

# IBM Mainframe Assembler Statements & Mnemonics

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TM

Mnemonic	Command	Type	Code
A	ADD	RX	5A
AD	ADD NORMALIZED (long)	RX	6A
ADR	ADD NORMALIZED (long)	RR	2A
AE	ADD NORMALIZED (short)	RX	7A
AER	ADD NORMALIZED (short)	RR	3A
AH	ADD HALFWORD	RX	4A
AHI	ADD HALFWORD IMMEDIATE	RI	A7A
AL	ADD LOGICAL	RX	5E
ALR	ADD LOGICAL	RR	1E
AP	ADD DECIMAL	SS	FA
AR	ADD	RR	1A
AU	ADD UNNORMALIZED (short)	RX	7E
AUR	ADD UNNORMALIZED (short)	RR	3E
AW	ADD UNNORMALIZED (long)	RX	6E
AWR	ADD UNNORMALIZED (long)	RR	2E
AXR	ADD NORMALIZED (extended)	RR	36
BAKR	BRANCH AND STACK	RRE	B240
BAL	BRANCH AND LINK	RX	45
BALR	BRANCH AND LINK	RR	05
BAS	BRANCH AND SAVE	RX	4D
BASR	BRANCH AND SAVE	RR	0D
BASSM	BRANCH AND SAVE AND SET MODE	RR	0C
BC	BRANCH ON CONDITION	RX	47
BCR	BRANCH ON CONDITION	RR	07
BCT	BRANCH ON COUNT	RX	46
BCTR	BRANCH ON COUNT	RR	06
BRAS	BRANCH RELATIVE AND SAVE	RI	A75
BRC	BRANCH RELATIVE ON CONDITION	RI	A74
BRCT	BRANCH RELATIVE ON COUNT	RI	A76
BRXH	BRANCH RELATIVE ON INDEX HIGH	RSI	84
BRXLE	BR. REL. ON INDEX LOW OR EQ.	RSI	85
BSG	BRANCH IN SUBSPACE GROUP	RRE	B258
BSM	BRANCH AND SET MODE	RR	0B
BXH	BRANCH ON INDEX HIGH	RS	86
BXLE	BRANCH ON INDEX LOW OR EQUAL	RS	87
C	COMPARE	RX	59
CD	COMPARE (long)	RX	69
CDR	COMPARE (long)	RR	29
CDS	COMPARE DOUBLE AND SWAP	RS	BB
CE	COMPARE (short)	RX	79
CER	COMPARE (short)	RR	39
CFC	COMPARE AND FORM CODEWORD	S	B21A
CH	COMPARE HALFWORD	RX	49
CHI	COMPARE HALFWORD IMMEDIATE	RI	A7E
CKSM	CHECKSUM	RRE	B241
CL	COMPARE LOGICAL	RX	55
CLC	COMPARE LOGICAL (character)	SS	D5
CLCL	COMPARE LOGICAL LONG	RR	0F
CLCLE	COMPARE LOGICAL LONG EXTENDED	RS	A9
CLI	COMPARE LOGICAL (immediate)	SI	95
CLM	COMPARE LOGICAL C. UNDER MASK	RS	BD
CLR	COMPARE LOGICAL	RR	15
CLST	COMPARE LOGICAL STRING	RRE	B25D
CP	COMPARE DECIMAL	SS	F9
CPYA	COPY ACCESS	RRE	B24D
CR	COMPARE	RR	19
CS	COMPARE AND SWAP	RS	BA
CSCH	CLEAR SUBCHANNEL	S	B230
CUSE	COMPARE UNTIL SUBSTRING EQUAL	RRE	B257
CVB	CONVERT TO BINARY	RX	4F
CVD	CONVERT TO DECIMAL	RX	4E
D	DIVIDE	RX	5D
DD	DIVIDE (long)	RX	6D
DDR	DIVIDE (long)	RR	2D
DE	DIVIDE (short)	RX	7D
DER	DIVIDE (short)	RR	3D

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Mnemonic	Command	Type	Code
DP	DIVIDE DECIMAL	SS	FD
DR	DIVIDE	RR	1D
DXR	DIVIDE (extended)	RRE	B22D
EAR	EXTRACT ACCESS	RRE	B24F
ED	EDIT	SS	DE
EDMK	EDIT AND MARK	SS	DF
EPAR	EXTRACT PRIMARY ASN	RRE	B226
EREG	EXTRACT STACKED REGISTERS	RRE	B249
ESAR	EXTRACT SECONDARY ASN	RRE	B227
ESTA	EXTRACT STACKED STATE	RRE	B24A
EX	EXECUTE	RX	44
HDR	HALVE (long)	RR	24
HER	HALVE (short)	RR	34
HSCH	HALT SUBCHANNEL	S	B231
IAC	INSERT ADDRESS SPACE CONTROL	RRE	B224
IC	INSERT CHARACTER	RX	43
ICM	INSERT CHARACTERS UNDER MASK	RS	BF
IPK	INSERT PSW KEY	S	B20B
IPM	INSERT PROGRAM MASK	RRE	B222
IPT	INVALIDATE PAGE TABLE ENTRY	RRE	B221
ISKE	INSERT STORAGE KEY EXTENDED	RRE	B229
IVSK	INSERT VIRTUAL STORAGE KEY	RRE	B223
L	LOAD	RX	58
LA	LOAD ADDRESS	RX	41
LAE	LOAD ADDRESS EXTENDED	RX	51
LAM	LOAD ACCESS MULTIPLE	RS	9A
LASP	LOAD ADDRESS SPACE PARAMETERS	SSE	E500
LCDR	LOAD COMPLEMENT (long)	RR	23
LCER	LOAD COMPLEMENT (short)	RR	33
LCR	LOAD COMPLEMENT	RR	13
LCTL	LOAD CONTROL	RS	B7
LD	LOAD (long)	RX	68
LDR	LOAD (long)	RR	28
LE	LOAD (short)	RX	78
LER	LOAD (short)	RR	38
LH	LOAD HALFWORD	RX	48
LHI	LOAD HALFWORD IMMEDIATE	RI	A78
LM	LOAD MULTIPLE	RS	98
LNDR	LOAD NEGATIVE (long)	RR	21
LNER	LOAD NEGATIVE (short)	RR	31
LNR	LOAD NEGATIVE	RR	11
LPDR	LOAD POSITIVE (long)	RR	20
LPER	LOAD POSITIVE (short)	RR	30
LPR	LOAD POSITIVE	RR	10
LPSW	LOAD PSW	S	82
LR	LOAD	RR	18
LRA	LOAD REAL ADDRESS	RX	B1
LRDR	LOAD ROUNDED (ext. to long)	RR	25
LRER	LOAD ROUNDED (long to short)	RR	35
LTDR	LOAD AND TEST (long)	RR	22
LTER	LOAD AND TEST (short)	RR	32
LTR	LOAD AND TEST	RR	12
LURA	LOAD USING REAL ADDRESS	RRE	B24B
M	MULTIPLY	RX	5C
MC	MONITOR CALL	SI	AF
MD	MULTIPLY (long)	RX	6C
MDR	MULTIPLY (long)	RR	2C
ME	MULTIPLY (short to long)	RX	7C
MER	MULTIPLY (short to long)	RR	3C
MH	MULTIPLY HALFWORD	RX	4C
MHI	MULTIPLY HALFWORD IMMEDIATE	RI	A7C
MP	MULTIPLY DECIMAL	SS	FC
MR	MULTIPLY	RR	1C
MS	MULTIPLY SINGLE	RX	71
MSCH	MODIFY SUBCHANNEL	S	B232
MSR	MULTIPLY SINGLE	RRE	B252
MSTA	MODIFY STACKED STATE	RRE	B247

Mnemonic	Command	Type	Code
MVC	MOVE (character)	SS	D2
MVCDK	MOVE WITH DESTINATION KEY	SSE	E50F
MVCIN	MOVE INVERSE	SS	E8
MVCK	MOVE WITH KEY	SS	D9
MVCL	MOVE LONG	RR	0E
MVCLE	MOVE LONG EXTENDED	RS	A8
MVCP	MOVE TO PRIMARY	SS	DA
MVCS	MOVE TO SECONDARY	SS	DB
MVCSK	MOVE WITH SOURCE KEY	SSE	E50E
MVI	MOVE (immediate)	SI	92
MVN	MOVE NUMERICS	SS	D1
MVO	MOVE WITH OFFSET	SS	F1
MVPG	MOVE PAGE (facility 1)	RRE	B254
MVPG	MOVE PAGE (facility 2)	RRE	B254
MVST	MOVE STRING	RRE	B255
MVZ	MOVE ZONES	SS	D3
MXD	MULTIPLY (long to extended)	RX	67
MXDR	MULTIPLY (long to extended)	RR	27
MXR	MULTIPLY (extended)	RR	26
N	AND	RX	54
NC	AND(character)	SS	D4
NI	AND(immediate)	SI	94
NR	AND	RR	14
O	OR	RX	56
OC	OR (character)	SS	D6
OI	OR (immediate)	SI	96
OR	OR	RR	16
PACK	PACK	SS	F2
PALB	PURGE ALB	RRE	B248
PC	PROGRAM CALL	S	B218
PR	PROGRAM RETURN	E	0101
PT	PROGRAM TRANSFER	RRE	B228
PTLB	PURGE TLB	S	B20D
RCHP	RESET CHANNEL PATH	S	B23B
RRBE	RESET REFERENCE BIT EXTENDED	RRE	B22A
RSCH	RESUME SUBCHANNEL	S	B238
SAC	SET ADDRESS SPACE CONTROL	S	B219
SACF	SET ADDR. SPACE CONTROL FAST	S	B279
SAL	SET ADDRESS LIMIT	S	B237
SAR	SET ACCESS	RRE	B24E
SCHM	SET CHANNEL MONITOR	S	B23C
SRST	SEARCH STRING	RRE	B25E
X	EXCLUSIVE OR	RX	57
XC	EXCLUSIVE OR (character)	SS	D7
XI	EXCLUSIVE OR (immediate)	SI	97
XR	EXCLUSIVE OR	RR	17

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