

# 8080 PROGRAMMING CARD

<b>mnem</b>	<b>meaning</b>	<b>opcode</b>	<b>byte 1 op.</b>	<b>byte 2 op.</b>	<b>status bits</b>
RLC	rot acc l to c	00 000 111			c
RRC	rot acc r w/c	00 001 111			c
RAL	rot acc l thru	00 010 111			c
RAR	rot acc r thru	00 011 111			c
BC=00	DE=01	HL=10	flags,A=11		
PUSH	push	11 rp0 101			unaffected
POP	pop	11 rp0 001			unaffected
DAD		00 rp1 001			c
INX	incr rp	00 rp0 011			unaffected
DCX	decr rp	00 rp1 011			unaffected
XCHG	exchange	11 101 011			unaffected
XTHL	exch stK	11 100 011			unaffected
SPHL	load sp fr hl	11 111 001			unaffected
B=000	C=001 (HL)=110	D=010 A=111	E=011	H=100	L=101
INR	incr reg	00 reg 100			z,s,p,ac
DCR	decr reg	00 reg 101			z,s,p,ac
CMA	compl acc	00 101 111			unaffected
DAA	dec adj acc	00 100 111			z,s,p,c,ac
MOV	move sss->ddd	01 ddd sss			unaffected
ADD	acc + reg -> acc	10 000 reg			c,s,z,p,ac
ADC	acc+reg+c->acc	10 001 reg			c,s,z,p,ac
SUB	acc-reg->acc	10 010 reg			c,s,z,p,ac
SBB	acc-reg-c->acc	10 011 reg			c,s,z,p,ac
ANA	acc & reg -> acc	10 100 reg			c,z,s,p
XRA	acc xor reg -> acc	10 101 reg			c,s,z,p
ORA	acc or reg -> acc	10 110 reg			c,s,z,p
CMP	acc==reg -> acc	10 111 reg			c,s,z,p
BC=00	DE=01	HL=10	SP=11		
LXI	data -> rp	00 rp0 001	lo byte data	hi byte data	unaffected
MVI	data-> reg	00 reg 110	data		unaffected
ADI	acc + data -> acc	11 000 110	data		c,s,z,p,ac
ACI	acc+c+data->acc	11 001 110	data		c,s,z,p,ac
SUI	acc-data -> acc	11 010 110	data		c,s,z,p,ac
SBI	acc-data-c->acc	11 011 110	data		c,s,z,p,ac
ANI	acc&data->acc	11 100 110	data		c,s,z,p
XRI	acc xor data->acc	11 101 110	data		c,s,z,p
ORI	acc or data -> acc	11 110 110	data		c,s,z,p
CPI	acc==data->acc	11 111 110	data		c,s,z,p

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	x=0=>bc,x=1=>de				
STAX	move acc->(x)	00 0x0 010			unaffected
LDAX	move (x)->acc	00 0x1 010			unaffected
STA	move acc->(addr)	00 110 010	lo byte addr	hi byte addr	unaffected
LDA	mov (addr)->acc	00 111 010	lo byte addr	hi byte addr	unaffected
SHLD	mov HL->(addr)	00 100 010	lo byte addr	hi byte addr	unaffected
LHLD	mov (addr)->HL	00 101 010	lo byte addr	hi byte addr	unaffected
CMC	compl carry	00 111 111			c
STC	set carry	00 110 111			c
NOP	no operation	00 000 000			unaffected
EI	enable int	11 111 011			unaffected
Di	disable int	11 110 011			unaffected
HLT	halt	01 110 110			unaffected
RST	restart	11 exp 111			unaffected
IN	input	11 011 011	dev number		unaffected
OUT	output	11 010 011	dev number		unaffected
PCHL	jump to HL	11 101 001			unaffected
JMP	jump to addr	11 000 011	lo addr byte	hi addr byte	unaffected
JC	jmp addr if c=1	11 011 010	lo addr byte	hi addr byte	unaffected
JNC	jmp addr if c!=1	11 010 010	lo addr byte	hi addr byte	unaffected
JZ	jmp addr if z=1	11 001 010	lo addr byte	hi addr byte	unaffected
JNZ	jmp addr if z!=1	11 000 010	lo addr byte	hi addr byte	unaffected
JM	jmp addr if s=1	11 111 010	lo addr byte	hi addr byte	unaffected
JP	jmp addr if s=0	11 110 010	lo addr byte	hi addr byte	unaffected
JPE	jmp addr if p=1	11 101 010	lo addr byte	hi addr byte	unaffected
JPO	jmp addr if p=0	11 100 010	lo addr byte	hi addr byte	unaffected
CALL	jmp addr, push pc	11 001 101	lo addr byte	hi addr byte	unaffected
CC	call if c=1	11 011 100	lo addr byte	hi addr byte	unaffected
CNC	call if c=0	11 010 100	lo addr byte	hi addr byte	unaffected
CZ	call if z=1	11 001 100	lo addr byte	hi addr byte	unaffected
CNZ	call if z=0	11 000 100	lo addr byte	hi addr byte	unaffected
CM	call if s=1	11 111 100	lo addr byte	hi addr byte	unaffected
CP	call if s=0	11 110 100	lo addr byte	hi addr byte	unaffected
CPE	call if p=1	11 101 100	lo addr byte	hi addr byte	unaffected
CPO	call if p=0	11 100 100	lo addr byte	hi addr byte	unaffected
RET	jmp to pop sp	11 001 001			unaffected
RC	return if c=1	11 011 000			unaffected
RNC	return if c=0	11 010 000			unaffected
RZ	return if z=1	11 001 000			unaffected
RNZ	return if z=0	11 000 000			unaffected
RM	return if s=1	11 111 000			unaffected
RP	return if s=0	11 110 000			unaffected
RPE	return if p=1	11 101 000			unaffected
RPO	return if p=0	11 100 000			unaffected