

Mnemonic	Function	Notes	N	Z	V	C	Opcode (Octal)											
							F	E	D	C	B	A	9	8	7	6	5	4
HALT	Stop		----	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WAIT	Stop until interrupt		----	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
RESET	Reset all IO devices		----	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
NOP	NoOp		----	0	0	0	0	2	4	0								0
CLR{B}	Set to zero		0100	0	0	5	0	D	D									D
INC{B}	Add 1		***_	0	0	5	2	D	D									D
DEC{B}	Sub 1		***_	0	0	5	3	D	D									D
ADC{B}	Add with carry		****	0	0	5	5	D	D									D
SBC{B}	Subtract with Carry		****	0	0	5	6	D	D									D
TST{B}	Set Condition Codes		**00	0	0	5	7	D	D									D
NEG{B}	Negate		****	0	0	5	4	D	D									D
COM{B}	Ones compliment		**01	0	0	5	1	D	D									D
ROR{B}	Rotate Right (through Carry)		****	0	0	6	0	D	D									D
ROL{B}	Rotate Left (through Carry)		****	0	0	6	1	D	D									D
ASR{B}	Arithmetic shift Right		****	0	0	6	2	D	D									D
ASL{B}	Arithmetic shift Left		****	0	0	6	3	D	D									D
SWAB	Swap Bytes in a word		***0	0	0	0	3	D	D									D
SXT	Sign Extend		-*0-	0	0	6	7	D	D									D
MUL	Multiply		**0*	0	7	0	R	S	S									S
DIV	Divide		****	0	7	1	R	S	S									S
ASH	Arithmetic shift (by val in reg)		****	0	7	2	R	S	S									S
ASHC	Arithmetic shift combined		****	0	7	3	R	S	S									S
XOR	Flip bits		**0-	0	7	4	R	S	S									S
MOV{B}	Move			B	1	S	S	D	D									D
ADD	Add			0	6	S	S	D	D									D
SUB	Subtract			1	6	S	S	D	D									D
CMP{B}	Compare (effective -)			B	2	S	S	D	D									D
BIS{B}	Bit Set (OR)			B	5	S	S	D	D									D
BIC{B}	Bit Clear (for AND use with COM to flip bits)			B	4	S	S	D	D									D
BIT{B}	Bit Test (like AND but doesn't alter dest)			B	3	S	S	D	D									D
BR	Branch Always			0	0	0	1	B	B	B	B							B
BNE	Branch Not Equal	Z=0		0	0	1	0	B	B	B	B							B
BEQ	Branch Equal	Z=1		0	0	1	1	B	B	B	B							B
BPL	Branch if plus	N=0		1	0	0	0	B	B	B	B							B
BMI	Branch if minus	N=1		1	0	0	1	B	B	B	B							B
BVC	Branch if Overflow Clear	V=0		1	0	2	0	B	B	B	B							B
BVS	Branch if Overflow Set	V=1		1	0	2	1	B	B	B	B							B
BHIS	Branch if higher or same	C=0		1	0	3	0	B	B	B	B							B
BCC	Branch if carry clear	C=0		1	0	3	0	B	B	B	B							B
BLO	Branch if lower	C=1		1	0	3	1	B	B	B	B							B
BCS	Branch if carry set	C=1		1	0	3	1	B	B	B	B							B
BGE	Branch if greater than or equal to	N xor V=0		0	0	2	0	B	B	B	B							B
BLT	Branch if less than	N xor V=1		0	0	2	1	B	B	B	B							B
BGT	Branch if greater than	not (N xor V)=0		0	0	3	0	B	B	B	B							B
BLE	Branch on less than or equal to	not (N xor V)=1		0	0	3	1	B	B	B	B							B
BHI	Branch on higher than	C not Z =0		1	0	1	0	B	B	B	B							B
BLOS	Branch on lower than or same as	C not Z = 1		1	0	1	1	B	B	B	B							B
JMP	Jump			0	0	0	1	A	A									A
SOB	Subtract 1 and branch			0	7	7	R	N	N									N
JSR r,Label	Jump to subroutine			0	0	4	R	A	A									A
RTS r	Return from subroutine			0	0	0	2	0	R									R
RTI	Return from interrupt/trap			0	0	0	0	0	2									2
TRAP	Trap	T>=400		1	0	4	T	T	T									T
BPT	Breakpoint trap			0	0	0	0	0	3									3
IOT	I/O Trap			0	0	0	0	0	4									4
EMT	Emulator Trap	T<=400		1	0	4	T	T	T									T
RTT	Return from trace trap			0	0	0	0	0	6									6
SPL	Set priority level			0	0	0	2	3	N									N
-	Clear Multiple			0	0	0	2	1	0	N	Z	V	C					C
CLC	Clear Carry flag	C=0		0	0	0	2	4	1									1
CLV	Clear Overflow flag	V=0		0	0	0	2	4	2									2
CLZ	Clear Zero flag	Z=0		0	0	0	2	4	4									4
CLN	Clear Negative flag	N=0		0	0	0	2	5	0									0
CCC	Clear Condition codes	All=0		0	0	0	2	5	7									7
-	Set Multiple			0	0	0	2	1	1	N	Z	V	C					C
SEC	Set Carry flag	C=1		0	0	0	2	6	1									1
SEV	Set Overflow flag	V=1		0	0	0	2	6	2									2
SEZ	Set Zero flag	Z=1		0	0	0	2	6	4									4
SEN	Set Negative flag	N=1		0	0	0	2	7	0									0
SCC	Set condition codes	All=1		0	0	0	2	7	7									7

{B}=Byte (0=word / 1 = Byte)

1 4 2 1 4 2 1 4 2 1 4 2 1 4 2 1 4 2 1