

SUPER TONE CONTROL (MONO)
CODE 627 **LEVEL 3**

This super tone control (mono) circuit is a multi-functional tone controller that can be applied with normal power amplifier. It is suitable for connecting with OCL amplifier only.

Specification:

- Supply voltage : 15-0-(-15) VDC
- consumption : 5mA.max.
- Dimension : 3.39 x 1.23 inches.

How it works:

Input signal will pass VR1 which acts as volume control for increases or decreases signal. Signal will be transferred to R1, C1 toward TR1 and TR2. Both TR1 and TR2 act as buffer, signal will be sent through C2 toward sound adjuster. Bass is controlled by VR2 and treble is controlled by VR3. Signal will be sent to pin 2 and then pin 6 to sent out at OUTPUT by passing R13 and C7. Signal at pin 6 will be returned to boost-cut controlling by passing R11.

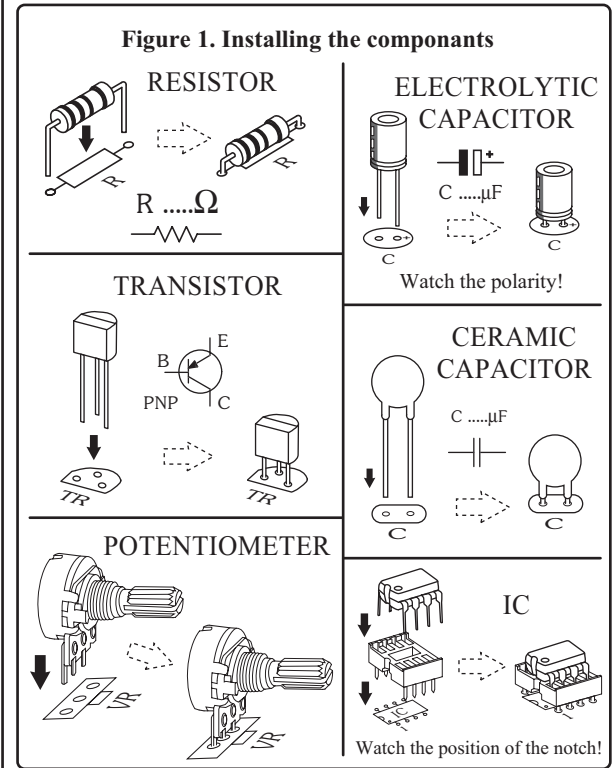
PCB assembly:

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:

Giving the supply to the completed circuit. Connecting signal with IN. OUT will take the signal to amplifier input. Testing by increases and decreases bass and treble. If there is "hummm..." sound means unsmooth voltage.



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.

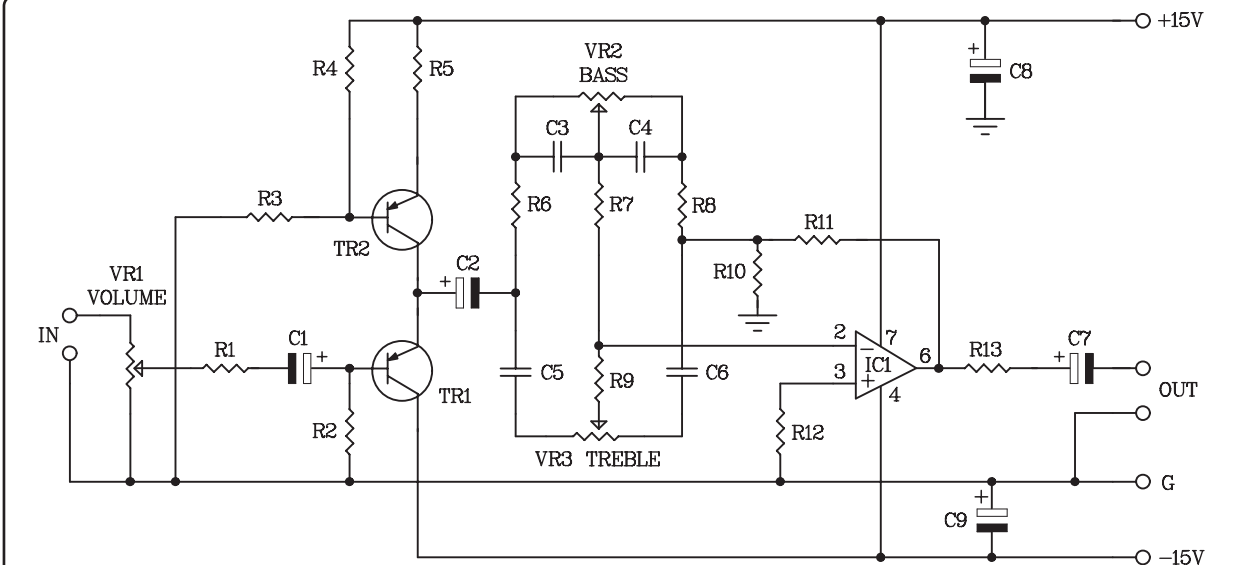


Figure 2. The super tone control (mono) circuit

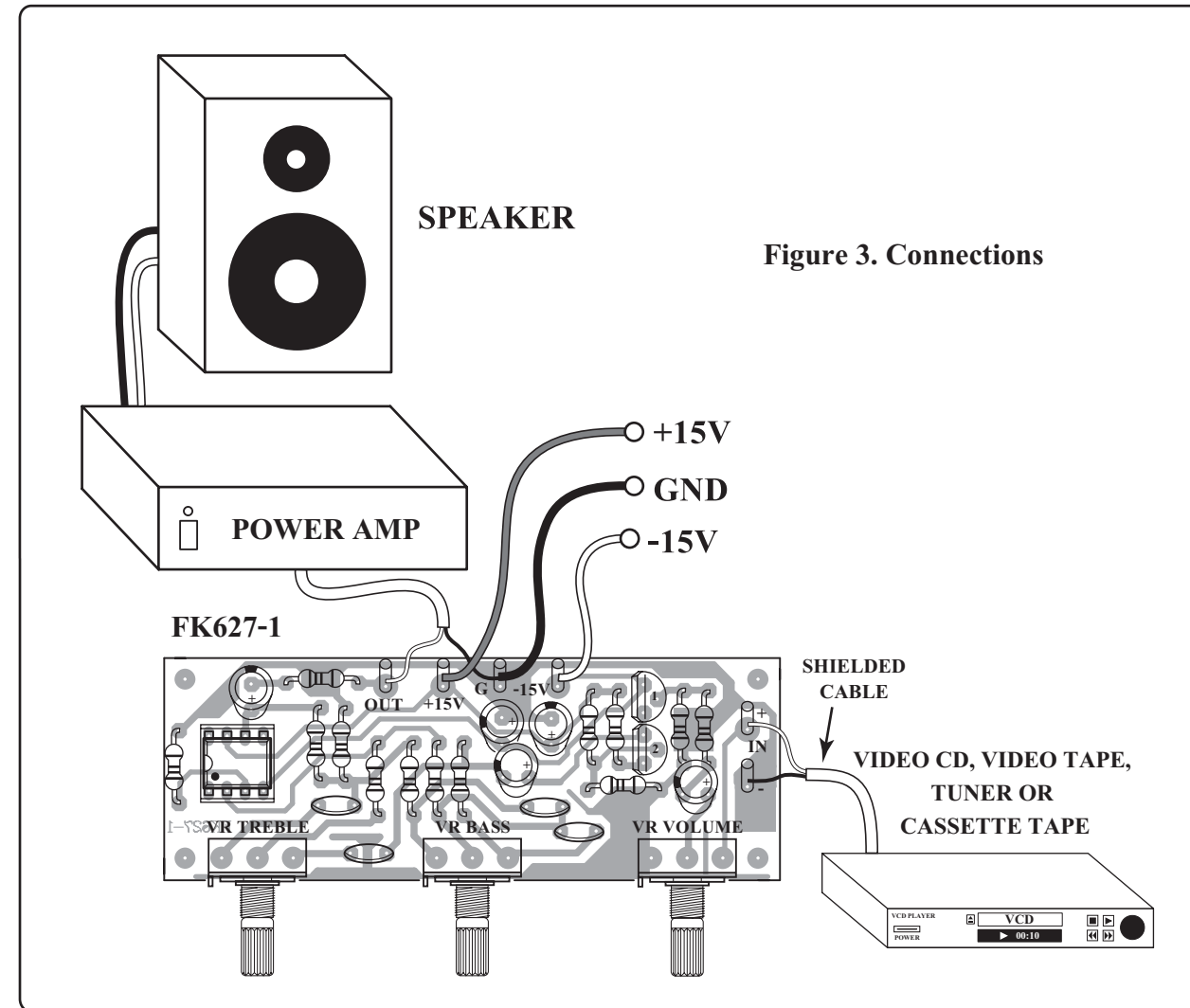


Figure 3. Connections