

Description		Mnemonic	Operands	Addressing Modes	Status Bits	Modifies	Corrupts
Stop execution	0	STOP					
Return from CALL	0	RET				SP	
Return from trap	0	RETTR					
Move SP to A	0	MOVSPA				A	
Move NZVC flags to A _{12:15}	0	MOVFLGA				A	
Move A _{12:15} to NZVC flags	0	MOVAFLG					
Bitwise invert r	0	NOTr			NZ	r	
Negate r	0	NEGr			NZV	r	
Arithmetic shift left r	0	ASLr			NZVC	r	
Arithmetic shift right r	0	ASRr			NZC	r	
Rotate left r	0	ROLr			C	r	
Rotate right r	0	RORr			C	r	
Branch unconditional	0	BR	label	i,x			
Branch if less than or equal	0	BRLE	label	i,x			
Branch if less than	0	BRLT	label	i,x			
Branch if equal to	0	BREQ	label	i,x			
Branch if not equal to	0	BRNE	label	i,x			
Branch if greater than or	0	BRGE	label	i,x			
Branch if greater than	0	BRGT	label	i,x			
Branch if overflow	0	BRV	label	i,x			
Branch if Carry	0	BRC	label	i,x			
Call subprogram	0	CALL	label	i,x		SP	
Unary no operation trap	0	NOPn					
Nonunary no operation trap	0	NOP		i			
Decimal input trap	0	DECI	m,ams	d,n,s,sf,x,sx,sfx	NZV	m	
Decimal output trap	0	DECO	m,ams	i,d,n,s,sf,x,sx,sfx			
Hexadecimal output trap	0	HEXO	m,ams	i,d,n,s,sf,x,sx,sfx			
String output trap	0	STRO	m,ams	d,n,s,sf,x			
Add to stack pointer	0	ADDSP	m,ams	i,d,n,s,sf,x,sx,sfx	NZVC	SP	
Subtract from stack pointer	0	SUBSP	m,ams	i,d,n,s,sf,x,sx,sfx	NZVC	SP	
Add to r	0	ADDr	m,ams	i,d,n,s,sf,x,sx,sfx	NZVC	r	
Subtract from r	0	SUBr	m,ams	i,d,n,s,sf,x,sx,sfx	NZVC	r	
Bitwise AND to r	0	ANDr	m,ams	i,d,n,s,sf,x,sx,sfx	NZ	r	
Bitwise OR to r	0	Or	m,ams	i,d,n,s,sf,x,sx,sfx	NZ	r	
Compare r _{0:15} to word	0	CPWr	m,ams	i,d,n,s,sf,x,sx,sfx	NZVC		
Compare r _{8:15} to byte	0	CPBr	m,ams	i,d,n,s,sf,x,sx,sfx	NZVC		
Load word r _{0:15} from memory	0	LDWr	m,ams	i,d,n,s,sf,x,sx,sfx	NZ	r _{0:15}	
Load byte r _{8:15} from memory	0	LDBr	m,ams	i,d,n,s,sf,x,sx,sfx	NZ	r _{8:15}	
Store word r _{0:15} to memory	0	STWr	m,ams	d,n,s,sf,x,sx,sfx		m	
Store byte r _{8:15} to memory	0	STBr	m,ams	d,n,s,sf,x,sx,sfx		m	
Description		Directive					
The address of a symbol	0	.ADDRSS	label				
Padding to align at boundary	0	.ALIGN	number				
A string of ASCII bytes	0	.ASCII	string				
A block of bytes	0	.BLOCK	number				
Initiate ROM burn	0	.BURN					
A byte value	0	.BYTE	number				
The sentinel for the	0	.END					
Equate a symbol to a	0	.EQUATE	number				
number	0	.WORD	number				

Description		Directive					
Include file at this point	1	.INCLUDE	"fid"				
Append file at the end	1	.APPEND	"fid"				
Declare with global scope	1	.GLOBAL	label				
Begin a macro definition	1	.MACRO					
End a macro definition	1	.MACROEND					
Description		Mnemonic	Operands	Addressing	Status	Modifies	Corrupts
Branch if N	2	BRN	label				
Branch if not N	2	BRNN	label				
Branch if Z	2	BRZ	label				
Branch if not Z	2	BRNZ	label				
Branch if not oVerflow	2	BRNV	label				
Branch if not Carry	2	BRNC	label				
Clear word $r_{0:15}$	2	CLRWr			NZ	r	
Clear byte $r_{8:15}$	2	CLRBr			NZ	$r_{8:15}$	
Clear word memory	2	CLRW	m, ams			m	NZVC
Clear byte memory	2	CLRB	m, ams			m	NZVC
Increment r	2	INCr			NZVC	r	
Decrement r	2	DECr			NZVC	r	
Increment memory	2	INC	m, ams			m	NZVC
Decrement memory	2	DEC	m, ams			m	NZVC
Bitwise invert memory	2	NOT	m, ams			m	NZVC
Negate memory	2	NEG	m, ams			m	NZVC
Add; $m \leftarrow m + \text{addend}$	2	ADD	m, ams, addend, ams2			m	NZVC
Subtract; $m \leftarrow m - \text{subend}$	2	SUB	m, ams, subend, ams2			m	NZVC
Move; $\text{destin} \leftarrow \text{source}$	2	MOVE	source, ams, destin, ams2			destin	NZVC
Compare word memory	2	CPW	m1, ams, m2, ams2		NZVC		A
Compare byte memory	2	CPB	m1, ams, m2, ams2		NZVC		A
Test (compare to zero) $r_{0:15}$	2	TSTWr			NZVC		
Test (compare to zero) $r_{8:15}$	2	TSTBr			NZVC		
Test word memory	2	TSTW	m, ams		NZVC		A
Test byte memory	2	TSTB	m, ams		NZVC		A
PUSH r	2	PUSHr				SP	NZVC
POP r	2	POP r				SP, r	NZVC
PUSH memory	2	PUSH	m, ams			SP	NZVC
POP memory	2	POP	m, ams			SP, m	NZVC
Character Input	2	CHARI	m, ams				
Character Output	2	CHARO	m, ams				
String Input ¹ to memory	2	STRI¹	m, ams			m^2, A^2	NZVC
Decimal Input r	2	DECIr				r	NZVC
Decimal Output r	2	DECOr					
Binary Output r	2	BINOr					NZVC
Binary Output memory	2	BINO	m, ams				NZVC
Hexadecimal Output r	2	HEXOr					NZVC
Dump Stack (top portion)	2	DUMPS	m, ams				NZVC
Statically save r	2	SAVER³					
Statically save A,X	2	SAVE⁴					
Restore saved r	2	RESTOREr³				r	NZVC
Restore saved A,X	2	RESTORE⁴				A, X	NZVC

¹ Memory operand must reference a "String Object" with a capacity value stored in the "before byte descriptor".

² The referenced "String Object" is modified. Also, A is corrupted such that it contains the count of the number of characters read but truncated from the object's result due to unavailable capacity. Thus, a zero value in A indicates that the entire input has been stored in the string.

³ SAVER and RESTOREr are complementary matched operations.

⁴ SAVE and RESTORE are complementary matched operations.