

tech-tips

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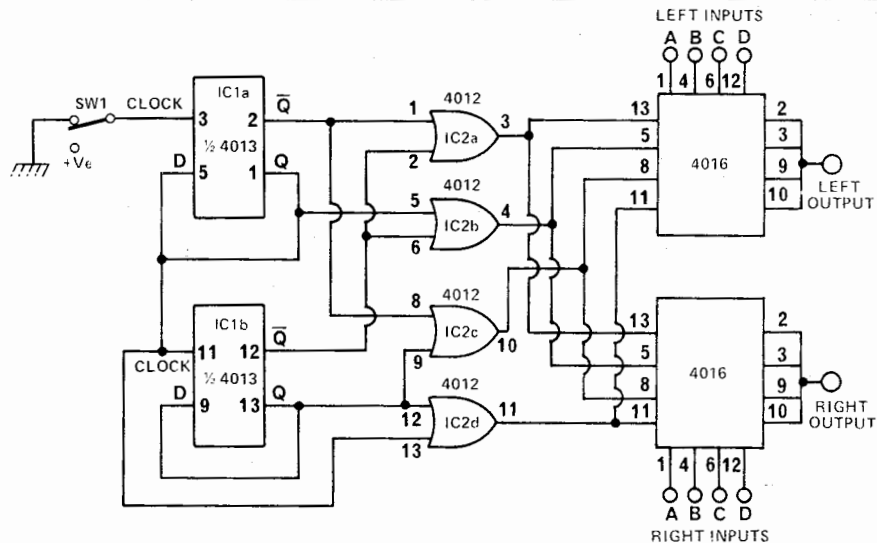
ETI is prepared to consider circuits or ideas submitted by readers for this page. All items used will be paid for. Drawings should be as clear as possible and the text should preferably be typed. Circuits must not be subject to copyright. Items for consideration should be sent to ETI TECH-TIPS, Electronics Today International, 25-27 Oxford St., London W1R 1RF.

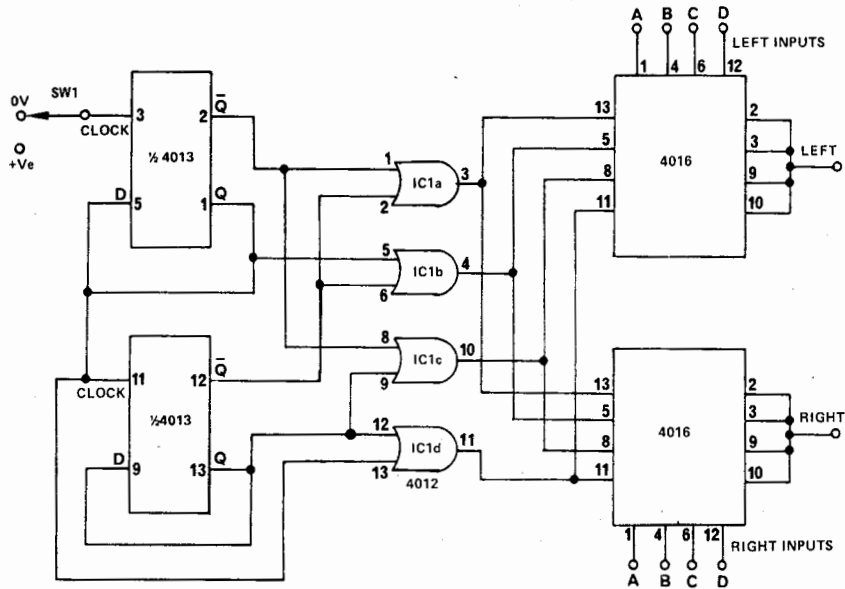
Stereo Input Selector

T. E. Huffinley

Four different inputs can be switched through by the continual pressing of SW1. IC1 is a dual 'D' type flip flop. The Q outputs are connected to the D inputs so that the clock inputs are divided by two. The two flip-flops are connected in series, giving a two stage binary counter.

IC2 is a quad OR gate. This is used to decode the four states of the counter. The outputs are used to control the quad switches of IC3 and IC4 (4016AE).





SINGLE POINT STEREO INPUT SELECTOR

Four different inputs can be switched through by the continual pressing of SW1.

IC1 is a dual 'D' type flip flop. The Q outputs are connected to the D inputs so that the clock inputs are divided by two. The two flip flops are connected in series, giving a two-stage binary counter.

IC2 is a quad AND gate. This is used to decode the four states of the counter. The outputs are used to control the quad switches at IC3 and IC4 (4016AE).

Tech Tips Special

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Digital Audio Switch

J.W. Harris

The circuit uses a CMOS 555 which oscillates at a frequency determined by the equation:

$$F = \frac{1.46}{C1(R1 + R2)}$$

The output from IC1 is decoded by IC2, a decade counter divider, which is activated by PB1. When PB1 is pressed, IC2 produces a positive voltage at one of its four outputs, each of which controls two of the eight switches in ICs 3 and 4, and an LED circuit.

When a switch control goes high, the corresponding audio input is selected and an LED lights to indicate which input has been selected.

Output 5 on IC2 is connected to RESET so when pin 10 of IC2 goes high, the decoder resets and the next pulse from IC1 selects input A.

The chosen values for R1, R2, and C1 produce a frequency of 4 Hz, so IC2 selects each audio input and then resets in 1 second. If PB1 is kept pressed, the input will change every quarter of a second.

ICs 1 and 2 are powered from +12 V, and ICs 3 and 4 are powered from +5 V and -5 V.

