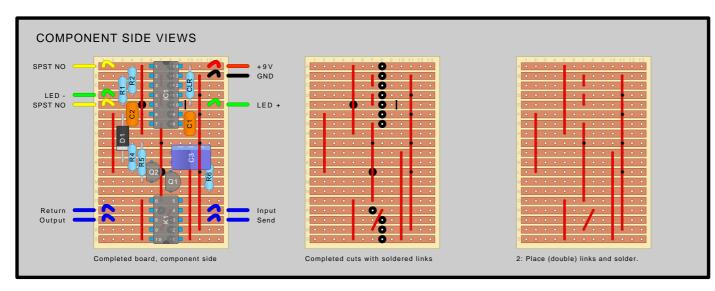
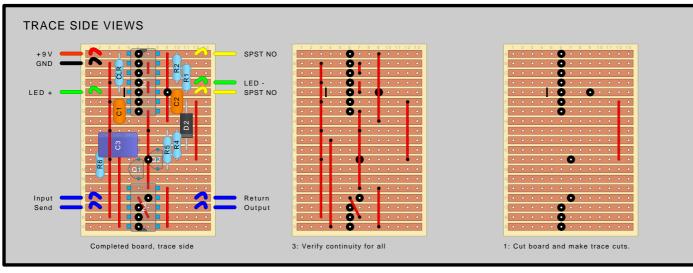
## 40106 Switching - Grounded input true bypass onboard relay with strain relief





Bill of materials:
R1: 1M C1: 4.7n
R2: 100k C2: 47n
R3: 6k8 C3: 100u / 25V
R4: 150k C1: 2N3904
R5: 15k C2: 2N3906
R6: 47R D1: 1N4148

IC1: CD40107 / HEF40106
K1: AL5WN-K, EA2-5SNJ or other
DIP single coil latching DPDT relay

AL5WN-K pinout: SET = 1+ / 10-RESET = 10+ / 1-COM = 3, 8 NC = 2, 9 (RESET STATE) NO = 4, 7 (RESET STATE)

40106 pinout: INPUT = 1, 3, 5, 9, 11, 13 OUTPUT = 2, 4, 6, 8, 10, 12 VDD = 14 VSS = 7

Special notes:

Notice cut between 40106 pin 10 and CLR

Vero size: 13 x 19 Number of cuts: 14 Number of links: 14

Revision notes:

Removed unnecessary cut at transistor

Changed position of links

Changed electrolytic cap mounting orientation

Rev. 1 prototype notes:

Due to IC1 not getting proper supply voltage, a 100 uF capacitor was soldered on the trace side. This capacitor may affect functionality - IT IS NOT ON THE SCHEMATIC OR LAYOUT!

100n and 200n caps were replaced with 4n7 and 47n for proper switching action