

HP-41C Direct Synthetic Entry by Morris L. Bernstein  
PPC Calculator Journal Volume 10 No 2 Pg 23 Mar 1983  
Program requires PPC ROM & Extended Functions module

```
01 LBL "SYN" ;Direct Entry of Synthetic Instructions
02 SIZE? ;This program fits on 1 card and will
03 12 ;only generate two byte instructions
04 X>Y?
05 PSIZE
06 XROM 10,23 ;L- - PPC ROM Load Part of LB
07 LBL 00
08 "INSTR?"
09 AON
10 CF 23
11 TONE 9
12 PROMPT ;Enter Instruction
13 AOFF
14 FC? 23
15 CF 09
16 FC?C 23
17 GTO 02
18 AVIEW
19 -44
20 STO 05
21 XEQ 03
22 CLA
23 RCL 05
24 XROM 25,26 ;PASN
25 RDN
26 STO 05
27 X<>Y
28 X<0?
29 GTO 01
30 XROM 10,24 ;-B - PPC ROM Store Part of LB
31 LBL 01
32 RCL 05
33 X<0?
34 GTO 00
35 LBL 02
36 XROM 10,24 ;-B - PPC ROM Store Part of LB
37 GTO 00
38 LBL 03
39 32
40 XROM 25,28 ;POSA
41 X<0?
42 GTO 15
43 ">\01" ;Append 01 hex
44 XROM 25,06 ;AROT
45 XROM 25,07 ;ATOX
46 XROM 25,28 ;POSA
47 CF 10
48 X<0?
49 GTO 05
50 CHS
51 SF 10
52 LBL 04
53 XROM 25,07 ;ATOX
54 RDN
55 ISG X
56 GTO 04
57 LBL 05
58 CF 22
59 XROM 25,02 ;ANUM
60 FS?C 22
61 GTO 08
62 XROM 25,07 ;ATOX
63 84
64 -
65 X<0?
66 GTO 06
```

```
67 X=0?
68 GTO 07
69 7
70 -
71 X<0?
72 GTO 07
73 LASTX
74 -
75 LBL 06
76 9
77 +
78 X>0?
79 3
80 X>0?
81 +
82 CHS
83 LBL 07
84 CHS
85 112
86 +
87 LBL 08
88 1
89 XROM 25,28 ;POSA
90 CHS
91 LBL 09
92 XROM 25,07 ;ATOX
93 RDN
94 ISG X
95 GTO 09
96 RDN
97 XROM 25,02 ;ANUM
98 X<>Y
99 FS?C 22
100 RTN
101 CLX
102 X<> d
103 RCL 05
104 SF 25
105 XROM 25,26 ;PASN
106 FC?C 25
107 SF 99
108 RCL Q
109 X<> P
110 X<> Z
111 STO d
112 R^
113 XROM 25,07 ;ATOX
114 X<>Y
115 FC? 10
116 RTN
117 XROM 25,46 ;X<>F
118 R^
119 208
120 R^
121 X<>Y
122 X=Y?
123 GTO 11
124 RDN
125 224
126 X<>Y
127 SF 07
128 X#Y?
129 GTO 12
130 LBL 11
131 RDN
132 174
133 LBL 12
134 R^
135 XROM 25,46 ;X<>F
136 END
```

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```
00E0C000F40053594EA66C111245A65EA29701F6494E535452
3F8CA9179F098E8BAD17A909AB17B3007E1C141435E0000387
25A65A75357166B200A298022566B10003A298B100041312A6
5C66D0000FF27F01A646A647A65CA90A66B60054A80A05A647
759673B50006A916A642AA16B900A64718144166B70067B800
174166B800764107194064136440540854111112400911A65C
540AA647759673BA0075A64271AA168577CE7E25A819A65AAB
19A8639079CE78CE71917E74A64771AD0A85A66E7412101874
7178BC007512121471A80779BD000C751117140D74A66EC000
0D33
```

224 BYTES

HP-41C Make Inputs for LB by Morris L. Bernstein  
PPC Calculator Journal Volume 10 N2 P23 Mar 1983  
Program uses PPC ROM & Extended Functions module

```
01 LBL "MLB" ;Make Inputs for LB (Load Bytes)
02 SIZE? ;This program will generate most
03 12 ;1-, 2-, and 3-byte instructions
04 X>Y?
05 XROM 25,30 ;PSIZE
06 XROM 10,23 ;L- - PPC ROM Load Part of LB
07 LBL 00
08 "INSTR?"
09 AON
10 CF 23
11 TONE 9
12 PROMPT ;Enter Instruction
13 AOFF
14 FC? 23
15 CF 09
16 FC?C 23
17 GTO 02
18 AVIEW
19 -44
20 STO 05
21 XEQ 03
22 CLA
23 RCL 05
24 XROM 25,26 ;PASN
25 RDN
26 STO 05
27 CLX
28 208
29 X=Y?
30 SF 23
31 CLX
32 224
33 X=Y?
34 SF 23
35 X<>Y
36 X<0?
37 GTO 01
38 XROM 10,24 ;-B - PPC ROM Store Part of LB
39 LBL 01
40 CLX
41 FS?C 23
42 XROM 10,24 ;-B - PPC ROM Store Part of LB
43 RCL 05
44 X<0?
45 GTO 00
46 LBL 02
47 XROM 10,24 ;-B - PPC ROM Store Part of LB
48 GTO 00
49 LBL 03
```

```
50 32
51 XROM 25,28 ;POSA
52 X<0?
53 GTO 15
54 >"\01" ;Append 01 hex
55 XROM 25,06 ;AROT
56 XROM 25,07 ;ATOX
57 XROM 25,28 ;POSA
58 CF 10
59 X<0?
60 GTO 05
61 CHS
62 SF 10
63 LBL 04
64 XROM 25,07 ;ATOX
65 RDN
66 ISG X
67 GTO 04
68 LBL 05
69 CF 22
70 XROM 25,02 ;ANUM
71 FS?C 22
72 GTO 08
73 XROM 25,07 ;ATOX
74 84
75 -
76 X<0?
77 GTO 06
78 X=0?
79 GTO 07
80 7
81 -
82 X<0?
83 GTO 07
84 LASTX
85 -
86 LBL 06
87 9
88 +
89 X>0?
90 3
91 X>0?
92 +
93 CHS
94 LBL 07
95 CHS
96 112
97 +
98 LBL 08
99 1
100 XROM 25,28 ;POSA
101 CHS
102 LBL 09
103 XROM 25,07 ;ATOX
104 RDN
105 ISG X
106 GTO 09
107 RDN
108 XROM 25,02 ;ANUM
109 X<>Y
110 FS?C 22
111 RTN
112 CLX
113 X<> d
114 RCL 05
115 SF 25
116 XROM 25,26 ;PASN
117 FC?C 25
118 SF 99
119 RCL Q
```

```

120 X<> P
121 X<> Z
122 STO d
123 R^
124 XROM 25,07 ;ATOX
125 X<>Y
126 FC? 10
127 RTN
128 XROM 25,46 ;X<>F
129 R^
130 208
131 R^
132 X<>Y
133 X=Y?
134 GTO 11
135 RDN
136 224
137 X<>Y
138 SF 07
139 X#Y?
140 GTO 12
141 LBL 11
142 RDN
143 174
144 LBL 12
145 R^
146 XROM 25,46 ;X<>F
147 RTN
148 LBL 15
149 0
150 X<> d
151 RCL 05
152 SF 25
153 XROM 25,26 ;PASN
154 FC?C 25
155 SF 99
156 RCL Q
157 "****" ;3 asterisks
158 X<> M
159 X<> N
160 X<> Z
161 STO d
162 ASHF
163 4
164 XROM 25,07 ;ATOX
165 X=Y?
166 CHS
167 XROM 25,07 ;ATOX
168 END

```

```

0118C000F4004D4C42A66C111245A65EA29701F6494E535452
3F8CA9179F098E8BAD17A909AB17B3007E1C141435E0000387
25A65A75357712101878A8177712121478A8177166B200A298
0277AA17A2982566B10003A298B100041312A65C66D0000FF2
7F01A646A647A65CA90A66B60054A80A05A647759673B50006
A916A642AA16B900A64718144166B70067B800174166B80076
4107194064136440540854111112400911A65C540AA6477596
73BA0075A64271AA168577CE7E25A819A65AAB19A8639079CE
78CE71917E74A64771AD0A85A66E74121018747178BC007512
121471A80779BD000C751117140D74A66E85CF0F10CE7E25A8
19A65AAB19A8639079F32A2A2ACE75CE76CE71917E8814A647
7854A647C0000D92

```

280 BYTES

# HP-41C Direct Synthetic Entry by M. L. Bernstein PPC V10 N2 P23 Mar 1983

Program Registers Needed: 32

Row 1 (1 - 5)



Row 2 (5 - 10)



Row 3 (10 - 17)



Row 4 (18 - 25)



Row 5 (26 - 35)



Row 6 (36 - 42)



Row 7 (43 - 49)



Row 8 (49 - 57)



Row 9 (58 - 64)



Row 10 (65 - 74)



Row 11 (75 - 85)



Row 12 (86 - 95)



Row 13 (95 - 104)



Row 14 (104 - 110)



Row 15 (111 - 119)



Row 16 (119 - 127)



# HP-41C Direct Synthetic Entry by M. L. Bernstein PPC V10 N2 P23 Mar 1983

Row 17 (127 - 135)



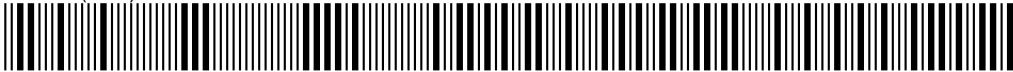
Row 18 ( 136 )



## HP-41C Make Inputs for LB by M. L. Bernstein PPC V10 N2 P23 Mar 1983

Program Registers Needed: 40

Row 1 (1 - 5)



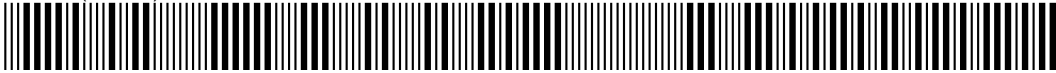
Row 2 (5 - 10)



Row 3 (10 - 17)



Row 4 (18 - 25)



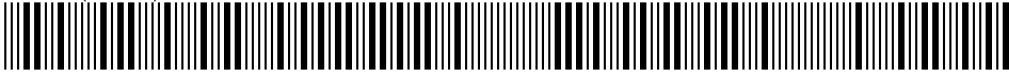
Row 5 (26 - 33)



Row 6 (34 - 42)



Row 7 (42 - 50)



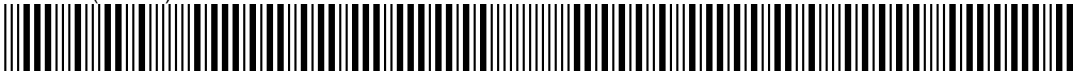
Row 8 (51 - 56)



Row 9 (57 - 64)



Row 10 (65 - 72)



Row 11 (72 - 80)



Row 12 (81 - 92)



# HP-41C Make Inputs for LB by M. L. Bernstein PPC V10 N2 P23 Mar 1983

Row 13 (93 - 102)



Row 14 (103 - 110)



Row 15 (111 - 118)



Row 16 (119 - 126)



Row 17 (126 - 134)



Row 18 (135 - 143)



Row 19 (143 - 151)



Row 20 (152 - 157)



Row 21 (157 - 164)



Row 22 (165 - 168)

