TL604CP vs. ADG419

Pin 5 of the DG419 must see +5VDC for the chip to work properly. This can be done with a voltage divider network connected to the +15VDC supply.

1. Connect a 10k resistor from the +15 VDC supply or pin 4 of the DG419
2. Connect a 5.1v zener in **series** with this 10k resistor to ground.
3. Connect the 10kresistor/zener **node** to pin 5 of the DG419.

TL604

FUNCTION TABLE

INPUT	ANALOG SWITCHES	
A	S1	S2
H	On (closed)	Off (open)
L	Off (open)	On (closed)

DG419

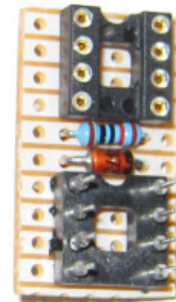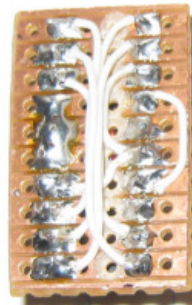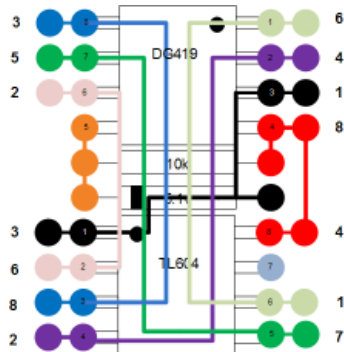| TRUTH TABLE DG419		
Logic	SW$_1$	SW$_2$
0	ON	OFF
1	OFF	ON

Logic "0" ≤ 0.8 V
Logic "1" ≥ 2.4 V

Note: Logic is inverted (see tables above) inputs S1 and S2.

TL604 pin #		DG419 pin #
1	Connects to:	3
2	Connects to:	6
3	Connects to:	8
4	Connects to:	2
5	Connects to:	7
6	Connects to:	1
7	Connects to:	N/A
8	Connects to:	4

Vero-board layout

TL604CP

DG419
Dual-In-Line and SOIC

D	1		8	S$_2$
S$_1$	2		7	V-
GND	3		6	IN
V+	4		5	V$_L$
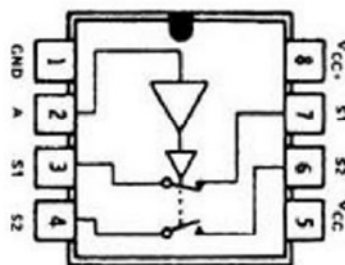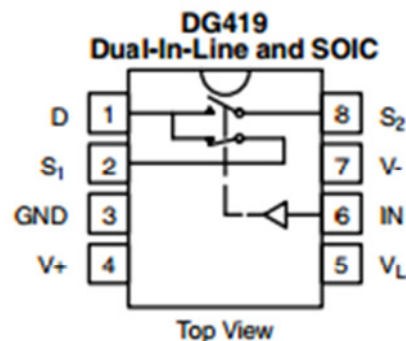
Top View

ADC419 pin function table

Table 4. Pin Function Description

Pin No.	Mnemonic	Description
1	D	Drain terminal. May be an input or an output.
2	S1	Source terminal. May be an input or an output.
3	GND	Ground (0 V) reference.
4	V_{DD}	Most positive power supply potential.
5	V_L	Logic power supply (5 V).
6	IN	Logic control input.
7	V_{SS}	Most negative power supply potential in dual-supply applications. In single-supply applications, it may be connected to GND.
8	S2	Source terminal. May be an input or an output.

This is the Altium PCB layout if anyone is interested, I have only come across a few vintage amps needing this mod so the vero-board version is my first choice.

Note that the ADG419, resistor and zener sit upside down on the board, the machined pin socket at the TL604 position has pins inserted and soldered to allow the module to mount into another socket where the original TL604 would be.

Regards,
Donian