

MINI POWER AMP 1+1W. STEREO
CODE 673 **LEVEL 1**

This circuit is a small amplifier. It is easy using, building and installation. It is suitable for radio, video, computer etc.

Technical specifications:

- power supply : 3-12VDC.
- consumption : 500mA max. @ 9VDC. (using a loudspeaker 8Ω 1Wx2)
- output power : 1+1W.max. stereo
- adjust. level sound by trimmer potentiometer.
- S/N ratio : 70dB (A weighted)
- sensitivity (1kHz/500mW) : 120mV_{eff}
- PCB dimensions : 2.16 x 1.36 inches.

How to works:

This circuit shows in figure 2, both side is the same component. When have sound signal to "IN" point, this signal is into the volume control VR1 and pass capacitor C1, which C1 blocks any DC voltage that may be present on the signal. VR1 is used to adjust the input signal to pin 7 of IC1 (amplifier). This amplifier can supply 1W into the 8Ω loudspeaker. After amplifier, this AC signal will be changed to audio signal by loudspeaker.

PCB assembly:

Shown in Figure 3 is the assembled PCB. Starting with the lowest height components first, taking care not to short any tracks or touch the edge connector with solder. Some tracks run under components, and care should be taken not to short out these tracks. If the pins will not enter the holes with ease, use a small drill to slightly enlarge the opening. All components with axial leads should be carefully bent to fit the position on the PCB and then soldered into place. Make sure that the electrolytic capacitors are inserted the correct way around. Some components are particularly sensitive to heat (ie: Transistors, IC's, diodes etc.) extra care must be taken to only apply the iron for as little time as possible, using a pair of pliers to grip the leads will help

conduct heat away. Trim components leads with wire cutters to prevent excess lengths causing a short circuit. Now check that you really did mount them all the right way round!

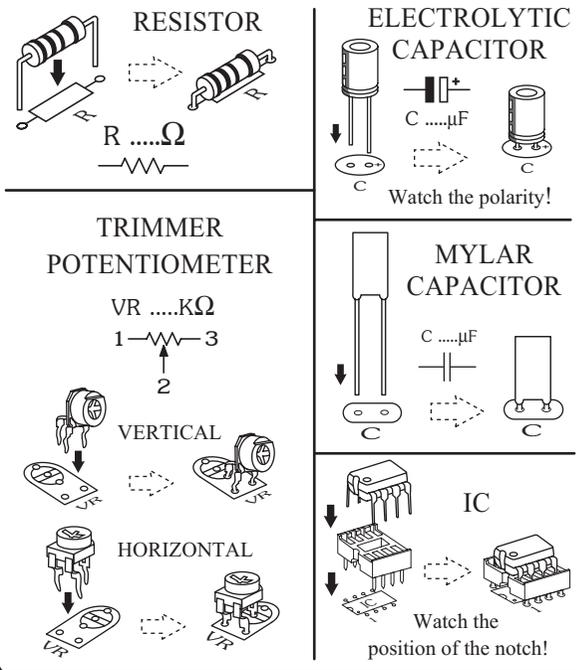
Testing:

Before apply the power supply to the circuit, and connect all component follow figure 3 and adjust volume control VR1 and VR2 max. counterclockwise. Then apply the power supply 3 to 12 VDC to circuit. Increase VR1 and VR2 clockwise slowly, you will hear the sound from both loudspeaker.

Application

This circuit can use with earphone but apply the power supply 3 volts only.

Figure 1. Installing the components



Troubleshooting:

The most problem like the fault soldering. Check all the soldering joint suspicious. If you discover the short track or the short soldering joint, re-solder at that point and check other the soldering joint. Check the position of all component on the PCB. See that there are no components missing or inserted in the wrong places. Make sure that all the polarised components have been soldered the right way round.

Figure 2. The mini power amp
1+1W. stereo circuit

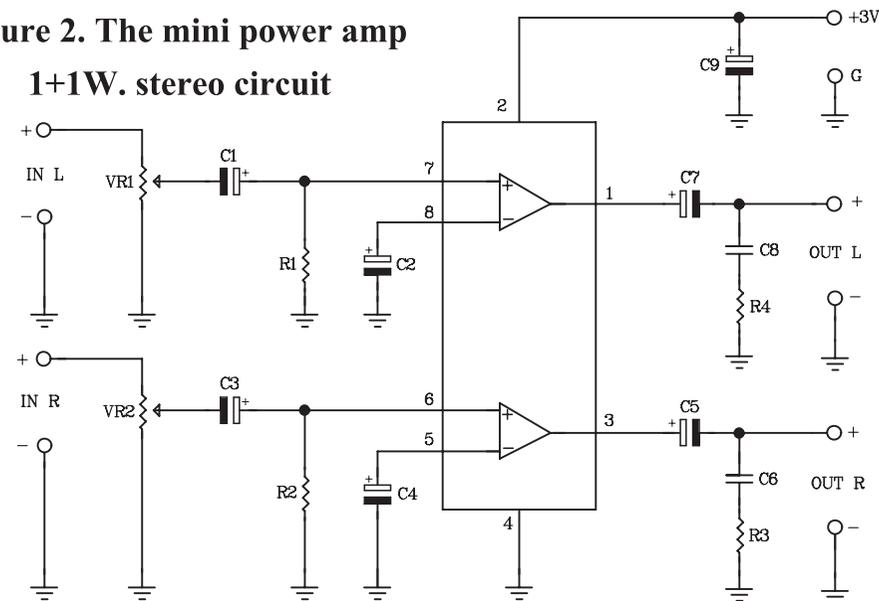
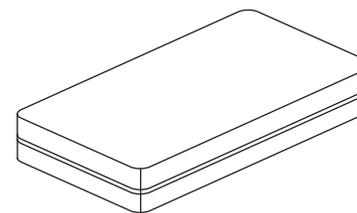
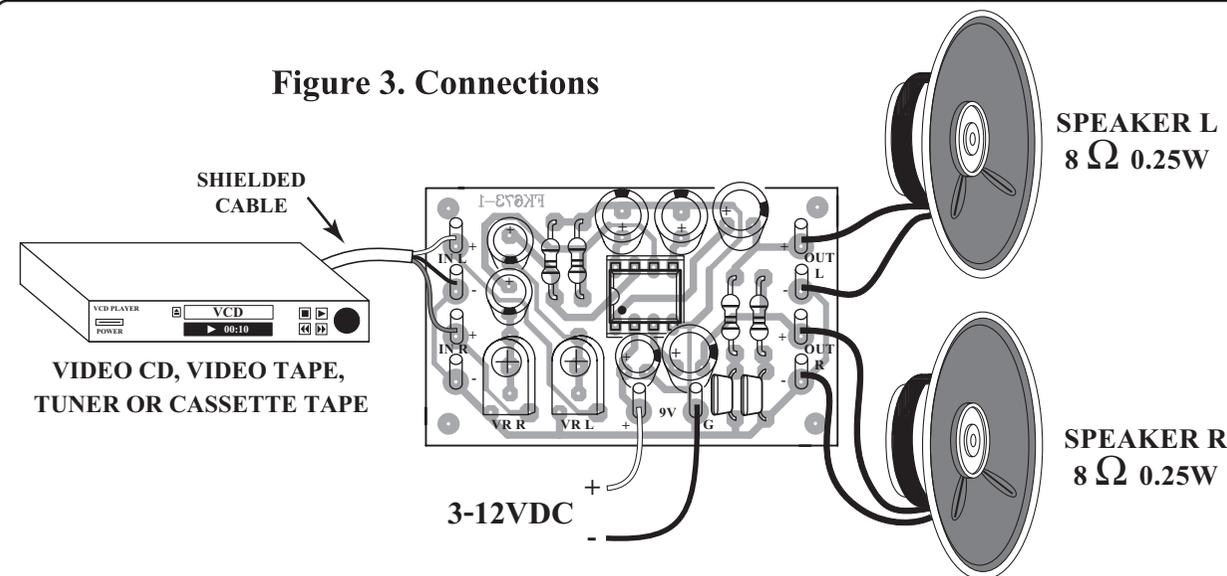


Figure 3. Connections



NOTE:

FUTURE BOX FB17 is suitable for this kit.

NEW KIT SET

CODE FK	DESCRIPTION	POWER
167	FIREFLY LIGHT (NIGHT ACTIVATE)	3VDC.
275	THREE TRAIN SOUNDS (IC DIGITAL)	3VDC.
276	OWL VOICE (IC DIGITAL)	3VDC.
326	DUAL STATION INTERCOM&DOOR BELL (WITH 2 SPEAKER)	6-12VDC.
436	UHF REMOTE CONTROL 1 CH.	TX. 9VDC. RX. 12VDC.
673	MINI POWER AMP 1+1W. STEREO	3-12VDC.