/vlf-Copper.pdf>
Components: <http://1010.co.uk/images/vlf-comp.pdf>
<http://anart.no/projects/maxwell-city/>
<http://scrying.org>