

BASS BOOSTER STEREO
CODE 643

LEVEL 2

This bass booster stereo increasing circuit. It is amplifies low frequency (bass sound) while twitter is blocked from output.

Specification:

- supply voltage : 12 VDC
- consumption : 20mA. max.
- input impedance : 47Kohm
- frequency range : 150Hz to 250Hz
- dimension : 2.77 x 2.85 inches.

How it works:

Following instruction can be applied for both L and R. Using L as example. Input signal will transfer through TR1 to amplified and transferred to R,C network circuit. Low frequency will transfer through R7 while high frequency will transfer through C3 to R4. As R4 has high value, so than high frequency can pass lesser. Both frequencies will be combined at pin 3 of IC1. IC1 will amplify signal to pin 1 sent pass C7 to OUT. R side at pin 6 will connects through R11 to control amplify ratio. For L side INPUT will be transferred to pin 6 and sent out at pin 7 through C to coupling to L OUT. Both L and R will be amplified by IC1.

PCB assembly:

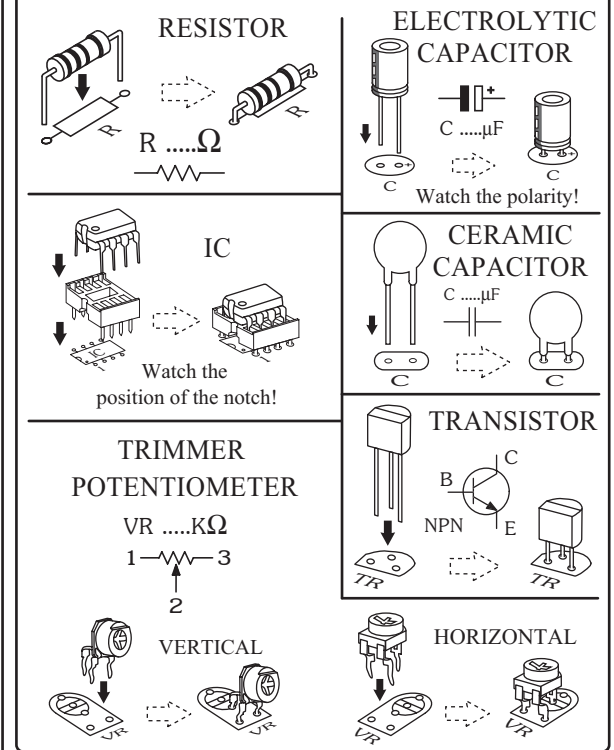
Shown in Figure 3 is the assembled PCB. Starting with the lowest height components first, taking care not to short any tracks or touch the edge connector with solder. Some tracks run under components, and care should be taken not to short out these tracks. If the pins will not enter the holes with ease, 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:

Connecting INPUT with tape or tuner. Connecting OUT with amplifier. If amplifier has tone control, connect OUT prior to tone control. Giving 12 volts supply to the circuit, positive pole at +12V, negative pole at G. Adjusting trimmer potentiometer, there should be base sound of music, only low twitter presented. Adjusting VR both L and R to increase or decrease bass sound. If there is hum sound means unsmooth current. It requires power supply 6-9-12V 300mA code FK801.

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.

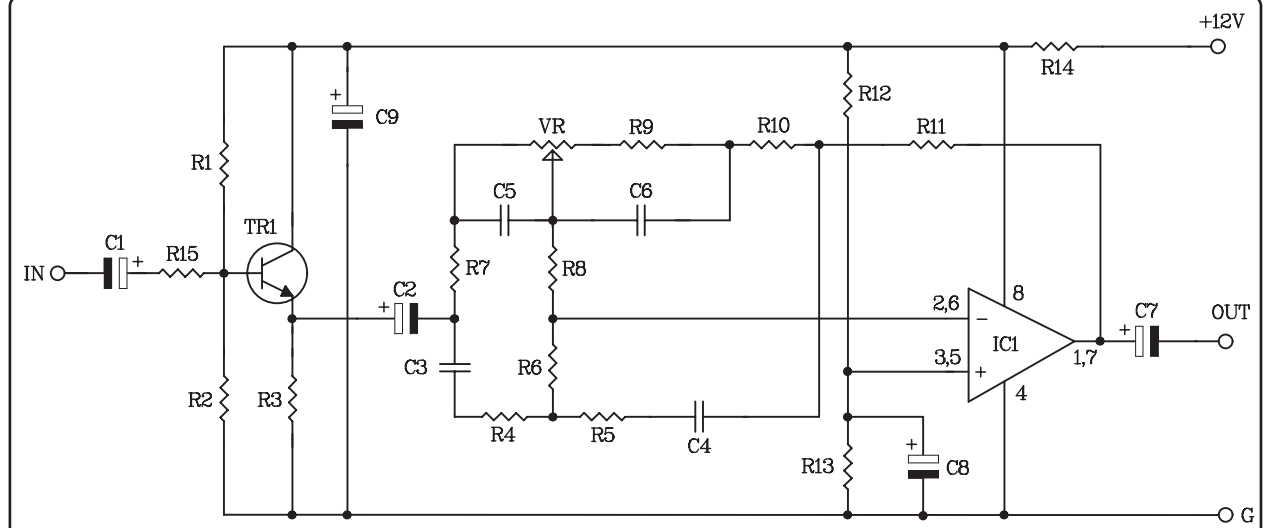


Figure 2. The bass booster stereo circuit

Figure 3. Connections

