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Parameter	CMOS							TTL		
	4000B	74HC	74HCT	74AC	74ACT	74AHC	74AHCT	74	74LS	74AS
V _{IH} (min)	3.5	3.5	2.0	3.5	2.0	3.85	2.0	2.0	2.0	2.0
V _{IL} (max)	1.5	1.0	0.8	1.5	0.8	1.65	0.8	0.8	0.8	0.8
V _{OH} (min)	4.95	4.9	4.9	4.9	4.9	4.4	3.15	2.4	2.7	2.7
V _{OL} (max)	0.05	0.1	0.1	0.1	0.1	0.44	0.1	0.4	0.5	0.5
V _{NH}	1.45	1.4	2.9	1.4	2.9	0.55	1.15	0.4	0.7	0.7
V _{NL}	1.45	0.9	0.7	1.4	0.7	1.21	0.7	0.4	0.3	0.3



















Current Spikes

- WHEN CMOS transistors switches between LOW and HIGH, current flows between VDD and ground through the partially ON p and n transistors, that is known as current spikes.
- Systems that use CMOS circuits require *decoupling capacitors* between VDD and ground at least one within an inch or so from each chip.