

Data Transfer Instructions

Name	Mnemonic
Load	LD
Store	ST
Move	MOVE
Exchange	XCH
Push	PUSH
Pop	POP
Input	IN
Output	OUT

Arithmetic Instructions

Name	Mnemonic
Increment	INC
Decrement	DEC
Add	ADD
Subtract	SUB
Multiply	MUL
Divide	DIV
Add with carry	ADDC
Subtract with borrow	AUBB
Subtract reverse	SUBR
Negate	NEG

Logical and Bit Manipulation Instructions

Name	Mnemonic
Clear	LCR
Set	SET
Complement	NOT
AND	AND
OR	OR
Exclusive-OR	XOR
Clear carry	CLRC
Set carry	SETC
Complement carry	COMC

Shift Instructions

Name	Mnemonic
Logical shift right	SHR
Logical shift left	SHL
Arithmetic shift right	SHRA
Arithmetic shift left	SHLA
Rotate right	ROR
Rotate left	ROL
Rotate right with carry	RORC
Rotate left with carry	ROLC

Program Control Instructions

Name	Mnemonic
Branch	BR
Jump	JMP
Skip next instruction	SKP
Call procedure	CALL
Return from procedure	RET
Compare (by subtraction)	CMP
Test (by ANDing)	TEST

Conditional Branch Instructions Relating to Status Bits in the Processor Status Register (PSR)

Name	Mnemonic	Test condition
Branch if zero	BZ	$Z = 1$
Branch if not zero	BNZ	$Z = 0$
Branch if carry	BC	$C = 1$
Branch if no carry	BNC	$C = 0$
Branch if minus	BN	$N = 1$
Branch if plus	BNN	$N = 0$
Branch if overflow	BV	$V = 1$
Branch if no overflow	BNV	$V = 0$

Conditional Branch Instructions for Unsigned Numbers

Name	Mnemonic	Condition	Status bits*
Branch if higher	BH	$A > B$	$C+Z = 0$
Branch if higher or equal	BHE	$A \geq B$	$C = 0$
Branch if lower	BL	$A < B$	$C = 1$
Branch if lower or equal	BLE	$A \leq B$	$C+Z = 1$
Branch if equal	BE	$A = B$	$Z = 1$
Branch if not equal	BME	$A \neq B$	$Z = 0$

* Note that C here is a borrow bit

Conditional Branch Instructions for Signed Numbers

Name	Mnemonic	Condition	Status bits
Branch if greater	BG	$A > B$	$(N \oplus V) + Z = 0$
Branch if greater or equal	BGE	$A \geq B$	$N \oplus V = 0$
Branch if less	BL	$A < B$	$N \oplus V = 1$
Branch if less or equal	BLE	$A \leq B$	$(N \oplus V) + Z = 1$