

Opcode	Syntax	Selection Criteria
ADC	'#' expr	
ADC	expr	DIRECT
ADC	expr	EXTENDED
ADC	indexed	INDEX0
ADC	indexed	INDEX1
ADC	indexed	INDEX2
ADD	'#' expr	
ADD	expr	DIRECT
ADD	expr	EXTENDED
ADD	indexed	INDEX0
ADD	indexed	INDEX1
ADD	indexed	INDEX2
AND	'#' expr	
AND	expr	DIRECT
AND	expr	EXTENDED
AND	indexed	INDEX0
AND	indexed	INDEX1
AND	indexed	INDEX2
ASL	expr	DIRECT
ASL	indexed	INDEX0
ASL	indexed	INDEX1
ASLA		
ASLX		
ASR	expr	DIRECT
ASR	indexed	INDEX0
ASR	indexed	INDEX1
ASRA		
ASRX		
BCC	expr	
BCLR	expr ',' expr	
BCS	expr	
BEQ	expr	
BHCC	expr	
BHCS	expr	

Opcode	Syntax	Selection Criteria
BHI	expr	
BHS	expr	
BIH	expr	
BIL	expr	
BIT	'#' expr	
BIT	expr	DIRECT
BIT	expr	EXTENDED
BIT	indexed	INDEX0
BIT	indexed	INDEX1
BIT	indexed	INDEX2
BLO	expr	
BLS	expr	
BMC	expr	
BMI	expr	
BMS	expr	
BNE	expr	
BPL	expr	
BRA	expr	
BRCLR	expr ',' expr ',' expr	
BRN	expr	
BRSET	expr ',' expr ',' expr	
BSET	expr ',' expr	
BSR	expr	
CLC		
CLI		
CLR	expr	DIRECT
CLR	indexed	INDEX0
CLR	indexed	INDEX1

Opcode	Syntax	Selection Criteria
CLRA		
CLRX		
CMP	'#' expr	
CMP	expr	DIRECT
CMP	expr	EXTENDED
CMP	indexed	INDEX0
CMP	indexed	INDEX1
CMP	indexed	INDEX2
COM	expr	DIRECT
COM	indexed	INDEX0
COM	indexed	INDEX1
COMA		
COMX		
CPX	'#' expr	
CPX	expr	DIRECT
CPX	expr	EXTENDED
CPX	indexed	INDEX0
CPX	indexed	INDEX1
CPX	indexed	INDEX2
DAA		INSTDAA
DEC	expr	DIRECT
DEC	indexed	INDEX0
DEC	indexed	INDEX1
DECA		
DECX		
EOR	'#' expr	
EOR	expr	DIRECT
EOR	expr	EXTENDED
EOR	indexed	INDEX0
EOR	indexed	INDEX1
EOR	indexed	INDEX2
INC	expr	DIRECT
INC	indexed	INDEX0
INC	indexed	INDEX1
INCA		

Opcode	Syntax	Selection Criteria
INCX		
JMP	expr	DIRECT
JMP	expr	EXTENDED
JMP	indexed	INDEX0
JMP	indexed	INDEX1
JMP	indexed	INDEX2
JSR	expr	DIRECT
JSR	expr	EXTENDED
JSR	indexed	INDEX0
JSR	indexed	INDEX1
JSR	indexed	INDEX2
LDA	'#' expr	
LDA	expr	DIRECT
LDA	expr	EXTENDED
LDA	indexed	INDEX0
LDA	indexed	INDEX1
LDA	indexed	INDEX2
LDX	'#' expr	
LDX	expr	DIRECT
LDX	expr	EXTENDED
LDX	indexed	INDEX0
LDX	indexed	INDEX1
LDX	indexed	INDEX2
LSL	expr	DIRECT
LSL	indexed	INDEX0
LSL	indexed	INDEX1
LSLA		
LSLX		
LSR	expr	DIRECT
LSR	indexed	INDEX0
LSR	indexed	INDEX1
LSRA		
LSRX		
MUL		INSTMUL
NEG	expr	DIRECT
NEG	indexed	INDEX0
NEG	indexed	INDEX1

Opcode	Syntax	Selection Criteria
NEGA		
NEGX		
NOP		
ORA	'#' expr	
ORA	expr	DIRECT
ORA	expr	EXTENDED
ORA	indexed	INDEX0
ORA	indexed	INDEX1
ORA	indexed	INDEX2
ROL	expr	DIRECT
ROL	indexed	INDEX0
ROL	indexed	INDEX1
ROLA		
ROLX		
ROR	expr	DIRECT
ROR	indexed	INDEX0
ROR	indexed	INDEX1
RORA		
RORX		
RSP		
RTI		
RTS		
SBC	'#' expr	
SBC	expr	DIRECT
SBC	expr	EXTENDED
SBC	indexed	INDEX0
SBC	indexed	INDEX1
SBC	indexed	INDEX2
SEC		
SEI		
STA	expr	DIRECT
STA	expr	EXTENDED

Opcode	Syntax	Selection Criteria
STA	indexed	INDEX0
STA	indexed	INDEX1
STA	indexed	INDEX2
STOP		INSTSTWA
STX	expr	DIRECT
STX	expr	EXTENDED
STX	indexed	INDEX0
STX	indexed	INDEX1
STX	indexed	INDEX2
SUB	'#' expr	
SUB	expr	DIRECT
SUB	expr	EXTENDED
SUB	indexed	INDEX0
SUB	indexed	INDEX1
SUB	indexed	INDEX2
SWI		
TAX		
TST	expr	DIRECT
TST	indexed	INDEX0
TST	indexed	INDEX1
TSTA		
TSTX		
TXA		
WAIT		INSTSTWA

A.2.2 Selection_Criteria_Keywords

- DIRECT The direct addressing mode can be used if the expression has a value between 0 and 255. The expression will be treated as a two byte long value if it is not defined when the statement is processed in the first pass.
- EXTENDED The expression can be a 2 byte long value.

INDEX0	The Indexed addressing mode with no offset can be used.
INDEX1	The Indexed addressing mode with a one byte offset can be used.
INDEX2	The Indexed addressing mode with two byte offset can be used.
INSTSTWA	The instruction is only available in the 146805, 6305, and 68hc05 instruction sets.
INSTMUL	The instruction is only available in the 68hc05 instruction set.
INSTDAA	The instruction is only available in the 6305 instruction set.

A.2.3 **Apostrophes** The apostrophes in the syntax field are a notation used for the parser generator and are not put in the assembler source statement.

A.3 Notes

A.3.1 **Bit_Numbers** The bit number expression in the BSET, BCLR, BRCLR, BRSET operations has to have value defined when the instruction is read in the first pass. The value must be between 0 and 7.

A.3.2 **Indexed Addressing** The indexed addressing mode is represented in two ways.

First, with no offset, the form ",X" is used.

Second, the form "expression, X" is used for both the one and two byte offsets modes. The expression will be treated as a two byte long value if it is not defined when the statement is processed in the first pass.

A.3.3 **Reserved_Symbols**

A.3.3.1 **Machine_Dependent_Reserved_Symbols** X x

A.3.3.2 **Standard_Reserved_Symbols** AND DEFINED EQ GE GT HIGH LE LOW LT MOD NE NOT OR SHL SHR XOR and defined eq ge gt high le low lt mod ne not or shl shr xor

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