CIRCUIT DESCRIPTION

Each speaker is electrically isolated from the others. Therefore, this circuit description will cover each speaker as an individual circuit with a common input. Refer to the Schematic diagram while you read the Circuit Description.

WOOFER

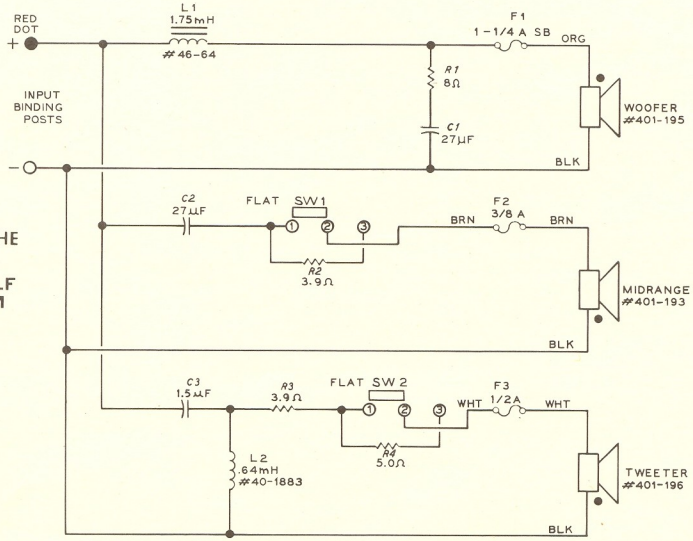
Inductor L1 passes the frequencies below 750 Hz to the woofer and attenuates the frequencies above 750 Hz at the rate of 6 dB/octave. Because the voice coil of the woofer is inductive, capacitor C1 and resistor R1 are needed to maintain a true 8-ohm load for inductor L1. Fuse F1 protects the woofer speaker.

MIDRANGE

Capacitor C2 rolls off frequencies below 750 Hz at a rate of 6 dB/octave and passes frequencies above 750 Hz. The speaker is allowed to roll off above 4000 Hz with no electrical crossover. Switch SW1 and R2 are used for series attenuation in the midrange frequency area. Fuse F2 protects the midrange speaker.

TWEETER

Capacitor C3 and inductor L2 form a high-pass filter with a 12 dB/octave roll-off at 4000 Hz. Resistor R3 is a series attenuator that matches the level of the tweeter to the rest of the system. Switch SW2 and resistor R4 attenuate the tweeter 3 dB. Fuse F3 protects the tweeter speaker.



SCHEMATIC OF THE HEATHKIT® 3-WAY BOOKSHELF SPEAKER SYSTEM MODEL AS-1363