



**FUTURE KIT**  
HIGH QUALITY ELECTRONIC KITS

**POWER AMP. IC 8+8 WATT (STEREO)**

CODE 605

LEVEL 3

This power amplifier 8+8 watt (stereo) circuit is designed to have only 1 IC to for base the system development IC is specially selected to be used for amplifying both left and right channels. This particular IC has many qualification including protective circuits inside IC and is popularly used for car radio for many brands. When it is applied as stereo amplifier, it is suitable for listening during free time for those who has limited budget.

**Specification:**

- supply voltage : 12 VDC / more than 1A.
- music power output : 8W / 4Ω
- signal/noise ratio : 80 dBA.
- input sensitivity : 150mV / 200kΩ
- frequency response : 20Hz to 20kHz (-3dB)
- Gain : 30dB. max.
- total harmonic distortion (THD) : 0.1% @ 1W, 4Ω
- overload and short-circuit protected
- dimension : 2.36 x 2.90 inches.

**How it works:**

This circuit has very easy function because IC itself is multifunction. Sound signal from "IN L" position will pass C1 to pin 1 of IC, C2 is connected to ground for high frequency bypassing. At the same, sound signal from "IN R" position will pass C3 to pin 5 of IC, C4 is connected to ground for high frequency bypassing. Amplified signal at L will pass pin 10 of IC to C5, and speaker at pin 10 of IC by having R1 and C6 connected to ground for high frequency oscillated prevention. Pin 9 of IC will onnect "+12V" position and pin 6 of IC will be ground.

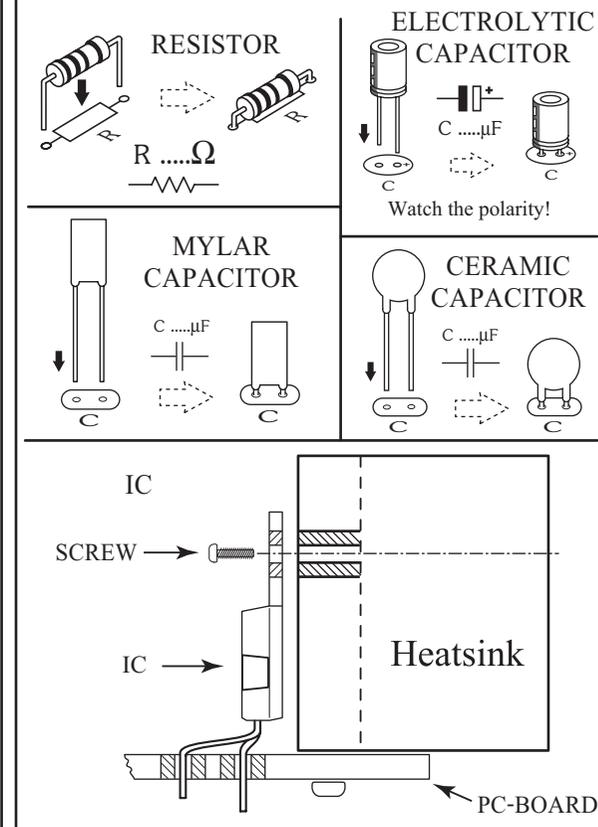
**PCB assembly:**

Shown in Figure 3 is the assembled PCB. Starting with the lowest height components first. 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. Now check that you really did mount them all the right way round!

**Testing:**

Apply the supply to the completed circuit. Connect the audio signal and speakers, and increase the volume at the audio source slowly. You should hear the music. If it is not clear, means input signal is too strong. Transformer should not less than 1A. Use only shielded cable for input and output connections.

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.

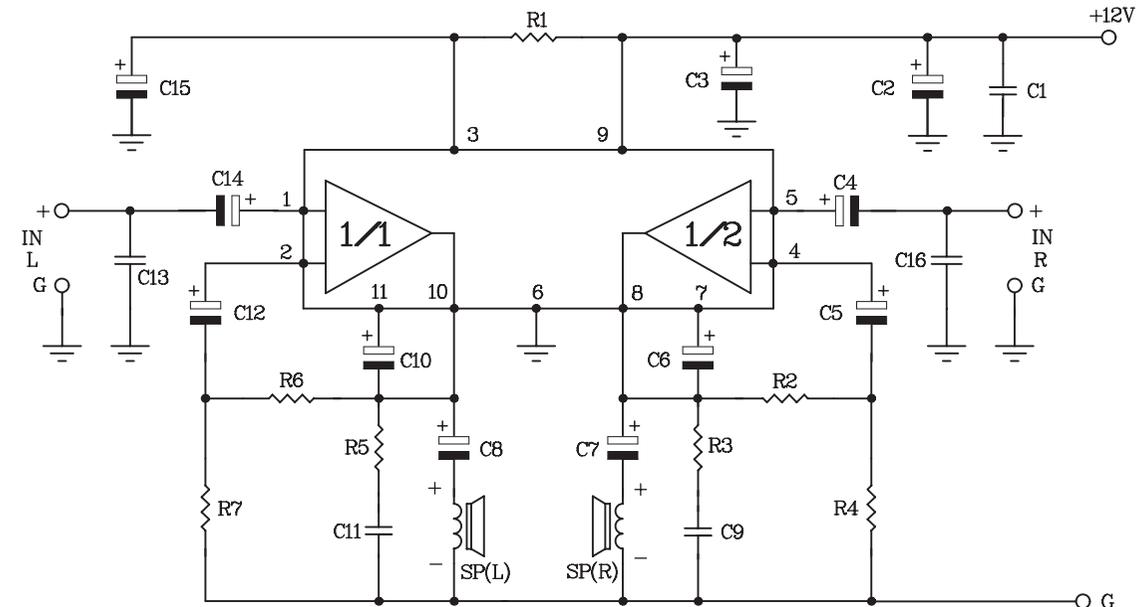


Figure 2. The power amp. IC 8+8 watt (stereo) circuit

Figure 3. Connections

