This kit assembles a microphone amplifier with an output tailored for stereo headphones. Through the kit, it becomes possible to amplify any sound in the environment, from voices to common noises of objects and/or music, allowing you to listen to them amplified through the headphone output. Amplification can be adjusted using the RP1 trimmer to achieve the desired volume. The kit does not feature frequency cuts, so all sounds will be amplified.

The circuit primarily consists of a microphone that captures sound, which is then amplified through a transistor circuit and further amplified to appropriate levels for listening through standard headphones. The device must be powered by a CR2032 button cell battery. Power can be supplied/interrupted at any time through the S1 switch, enabling on-demand usage and extending battery life.

**List of Components**

- R1: 5,1 KΩ
- R2-R7: 120 KΩ
- R3-R4: 1,5 KΩ
- R5: 100 Ω
- R6: 680 Ω
- C1: 100 nF ceramic
- C2-C3: 4,7 μF electrolytic
- C4: 100 μF electrolytic
- Q1, Q2: S9014
- Q3: S9012
- RP1: 10 KΩ
- P1: Female Jack socket for Printed Circuit Board
- S1: Slide Switch
- MIC: Microphone
- BT1: Battery Holder for CR2032
To proceed with the soldering of components, start with those of lower profile and then continue with those of higher profile. Begin with the resistors, paying attention to their values, then proceed to solder the 3.5mm headphone jack connector. Continue by soldering the transistors, followed by the capacitors and trimmer. The microphone and battery holder should be soldered last.

After completing the assembly, carefully verify that everything is soldered correctly, paying particular attention to avoiding short circuits during the soldering process.

Power the board by inserting the CR2032 button cell battery, ensuring correct polarity. As the circuit is not protected against reverse polarity, improper connection may damage the kit and the battery.

Insert the headphones, turn on the switch, and adjust the potentiometer to control amplification until reaching the desired volume.

To all residents in the European Union: Important environmental information regarding this product

This symbol on the product or packaging indicates that disposal of the product in the environment at the end of its lifecycle is prohibited as it may be harmful to the environment. Do not dispose of the product (or batteries, if used) as general household waste; it should be disposed of by a specialized recycling company. For more detailed information on recycling this product, please contact your local municipal office, waste disposal service, or the store where the purchase was made.

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Via Adige, 11 - 21013 Gallarate (VA) Tel. 0331-799775
Web site: www.futuranet.it
Technical support: supporto@futuranet.it