

	REM ORIGINAL MATRIX DESTROYED.		UAINV1 001
	REM FLOATING POINT.		INV1 002
	REM MATRIX INVERSION USING CORE STORAGE ONLY.		INV1 003
	REM COEFFICIENTS OF ORIGINAL MATRIX IN ROW ORDER.		INV1 004
	REM INVERSE IN SAME LOCATION AS ORIGINAL MATRIX.		INV1 005
	REM STORAGE REQUIREMENTS.		INV1 006
	REM MATRIX, LA11 TO LA11&N SQUARE -1		INV1 007
	REM PROGRAM, INV TO INV&170		INV1 008
	REM COMMON, COMMON TO COMMON&2N&7		INV1 009
	REM CALLING SEQUENCE.		INV1 010
	REM TSX INV,4		INV1 011
	REM HTR LA11,0,N		INV1 012
	REM RETURN, SINGULAR SET		INV1 013
	REM RETURN, NORMAL		INV1 014
	REM		INV1 015
	REM		INV1 016
INV	DCT	TURN OFF DIV. CHK. INDICATOR	INV1 017
1	NOP		INV1 018
2	SXD COMMON&1,1	SAVE INDEX 1	INV1 019
3	SXD COMMON&2,2	SAVE INDEX 2	INV1 020
4	PXD	CLEAR TO 0	INV1 021
5	STO COMMON		INV1 022
6	STO COMMON&3		INV1 023
7	STO COMMON&4		INV1 024
8	CLA 1,4	OBTAIN N	INV1 025
9	STD COMMON&3		INV1 026
10	STD INV&67		INV1 027
11	STD INV&112		INV1 028
12	STD INV&155		INV1 029
13	ARS 18		INV1 030
14	STO COMMON&5		INV1 031
15	ADD INV&78	FIRST LOCATION OF SECOND HALF OF ERASE	INV1 032
16	STA INV&34		INV1 033
17	STA INV&79		INV1 034
18	STA INV&80		INV1 035
19	STA INV&118		INV1 036
20	STA INV&119		INV1 037
21	STA INV&132		INV1 038
22	STA INV&136		INV1 039
23	STA INV&137		INV1 040
24	SUB INV&169	LAST LOCATION OF FIRST HALF OF ERASE	INV1 041
25	STA INV&121		INV1 042
26	ADD COMMON&5	LAST LOCATION OF ERASE	INV1 043
27	STA INV&94		INV1 044
28	STA INV&98		INV1 045
29	ADD INV&169	LAST LOCATION OF ERASE&1	INV1 046
30	STA INV&103		INV1 047
31	STA INV&115		INV1 048
32	CLA INV&169	SET UP ROW IDENTIFICATION IN FIRST HALF	INV1 049
33	LXD COMMON&3,1	OF ERASE	INV1 050
34	STO --,1		INV1 051
35	ADD INV&169		INV1 052
36	TIX INV&34,1,1		INV1 053
37	CLA 1,4		INV1 054
38	ADD COMMON&5	FIRST LOCATION OF SECOND ROW OF MATRIX	INV1 055

39	STA INV&86		INV1 056
40	LDQ COMMON&3	N SQUARE	INV1 057
41	MPY COMMON&3		INV1 058
42	ALS 17		INV1 059
43	STO COMMON&6		INV1 060
44	STO COMMON&7		INV1 061
45	ARS 18		INV1 062
46	ADD 1,4		INV1 063
47	ADD COMMON&5	LAST LOCATION OF MATRIX&N&1	INV1 064
48	STA INV&100		INV1 065
49	STA INV&108		INV1 066
50	CLA COMMON&6	N SQUARE	INV1 067
	ARS 18		INV1 068
	ADD 1,4	LAST LOCATION OF MATRIX	INV1 069
	SUB INV&169		INV1 070
	STA INV&109		INV1 071
	STA INV&111		INV1 072
	ADD INV&169	LAST LOCATION OF MATRIX&1	INV1 073
	STA INV&116		INV1 074
	STA INV&66		INV1 075
	STA INV&68		INV1 076
	STA INV&83		INV1 077
	STA INV&87		INV1 078
	STA INV&90		INV1 079
	LXD COMMON&6,1	NUMBER OF NON-REDUCED ELEMENTS	INV1 080
	SXD COMMON,1		INV1 081
	CLM	FIND LARGEST LEADING ROW ELEMENT	INV1 082
	ADM --,1	LEADING ELEMENT FIRST ROW	INV1 083
	TNX INV&72,1,--		INV1 084
	LDQ --,1	LEADING ELEMENT ITH ROW	INV1 085
	LRS 0		INV1 086
	TLQ INV&67		INV1 087
	TRA INV&64		INV1 088
	CLA COMMON	INTERCHANGE ROW IDENTIFICATION IN ERASE	INV1 089
	LRS 35		INV1 090
	DVH COMMON&3		INV1 091
	LLS 35		INV1 092
	ADD COMMON&4	LOCATION REDUCTION NUMBER-1	INV1 093
	PAX 0,1		INV1 094
	CLA COMMON&8	FIRST LOCATION OF FIRST HALF OF ERASE	INV1 095
	LDQ --,1	FIRST LOCATION OF SECOND HALF OF ERASE	INV1 096
	STO --,1		INV1 097
	STQ COMMON&8		INV1 098
	LXD COMMON,1		INV1 099
	CLA --,1		INV1 100
	STO COMMON	DIVISOR	INV1 101
	LXD COMMON&3,2		INV1 102
	CLA --,2	MOVE LEADING ROW	INV1 103
	STO --,1		INV1 104
	TNX INV&96,2,1		INV1 105
	TNX INV&90,1,1		INV1 106
	CLA --,1		INV1 107
	FDP COMMON	FORM PIVOTAL ROW	INV1 108
	DCT	TEST FOR SINGULAR SYSTEM	INV1 109
	TRA INV&162		INV1 110

STQ --,2		INV1 111
TRA INV&86		INV1 112
CLA INV&170		INV1 113
FDH COMMON	FORM 1/DIVISOR	INV1 114
STQ --		INV1 115
LXD COMMON&7,1		INV1 116
CLA --,1		INV1 117
STO COMMON	MULTIPLIER	INV1 118
LXD COMMON&3,2		INV1 119
LDQ --,2		INV1 120
FMP COMMON	MULTIPLY PIVOTAL ROW BY LEADING ELEMENT	INV1 121
CHS	OF ROW I AND SUBTRACT	INV1 122
TNX INV&107,1,1		INV1 123
TNX INV&111,2,1		INV1 124
FAD --,1		INV1 125
STO --,1		INV1 126
TRA INV&103		INV1 127
STO --,1		INV1 128
TXH INV&100,1,---		INV1 129
LDQ COMMON&8		INV1 130
LXD COMMON&3,2		INV1 131
CLA --,1	MOVE PIVOTAL ROW TO MATRIX FROM	INV1 132
STO --,1	SECOND HALF OF ERASE	INV1 133
TNX INV&118,2,1		INV1 134
CLA --,2	ROTATE ROW IDENTIFICATION IN FIRST HALF	INV1 135
STO --,1	OF ERASE	INV1 136
TIX INV&115,1,1		INV1 137
STQ --		INV1 138
CLA COMMON&6		INV1 139
SUB COMMON&3		INV1 140
STO COMMON		INV1 141
STO COMMON&6		INV1 142
TNZ INV&163		INV1 143
CLA INV&169		INV1 144
LXD COMMON&3,1		INV1 145
STO COMMON		INV1 146
PXD 0,1		INV1 147
PDX 0,2		INV1 148
CLA --,2	TEST FOR COLUMN ORDER	INV1 149
SUB COMMON		INV1 150
TZE INV&136		INV1 151
TIX INV&132,2,1		INV1 152
CLA --,1	INTERCHANGE COLUMN IDENTIFICATION	INV1 153
STO --,2		INV1 154
PXD 0,1	SET UP ADDRESSES FOR INTERCHANGING COLUMNS	INV1 155
SUB COMMON&3		INV1 156
ARS 18		INV1 157
SUB INV&116		INV1 158
STA INV&151		INV1 159
STA INV&154		INV1 160
PXD 0,2		INV1 161
SUB COMMON&3		INV1 162
ARS 18		INV1 163
SUB INV&116		INV1 164
STA INV&152		INV1 165

STA INV&153		INV1 166
LXD COMMON&7,2		INV1 167
CLA --,2	INTERCHANGE COLUMNS	INV1 168
LDQ --,2		INV1 169
STO --,2		INV1 170
STQ --,2		INV1 171
TIX INV&151,2,--		INV1 172
CLA COMMON		INV1 173
ADD INV&169		INV1 174
TIX INV&129,1,1		INV1 175
LXD COMMON&1,1	RESTORE INDEX 1	INV1 176
LXD COMMON&2,2	RESTORE INDEX 2	INV1 177
TRA 3,4	NORMAL EXIT	INV1 178
TXI INV&159,4,1	SINGULAR SET EXIT	INV1 179
CLA COMMON&4	INCREASE REDUCTION NUMBER	INV1 180
ADD INV&169		INV1 181
STO COMMON&4		INV1 182
CLA INV&66	MODIFY ADDRESSES FOR NEXT REDUCTION	INV1 183
SUB COMMON&5		INV1 184
TRA INV&58		INV1 185
DEC 1	FIXED CONSTANT 1	INV1 186
DEC 1.	FLOATING CONSTANT 1	INV1 187