

HP-41C Routine Listing of 8K PPC Custom ROM S1
PPC Calculator Journal V8 N2 P5/5 Mar-Apr 1981

```
01 LBL "S1"      ;Stack Sort - XROM 20,46
02 X>Y?
03 X<>Y
04 RDN
05 X>Y?
06 X<>Y
07 R^
08 X>Y?
09 X<>Y
10 R^
11 X<=Y?
12 GTO 01
13 X<>Y
14 RDN
15 X<=Y?
16 GTO 02
17 X<>Y
18 RDN
19 X<=Y?
20 GTO 03
21 X<>Y
22 LBL 03
23 RDN
24 RDN
25 GTO 01
26 LBL 02
27 R^
28 LBL 01
29 FS?C 10
30 RTN
31 RDN
32 X<> Z
33 RTN
34 LBL "S3"      ;Large Array Sort (> 32) - XROM 20,47
35 STO O
36 SF 10
37 LBL 09
38 STO 02
39 LBL 05
40 STO 01
41 FRC
42 E3
43 *
44 STO N
45 RCL 01
46 INT
47 -
48 E
49 +
50 STO M
51 RCL 01
52 E-4
53 +
54 .
55 RCL X
56 LBL 14
57 RCL IND Z
58 +
59 ISG Y
60 ""           ;F0=null string (NOP)
61 ISG Z
62 GTO 14
63 X<>Y
64 /
65 RCL N
66 X<>Y
67 RCL 01
```

```

68 STO T
69 LBL 13
70 X<> IND N
71 LBL 11
72 X<Y?
73 GTO 12
74 DSE N
75 "" ;F0=null string (NOP)
76 DSE M
77 GTO 13
78 GTO 06
79 LBL 12
80 X<> IND T
81 ISG T
82 "" ;F0=null string (NOP)
83 DSE M
84 GTO 11
85 LBL 06
86 X<> IND Z
87 FRC
88 R^
89 INT
90 +
91 LBL 10
92 ENTER
93 FRC
94 E3
95 *
96 X<>Y
97 -
98 31
99 X>Y?
100 GTO 01
101 LASTX
102 FS?C 10
103 GTO 09
104 GTO 05
105 LBL 01
106 LASTX
107 XROM 20,48 ;S2 (Small Array Sort (<= 32))
108 INT
109 RCL O
110 INT
111 X=Y?
112 GTO 08
113 RDN
114 RCL 01
115 INT
116 X<>Y
117 X>Y?
118 GTO 07
119 RCL 02
120 INT
121 X<>Y
122 X>Y?
123 GTO 07
124 E
125 -
126 E3
127 /
128 RCL O
129 INT
130 +
131 SF 10
132 GTO 09
133 LBL 07
134 E
135 -
136 E3
137 /

```

```
138 +
139 GTO 10
140 LBL 08
141 LASTX
142 BEEP
143 RTN
144 LBL "S2" ;Small Array Sort (<= 32) - XROM 20,48
145 CF 10
146 STO M
147 INT
148 E99
149 STO P
150 ENTER
151 ENTER
152 ENTER
153 LBL 04
154 X<> M
155 STO N
156 X<> M
157 LBL 00
158 X<> IND N
159 X<Y?
160 GTO 01
161 ISG N
162 GTO 00
163 SF 10
164 GTO 02
165 LBL 01
166 R^
167 X<Y?
168 GTO 01
169 X<> P
170 R^
171 R^
172 ISG N
173 GTO 00
174 GTO 02
175 LBL 01
176 X<> P
177 X<Y?
178 GTO 01
179 RDN
180 X<> P
181 RDN
182 ISG N
183 GTO 00
184 GTO 02
185 LBL 01
186 X<> T
187 X<Y?
188 X<>Y
189 R^
190 X<> P
191 X<> T
192 ISG N
193 GTO 00
194 LBL 02
195 R^
196 X<> IND M
197 X<> P
198 ISG M
199 X<> IND M
200 R^
201 ISG M
202 X<> IND M
203 R^
204 ISG M
205 X<> IND M
206 FS?C 10
207 GTO 03
```

208 R^
209 ISG M
210 X<> IND M
211 LBL 03
212 ISG M
213 GTO 04
214 LASTX
215 RTN
216 END

0145C600F300533145717545717445717446B200717546B300
717546B40071047575B200037402AA0A8575CE7185C406F300
53339177A80A0A320631691B134291762168411B409175211B
1C14401A90730F90F1409672F09671BF007143907671219170
0ECECF60C44BD009776F09775BE00B7000DCEF09670F09775BC
0007CEF1697468400B83691B13427141131145B20076AA0ABA
00B6000276A5306890776878B9007521687145B80022687145
B8001B411B134390776840A80ABA00081B411B134340BB0009
768685C616F3005332A90A9175681B1919917883838305CE75
9176CE7501CEF644B2009676B100A80AB300027444B200CE78
74749676B100B30002CE7844B20075CE78759676B100B30002
CE70447174CE78CE709676B1000374CEF5CE789675CEF57496
75CEF5749675CEF5AA0AB400749675CEF5049675B5007685C4
11093C

325 BYTES

Program Registers Needed: 47

Row 1 (1 - 8)



Row 2 (9 - 19)



Row 3 (20 - 29)



Row 4 (30 - 35)



Row 5 (36 - 45)



Row 6 (46 - 55)



Row 7 (56 - 63)



Row 8 (64 - 73)



Row 9 (74 - 80)



Row 10 (81 - 89)



Row 11 (90 - 100)



Row 12 (101 - 108)



Row 13 (109 - 118)



Row 14 (119 - 128)



Row 15 (129 - 138)



Row 16 (139 - 145)



Row 17 (145 - 153)



Row 18 (154 - 161)



Row 19 (161 - 169)



Row 20 (169 - 177)



Row 21 (178 - 185)



Row 22 (186 - 193)



Row 23 (194 - 201)



Row 24 (202 - 209)



Row 25 (209 - 216)

