

A. PRILOG: Naredbe mikroprocesora Z80

Ovo poglavlje sadrži sve naredbe mikroprocesora Z80. Naredbe su poredane u tablici (Tab.A. 2) po abecednom redu. U prvom stupcu prikazane su naredbe, a u drugom stupcu prikazan je strojni kod naredbe. U trećem stupcu prikazan je broj taktova koji je potreban za izvršavanje pojedine naredbe. Funkcionalni opis naredbe prikazan je u četvrtom stupcu. Posljednji stupac prikazuje utjecaj određene naredbe na zastavice mikroprocesora Z80. Oznake kod pisanja naredbi i utjecaj naredbi na zastavice opisan je u tablici (Tab.A. 1).

Tab.A. 1. Oznake korištene u tablici (Tab.A.2).

Oznaka	Opis oznake	Oznaka	Opis oznake
+	utječe na zastavicu ovisno o rezultatu naredbe	d8	8-bitni podatak
-	ne utječe na zastavicu	d16	16-bitni podatak
?	ne definirano stanje	a16	16-bitna adresa
0	postavlja zastavicu u 0	p8	8-bitna adresa
1	postavlja zastavicu u 1	()	neizravno adresiranje memorije
P	paritet kod P/V zastavice	dd	pomak adrese
V	preliv kod P/V zastavice	l1	8-bita nžeg bajta 16-bitnog podatka
		hh	8-bita višeg bajta 16-bitnog podatka

Tab.A. 2. Sve naredbe mikroprocesora Z80.

NAREDBA	STROJNI KOD	TAKTOVA	FUNKCIONALNI OPIS NAREDBE	S	Z	H	P/V	N	C
ADC A, (HL)	8E	7	$A = A + (HL) + Cy$	+	+	+	V	0	+
ADC A, (IX + dd)	DD8Edd	19	$A = A + (IX + dd) + Cy$	+	+	+	V	0	+
ADC A, (IY + dd)	FD8Edd	19	$A = A + (IY + dd) + Cy$	+	+	+	V	0	+
ADC A, B	88	4	$A = A + B + Cy$	+	+	+	V	0	+
ADC A, C	89	4	$A = A + C + Cy$	+	+	+	V	0	+
ADC A, D	8A	4	$A = A + D + Cy$	+	+	+	V	0	+
ADC A, E	8B	4	$A = A + E + Cy$	+	+	+	V	0	+
ADC A, H	8C	4	$A = A + H + Cy$	+	+	+	V	0	+
ADC A, L	8D	4	$A = A + L + Cy$	+	+	+	V	0	+
ADC A, A	8F	4	$A = A + A + Cy$	+	+	+	V	0	+
ADC A, d8	CEd8	7	$A = A + d8 + Cy$	+	+	+	V	0	+
ADC HL, BC	ED4A	15	$HL = HL + BC + Cy$	+	?	+	V	0	+
ADC HL, DE	ED5A	15	$HL = HL + DE + Cy$	+	?	+	V	0	+
ADC HL, HL	ED6A	15	$HL = HL + HL + Cy$	+	?	+	V	0	+
ADC HL, SP	ED7A	15	$HL = HL + SP + Cy$	+	?	+	V	0	+
ADD A, (HL)	86	7	$A = A + (HL)$	+	+	+	V	0	+
ADD A, (IX + dd)	DD86dd	19	$A = A + (IX + dd)$	+	+	+	V	0	+
ADD A, (IY + dd)	FD86dd	19	$A = A + (IY + dd)$	+	+	+	V	0	+
ADD A, B	80	4	$A = A + B$	+	+	+	V	0	+
ADD A, C	81	4	$A = A + C$	+	+	+	V	0	+
ADD A, D	82	4	$A = A + D$	+	+	+	V	0	+
ADD A, E	83	4	$A = A + E$	+	+	+	V	0	+
ADD A, H	84	4	$A = A + H$	+	+	+	V	0	+
ADD A, L	85	4	$A = A + L$	+	+	+	V	0	+
ADD A, A	87	4	$A = A + A$	+	+	+	V	0	+
ADD A, d8	C6d8	7	$A = A + d8$	+	+	+	V	0	+
ADD HL, BC	09	11	$HL = HL + BC$	-	-	?	-	0	+
ADD HL, DE	19	11	$HL = HL + DE$	-	-	?	-	0	+
ADD HL, HL	29	11	$HL = HL + HL$	-	-	?	-	0	+
ADD HL, SP	39	11	$HL = HL + SP$	-	-	?	-	0	+
ADD IX, BC	DD09	15	$IX = IX + BC$	-	-	?	-	0	+
ADD IX, DE	DD19	15	$IX = IX + DE$	-	-	?	-	0	+

NAREDBA	STROJNI KOD	TAKTOVA	FUNKCIONALNI OPIS NAREDBE	S	Z	H	P/V	N	C
ADD IX,IX	DD29	15	IX = IX + IX	-	-	?	-	0	+
ADD IX,SP	DD39	15	IX = IX + SP	-	-	?	-	0	+
ADD IY,BC	FD09	15	IY = IY + BC	-	-	?	-	0	+
ADD IY,DE	FD19	15	IY = IY + DE	-	-	?	-	0	+
ADD IY,IX	FD29	15	IY = IY + IX	-	-	?	-	0	+
ADD IY,SP	FD39	15	IY = IY + SP	-	-	?	-	0	+
AND (HL)	A6	7	A = A & (HL)	+	+	1	P	0	0
AND (IX + dd)	DDA6dd	19	A = A & (IX + dd)	+	+	1	P	0	0
AND (IY + dd)	FDA6dd	19	A = A & (IY + dd)	+	+	1	P	0	0
AND B	A0	4	A = A & B	+	+	1	P	0	0
AND C	A1	4	A = A & C	+	+	1	P	0	0
AND D	A2	4	A = A & D	+	+	1	P	0	0
AND E	A3	4	A = A & E	+	+	1	P	0	0
AND H	A4	4	A = A & H	+	+	1	P	0	0
AND L	A5	4	A = A & L	+	+	1	P	0	0
AND A	A7	4	A = A & A	+	+	1	P	0	0
AND d8	EDd6	7	A = A & d8	+	+	1	P	0	0
BIT 0, (HL)	CB46	12	test bit 0 of data at address (HL)	?	+	1	?	0	-
BIT 0, (IX + dd)	DDCBdd46	20	test bit 0 at address (IX + dd)	?	+	1	?	0	-
BIT 0, (IY + dd)	FDCBdd46	20	test bit 0 at address (IY + dd)	?	+	1	?	0	-
BIT 0,B	CB40	8	test bit 0 of register B	?	+	1	?	0	-
BIT 0,C	CB41	8	test bit 0 of register C	?	+	1	?	0	-
BIT 0,D	CB42	8	test bit 0 of register D	?	+	1	?	0	-
BIT 0,E	CB43	8	test bit 0 of register E	?	+	1	?	0	-
BIT 0,H	CB44	8	test bit 0 of register H	?	+	1	?	0	-
BIT 0,L	CB45	8	test bit 0 of register L	?	+	1	?	0	-
BIT 0,A	CB47	8	test bit 0 of register A	?	+	1	?	0	-
BIT 1, (HL)	CB4E	12	test bit 1 of data at address (HL)	?	+	1	?	0	-
BIT 1, (IX + dd)	DDCBdd4E	20	test bit 1 at address (IX + dd)	?	+	1	?	0	-
BIT 1, (IY + dd)	FDCBdd4E	20	test bit 1 at address (IY + dd)	?	+	1	?	0	-
BIT 1,B	CB48	8	test bit 1 of register B	?	+	1	?	0	-
BIT 1,C	CB4 9	8	test bit 1 of register C	?	+	1	?	0	-
BIT 1,D	CB4A	8	test bit 1 of register D	?	+	1	?	0	-
BIT 1,E	CB4B	8	test bit 1 of register E	?	+	1	?	0	-
BIT 1,H	CB4C	8	test bit 1 of register H	?	+	1	?	0	-
BIT 1,L	CB4D	8	test bit 1 of register L	?	+	1	?	0	-
BIT 1,A	CB4F	8	test bit 1 of register A	?	+	1	?	0	-
BIT 2, (HL)	CB56	12	test bit 2 of data at address (HL)	?	+	1	?	0	-
BIT 2, (IX + dd)	DDCBdd56	20	test bit 2 at address (IX + dd)	?	+	1	?	0	-
BIT 2, (IY + dd)	FDCBdd56	20	test bit 2 at address (IY + dd)	?	+	1	?	0	-
BIT 2,B	CB50	8	test bit 2 of register B	?	+	1	?	0	-
BIT 2,C	CB51	8	test bit 2 of register C	?	+	1	?	0	-
BIT 2,D	CB52	8	test bit 2 of register D	?	+	1	?	0	-
BIT 2,E	CB53	8	test bit 2 of register E	?	+	1	?	0	-
BIT 2,H	CB54	8	test bit 2 of register H	?	+	1	?	0	-
BIT 2,L	CB55	8	test bit 2 of register L	?	+	1	?	0	-
BIT 2,A	CB57	8	test bit 2 of register A	?	+	1	?	0	-
BIT 3, (HL)	CB5E	12	test bit 3 of data at address (HL)	?	+	1	?	0	-
BIT 3, (IX + dd)	DDCBdd5E	20	test bit 3 at address (IX + dd)	?	+	1	?	0	-
BIT 3, (IY + dd)	FDCBdd5E	20	test bit 3 at address (IY + dd)	?	+	1	?	0	-
BIT 3,B	CB58	8	test bit 3 of register B	?	+	1	?	0	-
BIT 3,C	CB59	8	test bit 3 of register C	?	+	1	?	0	-
BIT 3,D	CB5A	8	test bit 3 of register D	?	+	1	?	0	-
BIT 3,E	CB5B	8	test bit 3 of register E	?	+	1	?	0	-
BIT 3,H	CB5C	8	test bit 3 of register H	?	+	1	?	0	-
BIT 3,L	CB5D	8	test bit 3 of register L	?	+	1	?	0	-
BIT 3,A	CB5F	8	test bit 3 of register A	?	+	1	?	0	-
BIT 4, (HL)	CB66	12	test bit 4 of data at address (HL)	?	+	1	?	0	-
BIT 4, (IX + dd)	DDCBdd66	20	test bit 4 at address (IX + dd)	?	+	1	?	0	-
BIT 4, (IY + dd)	FDCBdd66	20	test bit 4 at address (IY + dd)	?	+	1	?	0	-
BIT 4,B	CB60	8	test bit 4 of register B	?	+	1	?	0	-
BIT 4,C	CB61	8	test bit 4 of register C	?	+	1	?	0	-

NAREDBA	STROJNI KOD	TAKTOVA	FUNKCIONALNI OPIS NAREDBE	S	Z	H	P/V	N	C
BIT 4,D	CB62	8	test bit 4 of register D	?	+	1	?	0	-
BIT 4,E	CB63	8	test bit 4 of register E	?	+	1	?	0	-
BIT 4,H	CB64	8	test bit 4 of register H	?	+	1	?	0	-
BIT 4,L	CB65	8	test bit 4 of register L	?	+	1	?	0	-
BIT 4,A	CB67	8	test bit 4 of register A	?	+	1	?	0	-
BIT 5, (HL)	CB6E	12	test bit 5 of data at address (HL)	?	+	1	?	0	-
BIT 5, (IX + dd)	DDCBdd6E	20	test bit 5 at address (IX + dd)	?	+	1	?	0	-
BIT 5, (IY + dd)	FDCBdd6E	20	test bit 5 at address (IY + dd)	?	+	1	?	0	-
BIT 5,B	CB68	8	test bit 5 of register B	?	+	1	?	0	-
BIT 5,C	CB69	8	test bit 5 of register C	?	+	1	?	0	-
BIT 5,D	CB6A	8	test bit 5 of register D	?	+	1	?	0	-
BIT 5,E	CB6B	8	test bit 5 of register E	?	+	1	?	0	-
BIT 5,H	CB6C	8	test bit 5 of register H	?	+	1	?	0	-
BIT 5,L	CB6D	8	test bit 5 of register L	?	+	1	?	0	-
BIT 5,A	CB6F	8	test bit 5 of register A	?	+	1	?	0	-
BIT 6, (HL)	CB76	12	test bit 6 of data at address (HL)	?	+	1	?	0	-
BIT 6, (IX + dd)	DDCBdd76	20	test bit 6 at address (IX + dd)	?	+	1	?	0	-
BIT 6, (IY + dd)	FDCBdd76	20	test bit 6 at address (IY + dd)	?	+	1	?	0	-
BIT 6,B	CB70	8	test bit 6 of register B	?	+	1	?	0	-
BIT 6,C	CB71	8	test bit 6 of register C	?	+	1	?	0	-
BIT 6,D	CB72	8	test bit 6 of register D	?	+	1	?	0	-
BIT 6,E	CB73	8	test bit 6 of register E	?	+	1	?	0	-
BIT 6,H	CB74	8	test bit 6 of register H	?	+	1	?	0	-
BIT 6,L	CB75	8	test bit 6 of register L	?	+	1	?	0	-
BIT 6,A	CB77	8	test bit 6 of register A	?	+	1	?	0	-
BIT 7, (HL)	CB7E	12	test bit 7 of data at address (HL)	?	+	1	?	0	-
BIT 7, (IX + dd)	DDCBdd7E	20	test bit 7 at address (IX + dd)	?	+	1	?	0	-
BIT 7, (IY + dd)	FDCBdd7E	20	test bit 7 at address (IY + dd)	?	+	1	?	0	-
BIT 7,B	CB78	8	test bit 7 of register B	?	+	1	?	0	-
BIT 7,C	CB79	8	test bit 7 of register C	?	+	1	?	0	-
BIT 7,D	CB7A	8	test bit 7 of register D	?	+	1	?	0	-
BIT 7,E	CB7B	8	test bit 7 of register E	?	+	1	?	0	-
BIT 7,H	CB7C	8	test bit 7 of register H	?	+	1	?	0	-
BIT 7,L	CB7D	8	test bit 7 of register L	?	+	1	?	0	-
BIT 7,A	CB7F	8	test bit 7 of register A	?	+	1	?	0	-
CALL C,adr	DC11hh	10/17	CALL if carry	-	-	-	-	-	-
CALL M,adr	FC11hh	10/17	CAALL if minus	-	-	-	-	-	-
CALL NC,adr	D411hh	10/17	CALL if not carry	-	-	-	-	-	-
CALL adr	CD11hh	17	CALL subroutine	-	-	-	-	-	-
CALL NZ,adr	C411hh	10/17	CALL if not zero	-	-	-	-	-	-
CALL P,adr	F411hh	10/17	CALL if positive	-	-	-	-	-	-
CALL PE,adr	EC11hh	10/17	CALL if parity even	-	-	-	-	-	-
CALL PO,adr	E411hh	10/17	CALL if parity odd	-	-	-	-	-	-
CALL Z,adr	CC11hh	10/17	CALL if zero	-	-	-	-	-	-
CCF	3F	4	complement carry	-	-	?	-	0	+
CP (HL)	BE	7	compare A with (HL)	+	+	+	V	1	+
CP (IX + dd)	DDBedd	19	compare A with (IX + dd)	+	+	+	V	1	+
CP (IY + dd)	FDBedd	19	compare A with (IY + dd)	+	+	+	V	1	+
CP B	B8	4	compare A with B	+	+	+	V	1	+
CP C	B9	4	compare A with C	+	+	+	V	1	+
CP D	BA	4	compare A with D	+	+	+	V	1	+
CP E	BB	4	compare A with E	+	+	+	V	1	+
CP H	BC	4	compare A with H	+	+	+	V	1	+
CP L	BD	4	compare A with L	+	+	+	V	1	+
CP A	BF	4	compare A with A	+	+	+	V	1	+
CP d8	FEd8	7	compare A with d8	+	+	+	V	1	+
CPD	EDA9	16	compare A with (HL) then decrement HL and BC	+	+	+	+	1	-
CPDR	EDB9	21/16	compare A with (HL) then decrement HL and BC. Repeat until BC=0 or A=(HL)	+	+	+	+	1	-
CPI	EDA1	16	compare A with (HL) then increment HL and decrement BC	+	+	+	+	1	-

NAREDBA	STROJNI KOD	TAKTOVA	FUNKCIONALNI OPIS NAREDBE	S	Z	H	P/V	N	C
CPIR	EDB1	21/16	compare A with (HL) then decrement BC and increment HL. Repeat until BC = 0 or A = (HL)	+	+	+	+	1	-
CPL	2F	4	complement A	-	-	1	-	1	-
DAA	27	4	decimal adjust A	+	+	+	P	-	+
DEC (HL)	35	11	(HL) = (HL) - 1	+	+	+	V	1	-
DEC (IX + dd)	DD35dd	23	(IX + dd) = (IX + dd) - 1	+	+	+	V	1	-
DEC (IY + dd)	FD35dd	23	(IY + dd) = (IY + dd) - 1	+	+	+	V	1	-
DEC B	05	4	B = B - 1	+	+	+	V	1	-
DEC C	0D	4	C = C - 1	+	+	+	V	1	-
DEC D	15	4	D = D - 1	+	+	+	V	1	-
DEC E	1D	4	E = E - 1	+	+	+	V	1	-
DEC H	25	4	H = H - 1	+	+	+	V	1	-
DEC L	2D	4	L = L - 1	+	+	+	V	1	-
DEC A	3D	4	A = A - 1	+	+	+	V	1	-
DEC BC	0B	6	BC = BC - 1	-	-	-	-	-	-
DEC DE	1B	6	DE = DE - 1	-	-	-	-	-	-
DEC HL	2B	6	HL = HL - 1	-	-	-	-	-	-
DEC SP	3B	6	SP = SP - 1	-	-	-	-	-	-
DEC IX	DD2B	10	IX = IX - 1	-	-	-	-	-	-
DEC IY	FD2B	10	IY = IY - 1	-	-	-	-	-	-
DI	F3	4	disable interrupts	-	-	-	-	-	-
DJNZ	10dd	8/13	decrement B and jump if B is not zero	-	-	-	-	-	-
EI	FB	4	enable interrupts	-	-	-	-	-	-
EX (SP),HL	E3	19	exchange HL with (SP)	-	-	-	-	-	-
EX (SP),IX	DDE3	23	exchange IX with (SP)	-	-	-	-	-	-
EX (SP),IY	FDE3	23	exchange IY with (SP)	-	-	-	-	-	-
EX AF,AF	08	4	exchange AF with AF	-	-	-	-	-	-
EX DE,HL	EB	4	exchange DE with HL	-	-	-	-	-	-
EXX	D9	4	exchange BC,DE and HL with BC',DE' and HL'	-	-	-	-	-	-
HALT	76	4	halt for interrupts or reset	-	-	-	-	-	-
IM 0	ED46	8	select interrupt mode 0	-	-	-	-	-	-
IM 1	ED56	8	select interrupt mode 1	-	-	-	-	-	-
IM 2	ED5E	8	select interrupt mode 2	-	-	-	-	-	-
IN A, (C)	ED78	12	input data to A from I/O port (C)	+	+	+	P	0	-
IN A, (p8)	DBp8	11	input data to A from I/O port (p8)	+	+	+	P	0	-
IN B, (C)	ED40	12	input data to B from I/O port (C)	+	+	+	P	0	-
IN C, (C)	ED48	12	input data to C from I/O port (C)	+	+	+	P	0	-
IN D, (C)	ED50	12	input data to D from I/O port (C)	+	+	+	P	0	-
IN E, (C)	ED58	12	input data to E from I/O port (C)	+	+	+	P	0	-
IN H, (C)	ED60	12	input data to H from I/O port (C)	+	+	+	P	0	-
IN L, (C)	ED69	12	input data to L from I/O port (C)	+	+	+	P	0	-
INC (HL)	34	11	(HL) = (HL) + 1	+	+	+	V	0	-
INC (IX + dd)	DD34dd	23	(IX + dd) = (IX + dd) + 1	+	+	+	V	0	-
INC (IY + dd)	FD34dd	23	(IY + dd) = (IY + dd) + 1	+	+	+	V	0	-
INC B	04	4	B = B + 1	+	+	+	V	0	-
INC C	0C	4	C = C + 1	+	+	+	V	0	-
INC D	14	4	D = D + 1	+	+	+	V	0	-
INC E	1C	4	E = E + 1	+	+	+	V	0	-
INC H	24	4	H = H + 1	+	+	+	V	0	-
INC L	2C	4	L = L + 1	+	+	+	V	0	-
INC A	3C	4	A = A + 1	+	+	+	V	0	-
INC BC	03	6	BC = BC + 1	-	-	-	-	-	-
INC DE	13	6	DE = DE + 1	-	-	-	-	-	-
INC HL	23	6	HL = HL + 1	-	-	-	-	-	-
INC SP	33	6	SP = SP + 1	-	-	-	-	-	-
INC IX	DD23	10	IX = IX + 1	-	-	-	-	-	-
INC IY	FD23	10	IY = IY + 1	-	-	-	-	-	-
IND	EDAA	16	input data to (HL) from I/O port (C). Decrement B and HL.	?	+	?	?	1	-
INDR	EDBA	21/16	input data to (HL) from I/O port (C). Decrement B and HL until B = 0	?	1	?	?	1	-

NAREDBA	STROJNI KOD	TAKTOVA	FUNKCIONALNI OPIS NAREDBE	S	Z	H	P/V	N	C
INI	EDA2	16	input data to (HL) from I/O port (C). Decrement B and increment HL.	?	+	?	?	1	-
INIR	EDB2	21/16	input data to (HL) from I/O port (C). Decrement B and increment HL. Re-peat until B = 0	?	1	?	?	1	-
JP (HL)	E9	4	jump to address (HL)	-	-	-	-	-	-
JP (IX)	DDE9	8	jump to address (IX)	-	-	-	-	-	-
JP (IY)	FDE9	8	jump to address (IY)	-	-	-	-	-	-
JP C,adr	DA11hh	10	jump if carry	-	-	-	-	-	-
JP M,adr	FA11hh	10	jump if minus	-	-	-	-	-	-
JP NC,adr	D211hh	10	jump if no carry	-	-	-	-	-	-
JP adr	C311hh	10	jump	-	-	-	-	-	-
JP NZ,adr	C211hh	10	jump if not zero	-	-	-	-	-	-
JP P,adr	F211hh	10	jump if positive	-	-	-	-	-	-
JP PE,adr	EA11hh	10	jump if parity even	-	-	-	-	-	-
JP PO,adr	E211hh	10	jump if parity odd	-	-	-	-	-	-
JP Z,adr	CA11hh	10	jump if zero	-	-	-	-	-	-
JR C,dd	38dd	7/12	jump relative if carry	-	-	-	-	-	-
JR dd	18dd	12	jump relative	-	-	-	-	-	-
JR NC,dd	30dd	7/12	jump relative if no carry	-	-	-	-	-	-
JR NZ,dd	20dd	7/12	jump relative if not zero	-	-	-	-	-	-
JR Z,dd	28dd	7/12	jump relative if zero	-	-	-	-	-	-
LD (BC),A	02	7	load (BC) from A	-	-	-	-	-	-
LD (DE),A	12	7	load (DE) from A	-	-	-	-	-	-
LD (HL),B	70	7	load (HL) from B	-	-	-	-	-	-
LD (HL),C	71	7	load (HL) from C	-	-	-	-	-	-
LD (HL),D	72	7	load (HL) from D	-	-	-	-	-	-
LD (HL),E	73	7	load (HL) from E	-	-	-	-	-	-
LD (HL),H	74	7	load (HL) from H	-	-	-	-	-	-
LD (HL),L	75	7	load (HL) from L	-	-	-	-	-	-
LD (HL),A	77	7	load (HL) from A	-	-	-	-	-	-
LD (HL),d8	36d8	7	load (HL) with d8	-	-	-	-	-	-
LD (IX + dd),B	DD70dd	19	load (IX + dd) from B	-	-	-	-	-	-
LD (IX + dd),C	DD71dd	19	load (IX + dd) from C	-	-	-	-	-	-
LD (IX + dd),D	DD72dd	19	load (IX + dd) from D	-	-	-	-	-	-
LD (IX + dd),E	DD73dd	19	load (IX + dd) from E	-	-	-	-	-	-
LD (IX + dd),H	DD74dd	19	load (IX + dd) from H	-	-	-	-	-	-
LD (IX + dd),L	DD75dd	19	load (IX + dd) from L	-	-	-	-	-	-
LD (IX + dd),A	DD77dd	19	load (IX + dd) from A	-	-	-	-	-	-
LD (IX + dd),d8	DD36ddd8	19	load (IX + dd) with d8	-	-	-	-	-	-
LD (IY + dd),B	FD70dd	19	load (IY + dd) from B	-	-	-	-	-	-
LD (IY + dd),C	FD71dd	19	load (IY + dd) from C	-	-	-	-	-	-
LD (IY + dd),D	FD72dd	19	load (IY + dd) from D	-	-	-	-	-	-
LD (IY + dd),E	FD73dd	19	load (IY + dd) from E	-	-	-	-	-	-
LD (IY + dd),H	FD74dd	19	load (IY + dd) from H	-	-	-	-	-	-
LD (IY + dd),L	FD75dd	19	load (IY + dd) from L	-	-	-	-	-	-
LD (IY + dd),A	FD77dd	19	load (IY + dd) from A	-	-	-	-	-	-
LD (IY + dd),d8	FD36ddd8	19	load (IY + dd) with d8	-	-	-	-	-	-
LD (adr),A	3211hh	13	load (adr) from A	-	-	-	-	-	-
LD (adr),BC	ED4311hh	20	load (adr) from BC	-	-	-	-	-	-
LD (adr),DE	ED5211hh	20	load (adr) from DE	-	-	-	-	-	-
LD (adr),HL	2211hh	10	load (adr) from HL	-	-	-	-	-	-
LD (adr),IX	DD2211hh	20	load (adr) from IX	-	-	-	-	-	-
LD (adr),IY	FD2211hh	20	load (adr) from IY	-	-	-	-	-	-
LD (adr),SP	ED7311hh	20	load (adr) from SP	-	-	-	-	-	-
LD A,(BC)	0A	7	load A from (BC)	-	-	-	-	-	-
LD A,(DE)	1A	7	load A from (DE)	-	-	-	-	-	-
LD A,(HL)	7E	7	load A from (HL)	-	-	-	-	-	-
LD A,(IX + dd)	DD7Edd	19	load A from (IX + dd)	-	-	-	-	-	-
LD A,(IY + dd)	FD7Edd	19	load A from (IY + dd)	-	-	-	-	-	-
LD A,(adr)	3A11hh	13	load A from (adr)	-	-	-	-	-	-
LD A,A	7F	4	load A from A	-	-	-	-	-	-
LD A,B	78	4	load A from B	-	-	-	-	-	-

NAREDBA	STROJNI KOD	TAKTOVA	FUNKCIONALNI OPIS NAREDBE	S	Z	H	P/V	N	C
LD A,C	79	4	load A from C	-	-	-	-	-	-
LD A,D	7A	4	load A from D	-	-	-	-	-	-
LD A,E	7B	4	load A from E	-	-	-	-	-	-
LD A,H	7C	4	load A from H	-	-	-	-	-	-
LD A,L	7D	4	load A from L	-	-	-	-	-	-
LD A,d8	3Ed8	7	load A with d8	-	-	-	-	-	-
LD A,I	ED57	9	load A from I	+	+	0	+	0	-
LD A,R	ED5F	9	load A from R	+	+	0	+	-	-
LD B, (HL)	46	7	load B from (HL)	-	-	-	-	-	-
LD B, (IX + dd)	DD46dd	19	load B from (IX + dd)	-	-	-	-	-	-
LD B, (IY + dd)	FD46dd	19	load B from (IY + dd)	-	-	-	-	-	-
LD B,A	47	4	load B from A	-	-	-	-	-	-
LD B,C	48	4	load B from C	-	-	-	-	-	-
LD B,4	49	4	load B from D	-	-	-	-	-	-
LD B,4	4A	4	load B from E	-	-	-	-	-	-
LD B,H	4B	4	load B from H	-	-	-	-	-	-
LD B,L	4C	4	load B from L	-	-	-	-	-	-
LD B,d8	06d8	7	load B with d8	-	-	-	-	-	-
LD BC, (adr)	ED4B11hh	20	load BC from (adr)	-	-	-	-	-	-
LD BC,d16	0111hh	10	load BC with d16	-	-	-	-	-	-
LD C, (HL)	4E	7	load C from (HL)	-	-	-	-	-	-
LD C, (IX + dd)	DD4Edd	19	load C from (IX + dd)	-	-	-	-	-	-
LD C, (IY + dd)	FD4Edd	19	load C from (IY + dd)	-	-	-	-	-	-
LD C,A	4F	4	load C from A	-	-	-	-	-	-
LD C,B	48	4	load C from B	-	-	-	-	-	-
LD C,C	49	4	load C from C	-	-	-	-	-	-
LD C,D	4A	4	load C from D	-	-	-	-	-	-
LD C,E	4B	4	load C from E	-	-	-	-	-	-
LD C,H	4C	4	load C from H	-	-	-	-	-	-
LD C,L	4D	4	load C from L	-	-	-	-	-	-
LD C,d8	0Ed8	7	load C with d8	-	-	-	-	-	-
LD D, (HL)	56	7	load D from (HL)	-	-	-	-	-	-
LD D, (IX + dd)	DD56dd	19	load D from (IX + dd)	-	-	-	-	-	-
LD D, (IY + dd)	FD56dd	19	load D from (IY + dd)	-	-	-	-	-	-
LD D,A	57	7	load D from A	-	-	-	-	-	-
LD D,B	50	4	load D from B	-	-	-	-	-	-
LD D,C	51	4	load D from C	-	-	-	-	-	-
LD D,D	52	4	load D from D	-	-	-	-	-	-
LD D,E	53	4	load D from E	-	-	-	-	-	-
LD D,H	54	4	load D from H	-	-	-	-	-	-
LD D,L	55	4	load D from L	-	-	-	-	-	-
LD D,d8	16d8	7	load D with d8	-	-	-	-	-	-
LD DE, (adr)	ED5B11hh	20	load DE from (adr)	-	-	-	-	-	-
LD DE,d16	1111hh	10	load DE with d16	-	-	-	-	-	-
LD E, (HL)	5E	7	load E from (HL)	-	-	-	-	-	-
LD E, (IX + dd)	DD5Edd	19	load E from (IX + dd)	-	-	-	-	-	-
LD E, (IY + dd)	FD5Edd	19	load E from (IY + dd)	-	-	-	-	-	-
LD E,A	5F	4	load E from A	-	-	-	-	-	-
LD E,B	58	4	load E from B	-	-	-	-	-	-
LD E,C	59	4	load E from C	-	-	-	-	-	-
LD E,D	5A	4	load E from D	-	-	-	-	-	-
LD E,E	5B	4	load E from E	-	-	-	-	-	-
LD E,H	5C	4	load E from H	-	-	-	-	-	-
LD E,L	5D	4	load E from L	-	-	-	-	-	-
LD E,d8	1Ed8	7	load E with d8	-	-	-	-	-	-
LD H, (HL)	66	7	load H from (HL)	-	-	-	-	-	-
LD H, (IX + dd)	DD66dd	19	load H from (IX + dd)	-	-	-	-	-	-
LD H, (IY + dd)	FD66dd	19	load H from (IY + dd)	-	-	-	-	-	-
LD H,A	67	4	load H from A	-	-	-	-	-	-
LD H,B	60	4	load H from B	-	-	-	-	-	-
LD H,C	61	4	load H from C	-	-	-	-	-	-
LD H,D	62	4	load H from D	-	-	-	-	-	-

NAREDBA	STROJNI KOD	TAKTOVA	FUNKCIONALNI OPIS NAREDBE	S	Z	H	P/V	N	C
LD H,E	63	4	load H from E	-	-	-	-	-	-
LD H,H	64	4	load H from H	-	-	-	-	-	-
LD H,L	65	4	load H from L	-	-	-	-	-	-
LD H,d8	26d8	4	load H with d8	-	-	-	-	-	-
LD HL,(adr)	2A11hh	16	load HL from (adr)	-	-	-	-	-	-
LD HL,d16	2111hh	10	load HL with d16	-	-	-	-	-	-
LD I,A	ED47	9	load I from A	-	-	-	-	-	-
LD IX,(adr)	DD2A11hh	20	load IX from (adr)	-	-	-	-	-	-
LD IX,d16	DD2111hh	14	load IX with d16	-	-	-	-	-	-
LD IY,(adr)	FD2A11hh	20	load IY from (adr)	-	-	-	-	-	-
LD IY,d16	FD2111hh	14	load IY with d16	-	-	-	-	-	-
LD L,(HL)	8E	7	load L from (HL)	-	-	-	-	-	-
LD L,(IX + dd)	DD6Edd	19	load L from (IX + dd)	-	-	-	-	-	-
LD L,(IY + dd)	FD6Edd	19	load L from (IY + dd)	-	-	-	-	-	-
LD L,A	6F	4	load L from A	-	-	-	-	-	-
LD L,B	68	4	load L from B	-	-	-	-	-	-
LD L,C	69	4	load L from C	-	-	-	-	-	-
LD L,D	6A	4	load L from D	-	-	-	-	-	-
LD L,E	6B	4	load L from E	-	-	-	-	-	-
LD L,H	6C	4	load L from H	-	-	-	-	-	-
LD L,L	6D	4	load L from L	-	-	-	-	-	-
LD L,d8	2Ed8	4	load L with d8	-	-	-	-	-	-
LD R,A	ED4F	4	load R from A	-	-	-	-	-	-
LD SP,(adr)	ED7B11hh	20	load SP from (adr)	-	-	-	-	-	-
LD SP,HL	F9	6	load SP from HL	-	-	-	-	-	-
LD SP,IX	DDF9	10	load SP from IX	-	-	-	-	-	-
LD SP,IY	FDF9	10	load SP from IY	-	-	-	-	-	-
LD SP,d16	3111hh	10	load SP with d16	-	-	-	-	-	-
LDD	EDA8	16	load (HL) from (DE) then decrement BC, DE and HL.	-	-	0	+	0	-
LDDR	EDB8	21/16	load (HL) from (DE) then decrement BC, DE and HL. Repeat until BC = 0.	-	-	0	0	0	-
LDI	EDA0	16	load (HL) from (DE) then decrement BC and increment DE and HL.	-	-	0	+	0	-
LDIR	EDB0	21/16	load (HL) from (DE) then decrement BC and increment DE and HL. Repeat until BC = 0.	-	-	0	+	0	-
NEG	ED44	8	2's complement A	+	+	+	V	1	+
NOP	00	1	No operation	-	-	-	-	-	-
OR (HL)	B6	7	A = A V (HL)	+	+	0	P	0	0
OR (IX + dd)	DDB6dd	19	A = A V (IX + dd)	+	+	0	P	0	0
OR (IY + dd)	FDB6dd	19	A = A V (IY + dd)	+	+	0	P	0	0
OR A	B7	4	A = A V A	+	+	0	P	0	0
OR B	B0	4	A = A V B	+	+	0	P	0	0
OR C	B1	4	A = A V C	+	+	0	P	0	0
OR D	B2	4	A = A V D	+	+	0	P	0	0
OR E	B3	4	A = A V E	+	+	0	P	0	0
OR H	B4	4	A = A V H	+	+	0	P	0	0
OR L	B5	4	A = A V L	+	+	0	P	0	0
OR d8	F6d8	7	A = A V d8	+	+	0	P	0	0
OTDR	EDBB	21/16	output (HL) to I/O port (C). Decrement B and HL. Repeat until B = 0.	-	-	-	-	-	-
OTIR	EDB3	21/16	output (HL) to I/O port (C). Decrement B and increment HL. Repeat until B=0.	-	-	-	-	-	-
OUT (C),A	ED79	12	output A to I/O port (C)	-	-	-	-	-	-
OUT (C),B	ED41	12	output B to I/O port (C)	-	-	-	-	-	-
OUT (C),C	ED49	12	output C to I/O port (C)	-	-	-	-	-	-
OUT (C),D	ED51	12	output D to I/O port (C)	-	-	-	-	-	-
OUT (C),E	ED59	12	output E to I/O port (C)	-	-	-	-	-	-
OUT (C),H	ED61	12	output H to I/O port (C)	-	-	-	-	-	-
OUT (C),L	ED69	12	output L to I/O port (C)	-	-	-	-	-	-
OUT (p8),A	D3p8	11	output A to I/O port (d8)	-	-	-	-	-	-

NAREDBA	STROJNI KOD	TAKTOVA	FUNKCIONALNI OPIS NAREDBE	S	Z	H	P/V	N	C
OUTD	EDAB	16	output (HL) to I/O port (C) then decrement B and HL.	?	+	?	?	1	?
OUTI	EDA3	16	output (HL) to I/O	?	+	?	?	1	?
POP AF	F1	10	load AF from stack	+	+	+	+	+	+
POP BC	C1	10	load BC from stack	-	-	-	-	-	-
POP DE	D1	10	load DE from stack	-	-	-	-	-	-
POP HL	E1	10	load HL from stack	-	-	-	-	-	-
POP IX	DDE1	14	load IX from stack	-	-	-	-	-	-
POP IY	FDE1	14	load IY from stack	-	-	-	-	-	-
PUSH AF	F5	11	load stack from AF	-	-	-	-	-	-
PUSH BC	C5	11	load stack from BC	-	-	-	-	-	-
PUSH DE	D5	11	load stack from DE	-	-	-	-	-	-
PUSH HL	E5	11	load stack from HL	-	-	-	-	-	-
PUSH IX	DDE5	15	load stack from IX	-	-	-	-	-	-
PUSH IY	FDE5	15	load stack from IY	-	-	-	-	-	-
RES 0, (HL)	CB86	15	bit 0 of (HL) = 0	-	-	-	-	-	-
RES 0, (IX + dd)	DDCBdd86	23	bit 0 of (IX + dd) = 0	-	-	-	-	-	-
RES 0, (IY + dd)	FDCDdd86	23	bit 0 of (IY + dd) = 0	-	-	-	-	-	-
RES 0,A	CB87	8	bit 0 of A = 0	-	-	-	-	-	-
RES 0,B	CB80	8	bit 0 of B = 0	-	-	-	-	-	-
RES 0,C	CB81	8	bit 0 of C = 0	-	-	-	-	-	-
RES 0,D	CB82	8	bit 0 of D = 0	-	-	-	-	-	-
RES 0,E	CB83	8	bit 0 of E = 0	-	-	-	-	-	-
RES 0,H	CB84	8	bit 0 of H = 0	-	-	-	-	-	-
RES 0,L	CB85	8	bit 0 of L = 0	-	-	-	-	-	-
RES 1, (HL)	CB8E	15	bit 1 of (HL) = 0	-	-	-	-	-	-
RES 1, (IX + dd)	DDCBdd8E	23	bit 1 of (IX + dd) = 0	-	-	-	-	-	-
RES 1, (IY + dd)	FDCBdd8E	23	bit 1 of (IY + dd) = 0	-	-	-	-	-	-
RES 1,A	CB8F	8	bit 1 of A = 0	-	-	-	-	-	-
RES 1,B	CB88	8	bit 1 of B = 0	-	-	-	-	-	-
RES 1,C	CB89	8	bit 1 of C = 0	-	-	-	-	-	-
RES 1,D	CB8A	8	bit 1 of D = 0	-	-	-	-	-	-
RES 1,E	CB8B	8	bit 1 of E = 0	-	-	-	-	-	-
RES 1,H	CB8C	8	bit 1 of H = 0	-	-	-	-	-	-
RES 1,L	CB8D	8	bit 1 of L = 0	-	-	-	-	-	-
RES 2, (HL)	CB96	15	bit 2 of (HL) = 0	-	-	-	-	-	-
RES 2, (IX + dd)	DDCBdd96	23	bit 2 of (IX + dd) = 0	-	-	-	-	-	-
RES 2, (IY + dd)	FDCBdd96	23	bit 2 of (IY + dd) = 0	-	-	-	-	-	-
RES 2,A	CB97	8	bit 2 of A = 0	-	-	-	-	-	-
RES 2,B	CB90	8	bit 2 of B = 0	-	-	-	-	-	-
RES 2,C	CB91	8	bit 2 of C = 0	-	-	-	-	-	-
RES 2,D	CB92	8	bit 2 of D = 0	-	-	-	-	-	-
RES 2,E	CB93	8	bit 2 of E = 0	-	-	-	-	-	-
RES 2,H	CB94	8	bit 2 of H = 0	-	-	-	-	-	-
RES 2,L	CB95	8	bit 2 of L = 0	-	-	-	-	-	-
RES 3, (HL)	CB9E	15	bit 3 of (HL) = 0	-	-	-	-	-	-
RES 3, (IX + dd)	DDCBdd9E	23	bit 3 of (IX + dd) = 0	-	-	-	-	-	-
RES 3, (IY + dd)	FDCBdd9E	23	bit 3 of (IY + dd) = 0	-	-	-	-	-	-
RES 3,A	CB9F	8	bit 3 of A = 0	-	-	-	-	-	-
RES 3,B	CB98	8	bit 3 of B = 0	-	-	-	-	-	-
RES 3,C	CB99	8	bit 3 of C = 0	-	-	-	-	-	-
RES 3,D	CB9A	8	bit 3 of D = 0	-	-	-	-	-	-
RES 3,E	CB9B	8	bit 3 of E = 0	-	-	-	-	-	-
RES 3,H	CB9C	8	bit 3 of H = 0	-	-	-	-	-	-
RES 3,L	CB9D	8	bit 3 of L = 0	-	-	-	-	-	-
RES 4, (HL)	CBA6	15	bit 4 of (HL) = 0	-	-	-	-	-	-
RES 4, (IX + dd)	DDCBddA6	23	bit 4 of (IX + dd) = 0	-	-	-	-	-	-
RES 4, (IY + dd)	FDCBddA6	23	bit 4 of (IY + dd) = 0	-	-	-	-	-	-
RES 4,A	CBA7	8	bit 4 of A = 0	-	-	-	-	-	-
RES 4,B	CBA0	8	bit 4 of B = 0	-	-	-	-	-	-
RES 4,C	CBA1	8	bit 4 of C = 0	-	-	-	-	-	-
RES 4,D	CBA2	8	bit 4 of D = 0	-	-	-	-	-	-

NAREDBA	STROJNI KOD	TAKTOVA	FUNKCIONALNI OPIS NAREDBE	S	Z	H	P/V	N	C
RES 4,E	CBA3	8	bit 4 of E = 0	-	-	-	-	-	-
RES 4,H	CBA4	8	bit 4 of H = 0	-	-	-	-	-	-
RES 4,L	CBA5	8	bit 4 of L = 0	-	-	-	-	-	-
RES 5,(HL)	CBAE	15	bit 5 of (HL) = 0	-	-	-	-	-	-
RES 5,(IX + dd)	DDCBddAE	23	bit 5 of (IX + dd) = 0	-	-	-	-	-	-
RES 5,(IY + dd)	FDCBddAE	23	bit 5 of (IY + dd) = 0	-	-	-	-	-	-
RES 5,A	CBAF	8	bit 5 of A = 0	-	-	-	-	-	-
RES 5,B	CBA8	8	bit 5 of B = 0	-	-	-	-	-	-
RES 5,C	CBA9	8	bit 5 of C = 0	-	-	-	-	-	-
RES 5,D	CBAA	8	bit 5 of D = 0	-	-	-	-	-	-
RES 5,E	CBAB	8	bit 5 of E = 0	-	-	-	-	-	-
RES 5,H	CBAC	8	bit 5 of H = 0	-	-	-	-	-	-
RES 5,L	CBAD	8	bit 5 of L = 0	-	-	-	-	-	-
RES 6,(HL)	CBB6	15	bit 6 of (HL) = 0	-	-	-	-	-	-
RES 6,(IX + dd)	DDCBddB6	23	bit 6 of (IX + dd) = 0	-	-	-	-	-	-
RES 6,(IY + dd)	FDCBddB6	23	bit 6 of (IY + dd) = 0	-	-	-	-	-	-
RES 6,A	CBB7	8	bit 6 of A = 0	-	-	-	-	-	-
RES 6,B	CBB0	8	bit 6 of B = 0	-	-	-	-	-	-
RES 6,C	CBB1	8	bit 6 of C = 0	-	-	-	-	-	-
RES 6,D	CBB2	8	bit 6 of D = 0	-	-	-	-	-	-
RES 6,E	CBB3	8	bit 6 of E = 0	-	-	-	-	-	-
RES 6,H	CBB4	8	bit 6 of H = 0	-	-	-	-	-	-
RES 6,L	CBB5	8	bit 6 of L = 0	-	-	-	-	-	-
RES 7,(HL)	CBBE	15	bit 7 of (HL) = 0	-	-	-	-	-	-
RES 7,(IX + dd)	DDCBddBE	23	bit 7 of (IX + dd) = 0	-	-	-	-	-	-
RES 7,(IY + dd)	FDCBddBE	23	bit 7 of (IY + dd) = 0	-	-	-	-	-	-
RES 7,A	CBBF	8	bit 7 of A = 0	-	-	-	-	-	-
RES 7,B	CBB8	8	bit 7 of B = 0	-	-	-	-	-	-
RES 7,C	CBB9	8	bit 7 of C = 0	-	-	-	-	-	-
RES 7,D	CBBA	8	bit 7 of D = 0	-	-	-	-	-	-
RES 7,E	CBBB	8	bit 7 of E = 0	-	-	-	-	-	-
RES 7,H	CBBC	8	bit 7 of H = 0	-	-	-	-	-	-
RES 7,L	CBBD	8	bit 7 of L = 0	-	-	-	-	-	-
RET	C9	10	return	-	-	-	-	-	-
RET C	D8	5/11	return if carry	-	-	-	-	-	-
RET M	F8	5/11	return if minus	-	-	-	-	-	-
RET NC	D0	5/11	return if no carry	-	-	-	-	-	-
RET NZ	C0	5/11	return if not zero	-	-	-	-	-	-
RET P	F0	5/11	return if positive	-	-	-	-	-	-
RET PE	E8	5/11	return if parity even	-	-	-	-	-	-
RET PO	E0	5/11	return if parity odd	-	-	-	-	-	-
RET Z	C8	5/11	return if zero	-	-	-	-	-	-
RETI	ED4D	14	return from interrupt	-	-	-	-	-	-
RETN	ED45	14	return from nonmaskable interrupt	-	-	-	-	-	-
RL (HL)	CB16	15	rotate (HL) left through carry	+	+	0	P	0	+
RL (IX + dd)	DDCBdd16	23	rotate (IX + dd) left through carry	+	+	0	P	0	+
RL (IY + dd)	FDCBdd16	23	rotate (IY + dd) left through carry	+	+	0	P	0	+
RL A	CB17	8	rotate A left through carry	+	+	0	P	0	+
RL B	CB10	8	rotate B left through carry	+	+	0	P	0	+
RL C	CB11	8	rotate C left through carry	+	+	0	P	0	+
RL D	CB12	8	rotate D left through carry	+	+	0	P	0	+
RL E	CB13	8	rotate E left through carry	+	+	0	P	0	+
RL H	CB14	8	rotate H left through carry	+	+	0	P	0	+
RL L	CB15	8	rotate L left through carry	+	+	0	P	0	+
RLA	17	4	rotate A left through carry	-	-	0	-	0	+
RLC (HL)	CB06	15	rotate (HL) left	+	+	0	P	0	+
RLC (IX + dd)	DDCBdd06	23	rotate (IX + dd) left	+	+	0	P	0	+
RLC (IY + dd)	FDCBdd06	23	rotate (IY + dd) left	+	+	0	P	0	+
RLC A	CB07	8	rotate A left	+	+	0	P	0	+
RLC B	CB00	8	rotate B left	+	+	0	P	0	+
RLC C	CB01	8	rotate C left	+	+	0	P	0	+
RLC D	CB02	8	rotate D left	+	+	0	P	0	+

NAREDBA	STROJNI KOD	TAKTOVA	FUNKCIONALNI OPIS NAREDBE	S	Z	H	P/V	N	C
RLC E	CB03	8	rotate E left	+	+	0	P	0	+
RLC H	CB04	8	rotate H left	+	+	0	P	0	+
RLC L	CB05	8	rotate L left	+	+	0	P	0	+
RLCA	07	4	rotate A left	-	-	0	-	0	+
RLD	ED6F	8	rotate left digit	+	+	0	P	0	+
RR (HL)	CB1E	15	rotate (HL) right through carry	+	+	0	P	0	+
RR (IX + dd)	DDCBdd1E	23	rotate (IX + dd) left through carry	+	+	0	P	0	+
RR (IY + dd)	FDCBdd1E	23	rotate (IY + dd) left through carry	+	+	0	P	0	+
RR A	CB1F	8	rotate A right through carry	+	+	0	P	0	+
RR B	CB18	8	rotate B right through carry	+	+	0	P	0	+
RR C	CB19	8	rotate C right through carry	+	+	0	P	0	+
RR D	CB1A	8	rotate D right through carry	+	+	0	P	0	+
RR E	CB1B	8	rotate E right through carry	+	+	0	P	0	+
RR H	CB1C	8	rotate H right through carry	+	+	0	P	0	+
RR L	CB1D	8	rotate L right through carry	+	+	0	P	0	+
RRA	1F	4	rotate A right through carry	-	-	0	-	0	+
RRC (HL)	CB0E	15	rotate (HL) right	+	+	0	P	0	+
RRC (IX + dd)	DDCBdd0E	23	rotate (IX + dd) right	+	+	0	P	0	+
RRC (IY + dd)	FDCBdd0E	23	rotate (IY + dd) right	+	+	0	P	0	+
RRC A	CB0F	8	rotate A right	+	+	0	P	0	+
RRC B	CB08	8	rotate B right	+	+	0	P	0	+
RRC C	CB09	8	rotate C right	+	+	0	P	0	+
RRC D	CB0A	8	rotate D right	+	+	0	P	0	+
RRC E	CB0B	8	rotate E right	+	+	0	P	0	+
RRC H	CB0C	8	rotate H right	+	+	0	P	0	+
RRC L	CB0D	8	rotate L right	+	+	0	P	0	+
RRC A	0F	4	rotate A right	-	0	-	0	+	-
RRD	ED67	18	rotate digit right	+	+	0	P	0	-
RST 00H	C7	11	CALL 0000H	-	-	-	-	-	-
RST 08H	CF	11	CALL 0008H	-	-	-	-	-	-
RST 10H	D7	11	CALL 0010H	-	-	-	-	-	-
RST 18H	DF	11	CALL 0018H	-	-	-	-	-	-
RST 20H	E7	11	CALL 0020H	-	-	-	-	-	-
RST 28H	EF	11	CALL 0028H	-	-	-	-	-	-
RST 30H	F7	11	CALL 0030H	-	-	-	-	-	-
RST 38H	FF	11	CALL 0038H	-	-	-	-	-	-
SBC A, (HL)	9E	7	A = A - (HL) - Cy	+	+	+	V	1	+
SBC A, (IX + dd)	DD9Edd	19	A = A - (IX + dd) - Cy	+	+	+	V	1	+
SBC A, (IY + dd)	FD9Edd	19	A = A - (IY + dd) - Cy	+	+	+	V	1	+
SBC A,A	9F	4	A = A - A - Cy	+	+	+	V	1	+
SBC A,B	98	4	A = A - B - Cy	+	+	+	V	1	+
SBC A,C	99	4	A = A - C - Cy	+	+	+	V	1	+
SBC A,D	9A	4	A = A - D - Cy	+	+	+	V	1	+
SBC A,E	9B	4	A = A - E - Cy	+	+	+	V	1	+
SBC A,H	9C	4	A = A - H - Cy	+	+	+	V	1	+
SBC A,L	9D	4	A = A - L - Cy	+	+	+	V	1	+
SBC A,d8	DEd8	7	A = A - d8 - Cy	+	+	+	V	1	+
SBC HL,BC	ED42	15	HL = HL - BC - Cy	+	+	+	V	1	+
SBC HL,DE	ED52	15	HL = HL - DE - Cy	+	+	+	V	1	+
SBC HL,HL	ED62	15	HL = HL - HL - Cy	+	+	+	V	1	+
SBC HL,SP	ED72	15	HL = HL - SP - Cy	+	+	+	V	1	+
SCF	37	4	set carry	-	-	0	-	0	1
SET 0, (HL)	CBC6	15	bit 0 of (HL) = 1	-	-	-	-	-	-
SET 0, (IX + dd)	DDCBddC6	23	bit 0 of (IX + dd) = 1	-	-	-	-	-	-
SET 0, (IY + dd)	FDCBddC6	23	bit 0 of (IY + dd) = 1	-	-	-	-	-	-
SET 0,A	CBC7	8	bit 0 of A = 1	-	-	-	-	-	-
SET 0,B	CBC0	8	bit 0 of B = 1	-	-	-	-	-	-
SET 0,C	CBC1	8	bit 0 of C = 1	-	-	-	-	-	-
SET 0,D	CBC2	8	bit 0 of D = 1	-	-	-	-	-	-
SET 0,E	CBC3	8	bit 0 of E = 1	-	-	-	-	-	-
SET 0,H	CBC4	8	bit 0 of H = 1	-	-	-	-	-	-
SET 0,L	CBC5	8	bit 0 of L = 1	-	-	-	-	-	-

NAREDBA	STROJNI KOD	TAKTOVA	FUNKCIONALNI OPIS NAREDBE	S	Z	H	P/V	N	C
SET 1, (HL)	CBCE	15	bit 1 of (HL) = 1	-	-	-	-	-	-
SET 1, (IX + dd)	DDCBddCE	23	bit 1 of (IX + dd) = 1	-	-	-	-	-	-
SET 1, (IY + dd)	FDCBddCE	23	bit 1 of (IY + dd) = 1	-	-	-	-	-	-
SET 1,A	CBCF	8	bit 1 of A = 1	-	-	-	-	-	-
SET 1,B	CBC8	8	bit 1 of B = 1	-	-	-	-	-	-
SET 1,C	CBC9	8	bit 1 of C = 1	-	-	-	-	-	-
SET 1,D	CBCA	8	bit 1 of D = 1	-	-	-	-	-	-
SET 1,E	CBCB	8	bit 1 of E = 1	-	-	-	-	-	-
SET 1,H	CBCC	8	bit 1 of H = 1	-	-	-	-	-	-
SET 1,L	CBCD	8	bit 1 of L = 1	-	-	-	-	-	-
SET 2, (HL)	CBD6	15	bit 2 of (HL) = 1	-	-	-	-	-	-
SET 2, (IX + dd)	DDCBddD6	23	bit 2 of (IX + dd) = 1	-	-	-	-	-	-
SET 2, (IY + dd)	FDCBddD6	23	bit 2 of (IY + dd) = 1	-	-	-	-	-	-
SET 2,A	CBD7	8	bit 2 of A = 1	-	-	-	-	-	-
SET 2,B	CBD0	8	bit 2 of B = 1	-	-	-	-	-	-
SET 2,C	CBD1	8	bit 2 of C = 1	-	-	-	-	-	-
SET 2,D	CBD2	8	bit 2 of D = 1	-	-	-	-	-	-
SET 2,E	CBD3	8	bit 2 of E = 1	-	-	-	-	-	-
SET 2,H	CBD4	8	bit 2 of H = 1	-	-	-	-	-	-
SET 2,L	CBD5	8	bit 2 of L = 1	-	-	-	-	-	-
SET 3, (HL)	CBDE	15	bit 3 of (HL) = 1	-	-	-	-	-	-
SET 3, (IX + dd)	DDCBddDE	23	bit 3 of (IX + dd) = 1	-	-	-	-	-	-
SET 3, (IY + dd)	FDCBddDE	23	bit 3 of (IY + dd) = 1	-	-	-	-	-	-
SET 3,A	CBDF	8	bit 3 of A = 1	-	-	-	-	-	-
SET 3,B	CBD8	8	bit 3 of B = 1	-	-	-	-	-	-
SET 3,C	CBD9	8	bit 3 of C = 1	-	-	-	-	-	-
SET 3,D	CBDA	8	bit 3 of D = 1	-	-	-	-	-	-
SET 3,E	CBDB	8	bit 3 of E = 1	-	-	-	-	-	-
SET 3,H	CBDC	8	bit 3 of H = 1	-	-	-	-	-	-
SET 3,L	CBDD	8	bit 3 of L = 1	-	-	-	-	-	-
SET 4, (HL)	CBE6	15	bit 4 of (HL) = 1	-	-	-	-	-	-
SET 4, (IX + dd)	DDCBddE6	23	bit 4 of (IX + dd) = 1	-	-	-	-	-	-
SET 4, (IY + dd)	FDCBddE6	23	bit 4 of (IY + dd) = 1	-	-	-	-	-	-
SET 4,A	CBE7	8	bit 4 of A = 1	-	-	-	-	-	-
SET 4,B	CBE0	8	bit 4 of B = 1	-	-	-	-	-	-
SET 4,C	CBE1	8	bit 4 of C = 1	-	-	-	-	-	-
SET 4,D	CBE2	8	bit 4 of D = 1	-	-	-	-	-	-
SET 4,E	CBE3	8	bit 4 of E = 1	-	-	-	-	-	-
SET 4,H	CBE4	8	bit 4 of H = 1	-	-	-	-	-	-
SET 4,L	CBE5	8	bit 4 of L = 1	-	-	-	-	-	-
SET 5, (HL)	CBEE	15	bit 5 of (HL) = 1	-	-	-	-	-	-
SET 5, (IX + dd)	DDCBddEE	23	bit 5 of (IX + dd) = 1	-	-	-	-	-	-
SET 5, (IY + dd)	FDCBddEE	23	bit 5 of (IY + dd) = 1	-	-	-	-	-	-
SET 5,A	CBEF	8	bit 5 of A = 1	-	-	-	-	-	-
SET 5,B	CBE8	8	bit 5 of B = 1	-	-	-	-	-	-
SET 5,C	CBE9	8	bit 5 of C = 1	-	-	-	-	-	-
SET 5,D	CBEA	8	bit 5 of D = 1	-	-	-	-	-	-
SET 5,E	CBEB	8	bit 5 of E = 1	-	-	-	-	-	-
SET 5,H	CBEC	8	bit 5 of H = 1	-	-	-	-	-	-
SET 5,L	CBED	8	bit 5 of L = 1	-	-	-	-	-	-
SET 6, (HL)	CBF6	15	bit 6 of (HL) = 1	-	-	-	-	-	-
SET 6, (IX + dd)	DDCBddF6	23	bit 6 of (IX + dd) = 1	-	-	-	-	-	-
SET 6, (IY + dd)	FDCBddF6	23	bit 6 of (IY + dd) = 1	-	-	-	-	-	-
SET 6,A	CBF7	8	bit 6 of A = 1	-	-	-	-	-	-
SET 6,B	CBF0	8	bit 6 of B = 1	-	-	-	-	-	-
SET 6,C	CBF1	8	bit 6 of C = 1	-	-	-	-	-	-
SET 6,D	CBF2	8	bit 6 of D = 1	-	-	-	-	-	-
SET 6,E	CBF3	8	bit 6 of E = 1	-	-	-	-	-	-
SET 6,H	CBF4	8	bit 6 of H = 1	-	-	-	-	-	-
SET 6,L	CBF5	8	bit 6 of L = 1	-	-	-	-	-	-
SET 7, (HL)	CBFE	15	bit 7 of (HL) = 1	-	-	-	-	-	-
SET 7, (IX + dd)	DDCBddFE	23	bit 7 of (IX + dd) = 1	-	-	-	-	-	-

NAREDBA	STROJNI KOD	TAKTOVA	FUNKCIONALNI OPIS NAREDBE	S	Z	H	P/V	N	C
SET 7, (IY + dd)	FDCBddFE	23	bit 7 of (IY + dd) = 1	-	-	-	-	-	-
SET 7,A	CBFF	8	bit 7 of A = 1	-	-	-	-	-	-
SET 7,B	CBF8	8	bit 7 of B = 1	-	-	-	-	-	-
SET 7,C	CBF9	8	bit 7 of C = 1	-	-	-	-	-	-
SET 7,D	CBFA	8	bit 7 of D = 1	-	-	-	-	-	-
SET 7,E	CBFB	8	bit 7 of E = 1	-	-	-	-	-	-
SET 7,H	CBFC	8	bit 7 of H = 1	-	-	-	-	-	-
SET 7,L	CBFD	8	bit 7 of L = 1	-	-	-	-	-	-
SLA (HL)	CB26	15	shift (HL) left	+	+	0	P	0	+
SLA (IX + dd)	DDCBdd26	23	shift (IX + dd) left	+	+	0	P	0	+
SLA (IY + dd)	FDCBdd26	23	shift (IY + dd) left	+	+	0	P	0	+
SLA A	CB27	8	shift A left	+	+	0	P	0	+
SLA B	CB20	8	shift B left	+	+	0	P	0	+
SLA C	CB21	8	shift C left	+	+	0	P	0	+
SLA D	CB22	8	shift D left	+	+	0	P	0	+
SLA E	CB23	8	shift E left	+	+	0	P	0	+
SLA H	CB24	8	shift H left	+	+	0	P	0	+
SLA L	CB25	8	shift L left	+	+	0	P	0	+
SRA (HL)	CB2E	15	arithmetic shift (HL) right	+	+	0	P	0	+
SRA (IX + dd)	DDCBdd2E	23	arithmetic shift (IX+dd) right	+	+	0	P	0	+
SRA (IY + dd)	FDCBdd2E	23	arithmetic shift (IY + dd) right	+	+	0	P	0	+
SRA A	CB2F	8	arithmetic shift A right	+	+	0	P	0	+
SRA B	CB28	8	arithmetic shift B right	+	+	0	P	0	+
SRA C	CB29	8	arithmetic shift C right	+	+	0	P	0	+
SRA D	CB2A	8	arithmetic shift D right	+	+	0	P	0	+
SRA E	CB2B	8	arithmetic shift E right	+	+	0	P	0	+
SRA H	CB2C	8	arithmetic shift H right	+	+	0	P	0	+
SRA L	CB2D	8	arithmetic shift L right	+	+	0	P	0	+
SRL (HL)	CB3E	15	shift (HL) right	+	+	0	P	0	+
SRL (IX + dd)	DDCBdd3E	23	shift (IX + dd) right	+	+	0	P	0	+
SRL (IY + dd)	FDCBdd3E	23	shift (IY + dd) right	+	+	0	P	0	+
SRL A	CB3F	8	shift A right	+	+	0	P	0	+
SRL B	CB38	8	shift B right	+	+	0	P	0	+
SRL C	CB39	8	shift C right	+	+	0	P	0	+
SRL D	CB3A	8	shift D right	+	+	0	P	0	+
SRL E	CB3B	8	shift E right	+	+	0	P	0	+
SRL H	CB3C	8	shift H right	+	+	0	P	0	+
SRL L	CB3D	8	shift L right	+	+	0	P	0	+
SUB (HL)	96	7	A = A - (HL)	+	+	+	V	1	+
SUB (IX + dd)	DD96dd	19	A = A - (IX+dd)	+	+	+	V	1	+
SUB (IY + dd)	FD96dd	19	A = A - (IY+dd)	+	+	+	V	1	+
SUB A	97	4	A = A-A	0	1	0	1	1	0
SUB B	90	4	A = A-B	+	+	+	V	1	+
SUB C	91	4	A = A-C	+	+	+	V	1	+
SUB D	92	4	A = A - D	+	+	+	V	1	+
SUB E	93	4	A = A - E	+	+	+	V	1	+
SUB H	94	4	A = A - H	+	+	+	V	1	+
SUB L	95	4	A = A - L	+	+	+	V	1	+
SUB d8	D6d8	7	A = A - d8	+	+	+	V	1	+
XOR (HL)	AE	7	A = A xor (HL)	+	+	0	P	0	0
XOR (IX + dd)	DDAEdd	19	A = A xor (IX + dd)	+	+	0	P	0	0
XOR (IY + dd)	FDAEd	19	A = A xor (IY + dd)	+	+	0	P	0	0
XOR A	AF	4	A = A xor A	0	1	0	1	0	0
XOR B	A8	4	A = A xor B	+	+	0	P	0	0
XOR C	A9	4	A = A xor C	+	+	0	P	0	0
XOR D	AA	4	A = A xor D	+	+	0	P	0	0
XOR E	AB	4	A = A xor E	+	+	0	P	0	0
XOR H	AC	4	A = A xor H	+	+	0	P	0	0
XOR L	AD	4	A = A xor L	+	+	0	P	0	0
XOR d8	EEd8	7	A = A xor d8	+	+	0	P	0	0

B. PRILOG: ASCII tablica znakova

Tab. B. 1. ASCII tablica znakova od 0 do 127.

Dec	Hex	Oct	Char	Opis
0	0	0		null
1	1	1		start of heading
2	2	2		start of text
3	3	3		end of text
4	4	4		end of transmission
5	5	5		enquiry
6	6	6		acknowledge
7	7	7		bell
8	8	10		backspace
9	9	11		horizontal tab
10	A	12		new line
11	B	13		vertical tab
12	C	14		new page
13	D	15		carriage return
14	E	16		shift out
15	F	17		shift in
16	10	20		data link escape
17	11	21		device control 1
18	12	22		device control 2
19	13	23		device control 3
20	14	24		device control 4
21	15	25		negative acknowledge
22	16	26		synchronous idle
23	17	27		end of trans. block
24	18	30		cancel
25	19	31		end of medium
26	1A	32		substitute
27	1B	33		escape
28	1C	34		file separator
29	1D	35		group separator
30	1E	36		record separator
31	1F	37		unit separator
32	20	40		space
33	21	41	!	
34	22	42	"	
35	23	43	#	
36	24	44	\$	
37	25	45	%	
38	26	46	&	
39	27	47	'	
40	28	50	(
41	29	51)	
42	2A	52	*	
43	2B	53	+	
44	2C	54	,	
45	2D	55	-	
46	2E	56	.	
47	2F	57	/	
48	30	60	0	
49	31	61	1	
50	32	62	2	
51	33	63	3	
52	34	64	4	
53	35	65	5	
54	36	66	6	
55	37	67	7	
56	38	70	8	
57	39	71	9	
58	3A	72	:	
59	3B	73	;	
60	3C	74	<	
61	3D	75	=	
62	3E	76	>	
63	3F	77	?	
64	40	100	@	
65	41	101	A	
66	42	102	B	
67	43	103	C	
68	44	104	D	
69	45	105	E	
70	46	106	F	
71	47	107	G	
72	48	110	H	
73	49	111	I	
74	4A	112	J	
75	4B	113	K	
76	4C	114	L	
77	4D	115	M	
78	4E	116	N	
79	4F	117	O	
80	50	120	P	
81	51	121	Q	
82	52	122	R	
83	53	123	S	
84	54	124	T	
85	55	125	U	
86	56	126	V	
87	57	127	W	
88	58	130	X	
89	59	131	Y	
90	5A	132	Z	
91	5B	133	[
92	5C	134	\	
93	5D	135]	
94	5E	136	^	
95	5F	137	_	
96	60	140	`	
97	61	141	a	
98	62	142	b	
99	63	143	c	
100	64	144	d	
101	65	145	e	
102	66	146	f	
103	67	147	g	
104	68	150	h	
105	69	151	i	
106	6A	152	j	
107	6B	153	k	
108	6C	154	l	
109	6D	155	m	
110	6E	156	n	
111	6F	157	o	
112	70	160	p	
113	71	161	q	
114	72	162	r	
115	73	163	s	
116	74	164	t	
117	75	165	u	
118	76	166	v	
119	77	167	w	
120	78	170	x	
121	79	171	y	
122	7A	172	z	
123	7B	173	{	
124	7C	174		
125	7D	175	}	
126	7E	176	~	
127	7F	177	DEL	

ASCII tablica (Tab. B. 1, Tab. B. 2) sadrži niz znakova i njima pridružen broj. U tablici (Tab. B. 1) je definiran brojčani interval za mala slova (97-122) i velika slova (65-90). Malo i veliko slovo se razlikuju za 32 u ASCII vrijednosti. U tablici (Tab. B. 1) je definiran brojčani interval za brojeve (48-57). Dekadska i ASCII vrijednost broja se razlikuju za 48.

Tab. B. 2. ASCII tablica znakova od 128 do 255.

Dec	Oct	Hex	Char	Dec	Oct	Hex	Char	Dec	Oct	Hex	Char
128	200	80	€	171	253	AB	«	214	326	D6	Ö
129	201	81		172	254	AC	»	215	327	D7	×
130	202	82	,	173	255	AD		216	330	D8	Ø
131	203	83	f	174	256	AE	®	217	331	D9	Ù
132	204	84	„	175	257	AF	—	218	332	DA	Ú
133	205	85	...	176	260	B0	°	219	333	DB	Û
134	206	86	†	177	261	B1	±	220	334	DC	Ü
135	207	87	‡	178	262	B2	²	221	335	DD	Ý
136	210	88	^	179	263	B3	³	222	336	DE	Þ
137	211	89	‰	180	264	B4	´	223	337	DF	ß
138	212	8A	Š	181	265	B5	µ	224	340	E0	à
139	213	8B	‹	182	266	B6	¶	225	341	E1	á
140	214	8C	Œ	183	267	B7	·	226	342	E2	â
141	215	8D		184	270	B8	,	227	343	E3	ã
142	216	8E	Ž	185	271	B9	¹	228	344	E4	ä
143	217	8F		186	272	BA	º	229	345	E5	å
144	220	90		187	273	BB	»	230	346	E6	æ
145	221	91	‘	188	274	BC	¼	231	347	E7	ç
146	222	92	’	189	275	BD	½	232	350	E8	è
147	223	93	“	190	276	BE	¾	233	351	E9	é
148	224	94	”	191	277	BF	¿	234	352	EA	ê
149	225	95	•	192	300	C0	À	235	353	EB	ë
150	226	96	—	193	301	C1	Á	236	354	EC	ì
151	227	97	—	194	302	C2	Â	237	355	ED	í
152	230	98	~	195	303	C3	Ã	238	356	EE	î
153	231	99	™	196	304	C4	Ä	239	357	EF	ï
154	232	9A	š	197	305	C5	Å	240	360	F0	ð
155	233	9B	›	198	306	C6	Æ	241	361	F1	ñ
156	234	9C	œ	199	307	C7	Ç	242	362	F2	ò
157	235	9D		200	310	C8	È	243	363	F3	ó
158	236	9E	ž	201	311	C9	É	244	364	F4	ô
159	237	9F	ÿ	202	312	CA	Ê	245	365	F5	õ
160	240	A0		203	313	CB	Ë	246	366	F6	ö
161	241	A1	ı	204	314	CC	Ì	247	367	F7	÷
162	242	A2	ø	205	315	CD	Í	248	370	F8	ø
163	243	A3	£	206	316	CE	Î	249	371	F9	ù
164	244	A4	¤	207	317	CF	Ï	250	372	FA	ú
165	245	A5	¥	208	320	D0	Ð	251	373	FB	û
166	246	A6	ı	209	321	D1	Ñ	252	374	FC	ü
167	247	A7	§	210	322	D2	Ò	253	375	FD	ý
168	250	A8	¨	211	323	D3	Ó	254	376	FE	þ
169	251	A9	©	212	324	D4	Ô	255	377	FF	ÿ
170	252	AA	ª	213	325	D5	Õ				

C. PRILOG: PRIRUČNIK ZA PODEŠAVANJE RADA PERIFERNIH SKLOPOVA MIKROPROCESORA Z80

PODEŠAVANJE NAČINA RADA PIO SKLOPA:

Postavljanje Interrupt Vektora

V7	V6	V5	V4	V3	V2	V1	0
----	----	----	----	----	----	----	---

ODREĐUJU UPRAVLJAČKU RIJEČ:
POSTAVLJANJE INTERRUPT VEKTORA

V₇ – V₁ KORISNIK DEFINIRA
VRIJEDNOST INTERRUPT VEKTOR

Postavljanje Mod-a rada

D7	D6	X	X	1	1	1	1
----	----	---	---	---	---	---	---

ODREĐUJU UPRAVLJAČKU RIJEČ:
POSTAVLJANJE MOD-A RADA

ZANEMARUJU SE

ODABIR MOD-A RADA
0 0 MODE 0: IZLAZNI PROT
0 1 MODE 1: ULAZNI PORT
1 0 MODE 2: DVOSMJERNI *
1 1 MODE 3: BIT UPRAVLJAČKI **

* MODE 2 JE MOGUĆ SAMO ZA KANAL A

** AKO JE ODABRAN MODE 3
SLIJEDEĆA RIJEČ MORA BITI I/O REGISTAR
I/O registar - određuje koji je bit ulazni a koji izlazni

I/O registar

D7	D6	D5	D4	D3	D2	D1	D0
----	----	----	----	----	----	----	----

0 POSTAVLJA BIT KAO IZLAZNI
1 POSTAVLJA BIT KAO ULAZNI

Upravljanje sa Interrupt-om

D7	D6	D5	D4	0	1	1	1
----	----	----	----	---	---	---	---

ODREĐUJU UPRAVLJAČKU RIJEČ:
UPRAVLJANJE SA INTERRUPT-OM

D₄ = 0 NE SLIJEDE RIJEČ MASKE
D₄ = 1 SLIJEDE RIJEČ MASKE *

D₅ = 0 AKTIVNO NISKO LOGIČKO STANJE
D₅ = 1 AKTIVNO VISOKO LOGIČKO STANJE *

D₆ = 0 "ILI" FUNKCIJA BITOVA MASKE
D₆ = 1 "I" FUNKCIJA BITOVA MASKE *

D₇ = 0 INTERRUPT ONEMOGUĆEN
D₇ = 1 INTERRUPT OMOGUĆEN

* Koriste se samo u MODE 3, tj. bit upravljačkom načinu rada.

Ako je postavljen bit "slijedi riječ maske", slijedeća upravljačka riječ mora biti "maska":

Maska

D7	D6	D5	D4	D3	D2	D1	D0
----	----	----	----	----	----	----	----

D0 - D7 BITOVI MASKE,
OMOGUĆUJE SE GENERIRANJE
INTERRUPTA BITOVIMA KOJIMA
JE BIT MASKE POSTAVLJEN NA 0

Omogućavanje i onemogućavanje interrupt-a

D7	X	X	X	0	0	1	1
----	---	---	---	---	---	---	---

ODREĐUJU UPRAVLJAČKU RIJEČ:
UPRAVLJANJE INTERRUPT-OM

ZANEMARUJU SE

D₇ = 0 INTERRUPT ONEMOGUĆEN
D₇ = 1 INTERRUPT OMOGUĆEN

PODEŠAVANJE NAČINA RADA CTC SKLOPA:

Upravljački registar CTC kanala

D7	D6	D5	D4	D3	D2	D1	1
----	----	----	----	----	----	----	---

ODREĐUJE UPRAVLJAČKU RIJEČ
ILI PREKIDNI VEKTOR
0 = VECTOR
1 = CONTROL

REAGIRANJE NA RESET SIGNAL
0 = NASTAVI DALJE SA RADOM
1 = SOFTVERSKI RESET

VREMENSKA KONSTANTA
0 = VREMENSKA KONSTANTA NE SLIJEDE
1 = VREMENSKA KONSTANTA SLIJEDE

VREMENSKI OKIDAČ *
0 = AUTOMATSKI OKIDA KADA JE
VREMENSKA KONSTANTA DOSEGNUTA
1 = CLK/TRG PULS POKREĆE VREMENSKI SKLOP

ODABIR AKTIVNOG BRIDA
CLK/TRG SIGNALA
0 = PADAJUĆI BRID
1 = RASTUĆI BRID

VRIJEDNOST DJELITELJA *
0 = VRIJEDNOST 16
1 = VRIJEDNOST 256

ODREĐIVANJE MOD-A RADA
0 = VREMENSKI MOD
1 = BROJAČKI MOD

INTERRUPT
0 = ONEMOGUĆI INTERRUPT (DI)
1 = OMOGUĆI INTERRUPT (EI)

* SAMO ZA VREMENSKI MOD

Registar Prekidnog Vektora

D7	D6	D5	D4	D3	X	X	0
----	----	----	----	----	---	---	---

ODREĐUJE UPRAVLJAČKU RIJEČ
ILI PREKIDNI VEKTOR
0 = VECTOR
1 = CONTROL

ODABIR KANALA
0 0 = KANAL 0
0 1 = KANAL 1
1 0 = KANAL 2
1 1 = KANAL 3

V₇ – V₃ KORISNIČKI DEFINIRANA
VRIJEDNOST INTERRUPT VEKTORA

Vremenska konstanta

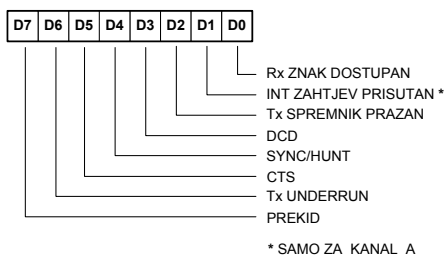
D7	D6	D5	D4	D3	D2	D1	D0
----	----	----	----	----	----	----	----

TC7
TC6
TC5
TC4

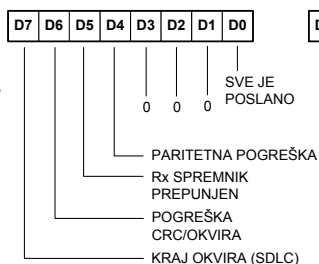
TC0
TC1
TC2
TC3

PODEŠAVANJE NAČINA RADA SIO SKLOPA:

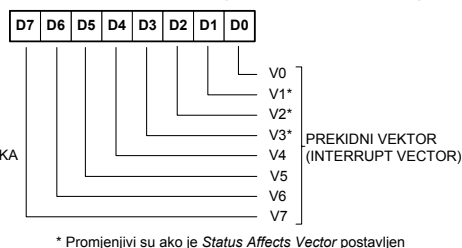
READ REGISTER 0



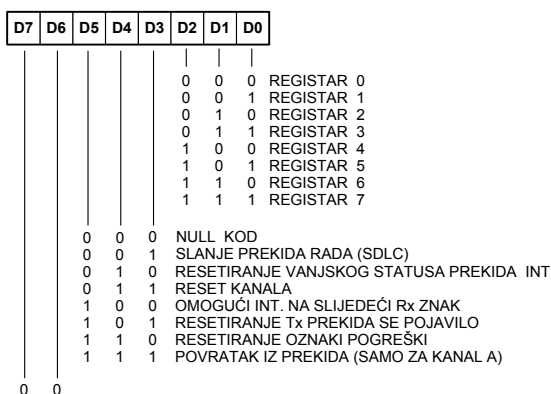
READ REGISTER 1



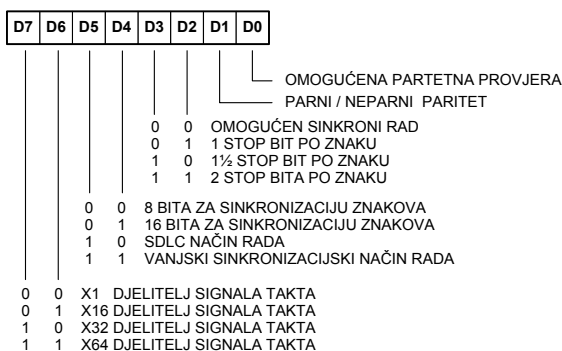
READ REGISTER 2 (SAMO ZA KANAL B)



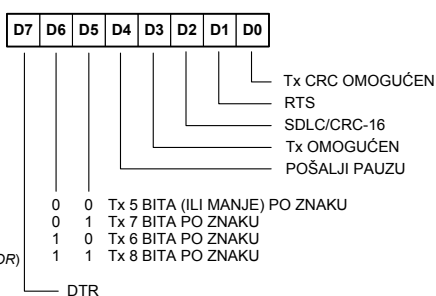
WRITE REGISTER 0



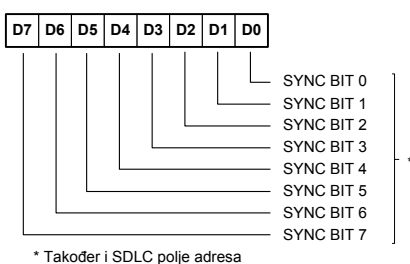
WRITE REGISTER 4



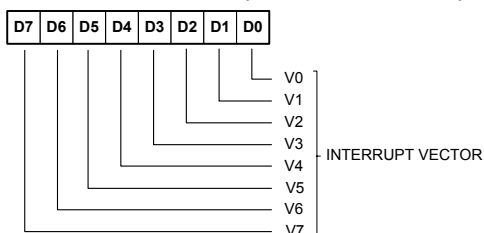
WRITE REGISTER 5



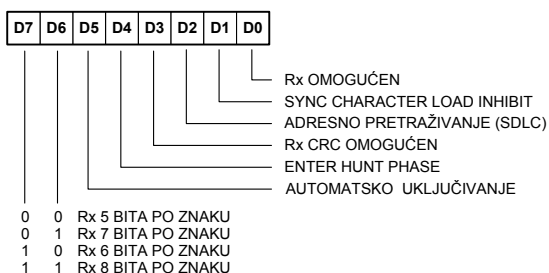
WRITE REGISTER 6



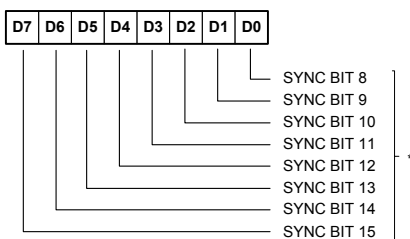
WRITE REGISTER 2 (SAMO ZA KANAL B)



WRITE REGISTER 3



WRITE REGISTER 7



* Za SDLC treba biti isprogramiran na 01111110 za prepoznavanje zastavica