

# 7400 Series Logic Numbering Scheme

SN 74 HCT 04 B

## Manufacturer

DM: Fairchild &  
National Semi  
MC: Motorola

SN: Texas  
& others less  
common

## Temperature range

54xx Military; -55C to +125C  
64xx\* Industrial; -40c to +85C  
74xx Commercial; 0C to +70C  
\* very rarely seen

## Package

This is the package suffix. It is necessary to refer to the manufacturers datasheets as these codes vary between manufacturers.

## Device series (more widely used series)

Series	Description	Supply Voltage
<b>Bipolar series</b>		
7400	Standard TTL	5V ± 5%
74H	High speed	5V ± 5%
74L	Low power	5V ± 5%
74S	Schottky	5V ± 5%
74LS	Low power Schottky	5V ± 5%
74F	Fast	5V ± 5%
74ALS	Advanced low power Schottky	5V ± 10%
74AS	Advanced Schottky	5V ± 10%
<b>CMOS</b>		
74C	CMOS	3 - 15V
74HC	High speed CMOS	2.0 - 6.0V
74HCS	Schmitt triggered high speed CMOS	2.0 - 6.0V
74AC	Advanced CMOS	2.0 - 6.0V
<b>Low voltage CMOS</b>		
74LV	Low voltage CMOS	2.7 - 3.6V
74LVT	Low votage BiCMOS	2.7 - 3.6V
74LVC	Low voltage CMOS	2.7 - 3.6V
74ALVC	Advanced low voltage CMOS	1.65 - 3.6V
74AUP	Advanced ultra-low low power	0.80 - 3.6V

## Logic devices (more commonly used ones)

7400	Quad 2 input NAND	7474	Dual D-type +edge triggered flip flop
7401	Quad 2 input NAND o/c	7475	4 bit bistable latch
7402	Quad 2 input NOR	7476	Dual J-K flip flop
7403	Quad 2 input NOR o/c	7477	4 bit bistable latch
7404	Hex nverter	7479	Dual D positive edge triggered flip flop
7405	Hex inverter o/c	7486	Quad 2 input XOR
7407	Hex buffer gate	7492	Divide by 12 counter
7408	Quad 2 input AND	7494	4 bit shift register
7409	Quad 2 input AND o/c		
7410	Triple 3 input NAND	74121	Monostable multivibrator
7412	Triple 3 input NAND o/c	74122	Retriggerable monostable multivibrator
7420	Dual 4 input NAND	74124	Dual voltage-controlled oscillator
7421	Dual 4 input AND	74176	Presetable decade counter
7422	Dual 4 input NAND o/c	74177	presetable binary counter / latch
7430	single 8 input NAND	74178	4 bit parallel access shift register
7441	BCD to decimal decoder / Nixie driver	74180	9 bit odd/even parity bit generator & checker
7442	BCD to decimal decoder	74182	Lookahead carry generator
7444	Gray code to decimal decoder	74568	Decade up/down counter
7456	50:1 frequency divider	74569	Binary up/down counter
7457	60:1 frequency divider		
7467	AND gated J-K flip flop		
7470	AND gated +edge triggered J-K flip flop		
7472	AND gated J-K master -slave flip flop		
7473	Dual J-K flip flop async clear		

o/c = open collector