

The device is a version of the portable headphone amplifier C-MOY Pocket Amp[1]. This amplifier is necessary when using high-impedance headphones with playback equipment without a built-in amplifier (mp3 players, linear output of a PC sound card), but can also be used with regular headphones.

The low-noise operational amplifier **U2** acts as an active element. The circuit has an op amp of the TL072 series, but it can be replaced with any similar one, for example, NE5532, OPA2134, OPA2132, etc.

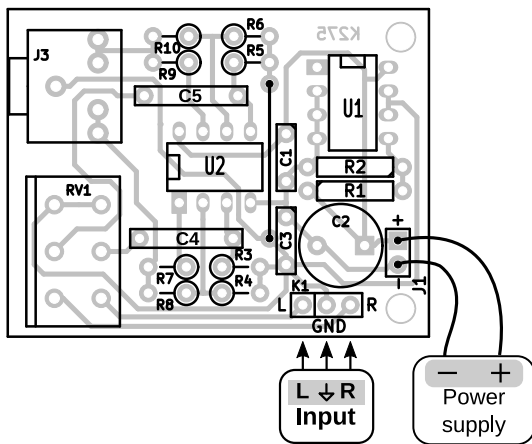
The circuit is powered by one or two batteries (or accumulators) 6F22 "crown". By using its own power supply, you can increase the operating time of the portable playback equipment.

The operational amplifier **U1** is used to create a circuit for creating a virtual ground to convert a single-polar power supply into a dual-polar supply, which is necessary for the operation of the amplifying microcircuit **U2**. It is possible to power the circuit from a single-polar network source when the device is used stationary[2].

**Notes**

1. <http://tangentsoft.net/audio/cmoy-tutorial/> [eng]
2. The mains power supply must be linear and have a minimum pulsation level so as not to create noise during playback.
3. When assembling, first of all, it is worth soldering the wire jumper, which is located between **U2** and **C1**, **C3** (see the layout diagram of the components).

**Layout of elements**



**List of components**

R1,R2,R8,R10	10 kOhm
R3,R5	100 kOhm
R4,R6	910 Ohm ... 1.5 kOhm
R7,R9	47 Ohm
RV1	20-50 kOhm, 6 pin, straight, (WH148)
C1,C3	0.1-0.22 µF ceramic
C2	220-470 µF 35 V
C4,C5	0.1-0.22 µF CL21(CBB21)
U1	LM358, LM2904
U2	TL072, NE5532
J3	3.5 mm 5 pin audio jack

PCB275 — 1 pc.  
 Knob for potentiometer - 1 pc.  
 \*All resistors, unless otherwise stated, are 0.25W

**K275**

**Headphone amplifier**

**Self-assembly kit**  
 designed for self-assembly of amateur radio devices and mastering the skills of installation

**The kit includes:**

- printed circuit board;
- radio components according to the list;
- manual.

Store under normal climatic conditions

**Specifications:**

Power supply ..... 6F22;  
 Network source ..... 9 - 24 B;  
 Current consumption ..... < 10mA;

**Electric scheme**

