

THE OTHER REGISTERS AND MEMORY ADDRESSING
HEX CODES FOR 8080 INSTRUCTIONS

DATA TRANSFER	SOURCE REGISTER									IMMEDIATE (DATA FROM PROGRAM)
	A	B	C	D	E	H	L	M	SP	
MOV A,s	7F	78	79	7A	7B	7C	7D	7E		MVI A 3E
MOV B,s	47	40	41	42	43	44	45	46		MVI B 06
MOV C,s	4F	48	49	4A	4B	4C	4D	4E		MVI C 0E
MOV D,s	57	50	51	52	53	54	55	56		MVI D 16
MOV E,s	5F	58	59	5A	5B	5C	5D	5E		MVI E 1E
MOV H,s	67	60	61	62	63	64	65	66		MVI H 26
MOV L,s	6F	68	69	6A	6B	6C	6D	6E		MVI L 2E
MOV M,s	77	70	71	72	73	74	75	-		MVI M 36
LXI rp		01		11		21			31	2 DATA BYTES FROM PROGRAM
LDA addr	3A									ADDRESS FROM PROGRAM (2 BYTES)
STA addr	32									
LDAX rp		0A		1A						ADDRESS FROM REGISTER PAIR
STAX rp		02		12						
LHLD addr						2A				ADDRESS FROM PROGRAM (2 BYTES)
SHLD addr						22				
SPLH						F9				SP ← HL PC ← HL (BRANCH) DE ↔ HL STACK TOP ↔ HL
PCHL						E9				
XCHG						EB				
XTHL						E3				
PUSH rp		C5		D5		E5	PUSH PSW F5			SP ← SP - 2 SP ← SP + 2
POP rp		C1		D1		E1	POP PSW F1			
COUNTING	A	B	C	D	E	H	L	M	SP	FLAGS AFFECTED
INR d	3C	04	0C	14	1C	24	2C	34		Z, S, P, AC
DCR d	3D	05	0D	15	1D	25	2D	35		Z, S, P, AC
INX rp		03		13		23			33	NONE
DCX rp		0B		1B		2B			3B	NONE
ARITH/LOGIC	A	B	C	D	E	H	L	M	SP	IMMEDIATE (DATA FROM PROGRAM)
DAD rp		09		19		29			39	ADDITIONAL INSTRUCTIONS: ADI C6 ACI CE SUI D6 SBI DE ANI E6 XRI EE ORI F6 CPI FE
ADD s	87	80	81	82	83	84	85	86		
ADC s	8F	88	89	8A	8B	8C	8D	8E		
SUB s	97	90	91	92	93	94	95	96		
SBB s	9F	98	99	9A	9B	9C	9D	9E		
ANA s	A7	A0	A1	A2	A3	A4	A5	A6		
XRA s	AF	A8	A9	AA	AB	AC	AD	AE		
ORA s	B7	B0	B1	B2	B3	B4	B5	B6		
CMP s	BF	B8	B9	BA	BB	BC	BD	BE		
	INSTRUCTION									FLAGS
ACCUMULATOR AND CARRY	RLC 07	RRC 0F	RAL 17	RAR 1F	DAA 27	CMA 2F	STC 37	CMC 3F		ONLY THE CY FLAG IS AFFECTED EXCEPT: CMA NO FLAGS DAA ALL FLAGS
BRANCH UNCOND	JMP C3	CALL CD	RET C9	PCHL E9	HLT 76	NOP 00				BRANCH AND IN/OUT INSTRUCTIONS DO NOT AFFECT ANY FLAGS DATA TRANSFER INSTRUCTIONS DO NOT AFFECT ANY FLAGS EXCEPT: POP PSW AFFECTS ALL FLAGS ARITHMETIC/LOGIC INSTRUCTIONS AFFECT ALL FLAGS EXCEPT: DAD AFFECTS CY ONLY INR AND DCR AFFECT ALL FLAGS EXCEPT: CY INX AND DCX DO NOT AFFECT ANY FLAGS
COND NZ	C2	C4	C0							
Z	CA	CC	C8							
NC	D2	D4	D0							
C	DA	DC	D8							
PO	E2	E4	E0							
PE	EA	EC	E8							
PLUS MINUS	F2 FA	F4 FC	F0 F8							
INPUT/OUTPUT & INTERRUPT	IN DB	OUT D3	EI FB	DI F3						IN AND OUT ARE TWO BYTE INSTRUCTIONS WITH PORT ADDRESS
RESTART (CALL TO) HEX CODE	RST 0 0000 C7	RST 1 0008 CF	RST 2 0010 D7	RST 3 0018 DF	RST 4 0020 E7	RST 5 0028 EF	RST 6 0030 F7	RST 7 0038 FF		

WARNING

NEVER CONNECT OR DISCONNECT CABLES WITH THE POWER ON. ALWAYS TURN OFF POWER BEFORE CONNECTING OR DISCONNECTING CABLES.

BE CERTAIN TO CONNECT CABLE PROPERLY BETWEEN MICROCOMPUTER AND INTERFACE SYSTEMS AS FOLLOWS:

- A. FOLD CABLE AS SHOWN.
- B. CONNECT CABLE TO MICROCOMPUTER. ROUTE CABLE UNDERNEATH MICROCOMPUTER BETWEEN MICROCOMPUTER AND POWER SUPPLY, THEN OUT LEFT SIDE OF MICROCOMPUTER. ATTACH TO INTERFACE SYSTEM. BE CERTAIN TO ORIENT CABLES AS SHOWN.



