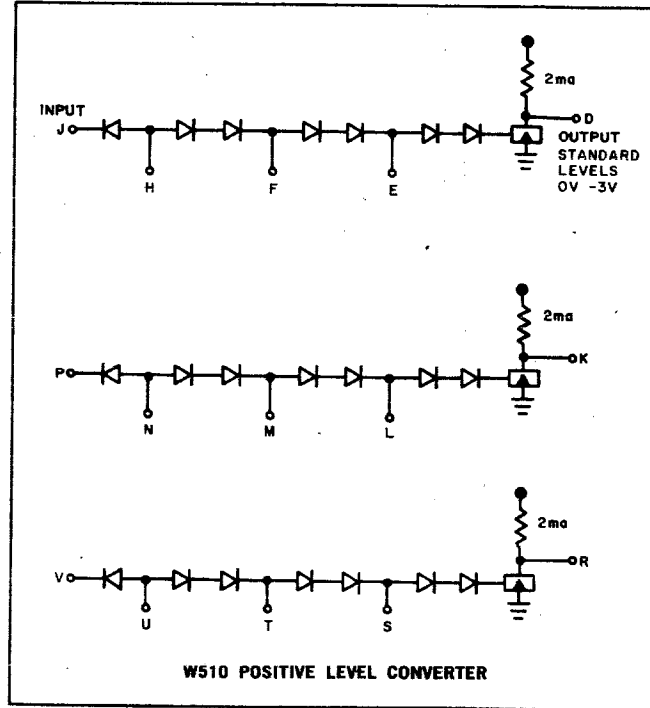


POSITIVE INPUT CONVERTER

TYPE W510

W
SERIES



The Type W510 Positive Level Converter contains three circuits that convert positive levels to DEC standard levels of ground and $-3v$. Each circuit consists of a grounded-emitter inverter with a diode string between its input and the base of the inverter. By shorting out sections of the diode string, the switching threshold may be varied to either $+2v$,

$+1v$, or $0v$ (see the following table). When the input is more positive than the switching threshold by $1v$, the inverter is cut off and the output is at $-3v$. When the input is more negative than the switching threshold by $1v$, the inverter is saturated and the output is at ground.

Threshold	Connections	Output = $-3v$	Output = $0v$
$+2v$	none	Input $\geq +3.0v$	Input $\leq +1.0v$
$+1v$	H & F, N & M, U & T	Input $\geq +2.0v$	Input $\leq 0.0v$
$0v$	H & E, N & L, U & S	Input $\geq +1.0v$	Input $\leq -1.0v$

In jumpering pins together to obtain the desired switching point, it is very desirable to use the shortest possible wire. Under no condition may anything else be tied to these pins.

Maximum frequency is 2 mc. Maximum delay for output fall is 100 nsec. Maximum delay for output rise is 60 nsec.

INPUTS: Voltage levels must not exceed $+25v$ or go below $-15v$. For inputs more negative than the

switching threshold by $1v$ or more, the input load is equivalent to 3900 ohms returned to $+10v$. For inputs which are more positive than the switching threshold by $+1.5v$ the input leakage is $100 \mu a$ or less.

OUTPUTS: The output is an inverter with a 2-ma clamped load. It can drive 18 ma at ground.

POWER: $+10v(A)/8.0ma$; $-15v(B)/17ma$.