

3-7 Data Movement Instructions

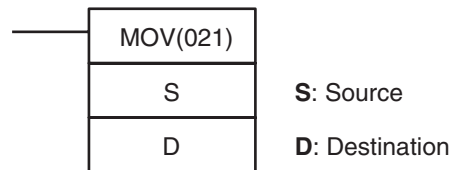
This section describes instructions used to move data in various ways.

Instruction	Mnemonic	Function code	Page
MOVE	MOV	021	247
MOVE NOT	MVN	022	248
DOUBLE MOVE	MOVL	498	250
DOUBLE MOVE NOT	MVNL	499	251
MOVE BIT	MOVB	082	253
MOVE DIGIT	MOVD	083	255
MULTIPLE BIT TRANSFER	XFRB	062	257
BLOCK TRANSFER	XFER	070	260
BLOCK SET	BSET	071	262
DATA EXCHANGE	XCHG	073	264
DOUBLE DATA EXCHANGE	XCGL	562	265
SINGLE WORD DISTRIBUTE	DIST	080	267
DATA COLLECT	COLL	081	269
MOVE TO REGISTER	MOVR	560	270
MOVE TIMER/COUNTER PV TO REGISTER	MOVRW	561	272

3-7-1 MOVE: MOV(021)

Purpose Transfers a word of data to the specified word.

Ladder Symbol



Variations

Variations	Executed Each Cycle for ON Condition	MOV(021)
	Executed Once for Upward Differentiation	@MOV(021)
	Executed Once for Downward Differentiation	Not supported
Immediate Refreshing Specification		!MOV(021)
Combined Variations	Executed Once and Destination Refreshed Immediately for Upward Differentiation	!@MOV(021)

Applicable Program Areas

Block program areas	Step program areas	Subroutines	Interrupt tasks
OK	OK	OK	OK

Operand Specifications

Area	S	D
CIO Area	CIO 0 to CIO 6143	
Work Area	W0 to W511	
Holding Bit Area	H0 to H511	
Auxiliary Bit Area	A0 to A959	A448 to A959
Timer Area	T0000 to T4095	
Counter Area	C0000 to C4095	
DM Area	D0 to D32767	

Area	S	D
Indirect DM addresses in binary	@ D0 to @ D32767	
Indirect DM addresses in BCD	*D0 to *D32767	
Constants	#0000 to #FFFF (binary)	---
Data Registers	DR0 to DR15	
Index Registers	---	
Indirect addressing using Index Registers	,IR0 to ,IR15 -2048 to +2047, IR0 to -2048 to +2047, IR15 DR0 to DR15, IR0 to IR15 ,IR0+(++) to ,IR15+(++) ,-(--) IR0 to ,-(--) IR15	

Description

Transfers S to D. If S is a constant, the value can be used for a data setting.



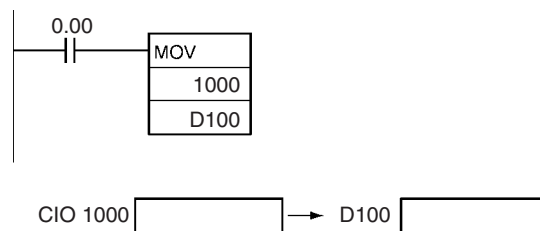
MOV(021) has an immediate refreshing variation (!MOV(021)). External input bits can be specified for S and external output bits can be specified for D. Input bits used for S will refreshed just before, and output bits used for D will be refreshed just after execution.

Flags

Name	Label	Operation
Error Flag	ER	OFF
Equals Flag	=	ON if the data being transferred is 0000. OFF in all other cases.
Negative Flag	N	ON if the leftmost bit of the data being transferred is 1. OFF in all other cases.

Example

When CIO 0.00 is ON in the following example, the content of CIO 1000 is copied to D100.



3-7-2 MOVE NOT: MVN(022)

Purpose

Transfers the complement of a word of data to the specified word.

Ladder Symbol

