

# How To Make A Tweeter Volume L-Pad Network Using Resistors

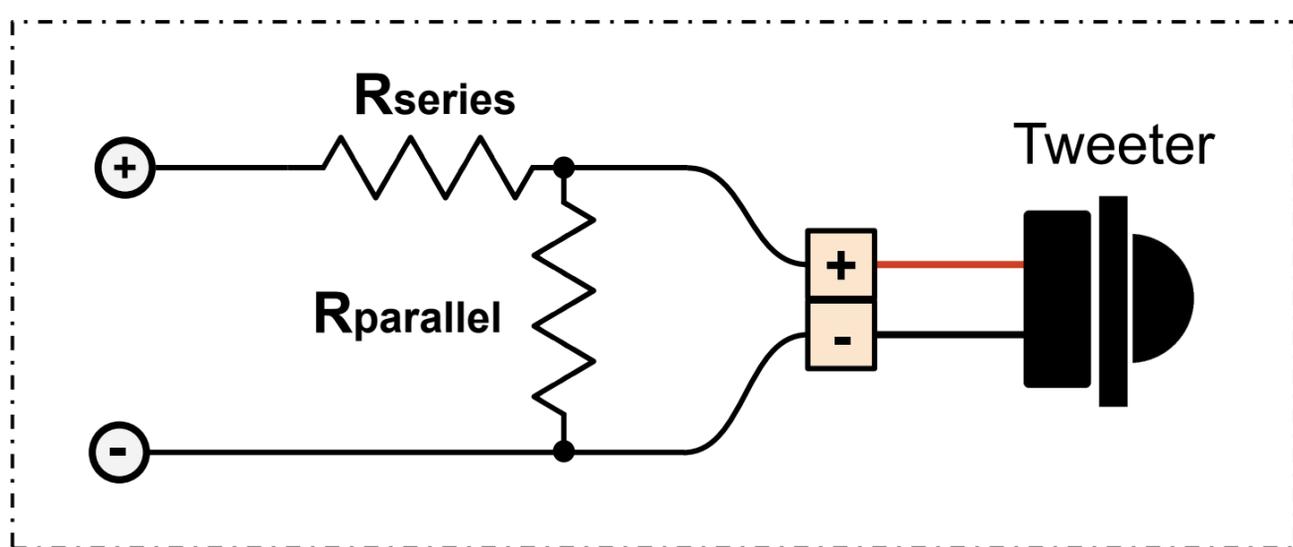
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Tweeter volume can be controlled by an adjustable or fixed resistor network. For many speaker systems, a fixed volume reduction (in dB) is fine and can save money, too.

## Building your own resistor volume L-pad network

**1** Decide the amount of tweeter volume you need reduced, in decibels. **If you're not sure, 6dB is a good choice.** For especially "bright" tweeters 9dB or even 12dB is good.

Use this diagram as a guide for choosing & connecting the parts:



**2** Find the resistor values you need from the tweeter resistor chart below using the dB volume drop needed & your tweeter's Ohm rating.

### TWEETER RESISTOR CHART

Attenuation (dB)	Tweeter Ohms	Rseries ( $\Omega$ )	Rparallel ( $\Omega$ )
-3	4	1.17	9.70
-6	4	2.00	4.02
-9	4	2.58	2.20
-12	4	3.00	1.34
-15	4	3.29	0.87
-3	8	2.34	19.39
-6	8	3.99	8.04
-9	8	5.16	4.40
-12	8	5.99	2.68
-15	8	6.58	1.73

Purchase the higher-power resistors you need, one or more for each Ohms value, that will be *close to* the values from the chart. I recommend 15W or higher resistors as a minimum.

**Don't worry, you don't need to get the exact values shown, but close to the same if possible.**

Example: 2.58 $\Omega$  can use 2.5 $\Omega$ ; 1.17 $\Omega$  can use 1.1 $\Omega$  or 1.2 $\Omega$ , and so on.

As resistors are sold in standard values, it's helpful to mix them as needed to make it easier to find what you need.

Example: 1.2 $\Omega$  = 0.6 $\Omega$  + 0.6 $\Omega$  in series or 1 $\Omega$  + 0.2 $\Omega$  in series.

**3** Connect the series and parallel resistors by using crimp connectors, solder, or good quality terminals to ensure a reliable connection.

Connect to the tweeter and crossover or amplifier with speaker wire. (NOTE: When using crossovers, connect the L-pad between the tweeter and the crossover)

Insulate exposed resistor leads to avoid short circuits. To keep it more compact, you can put resistors beside each other by making a "U" shape with them. Tape, glue, or zip tie together to hold.

