

00524C PROGRAM DESCRIPTION I

Page 1 of 8

Program Title Banner
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Program Description, Equations, Variables This program builds 1.5 inch characters
from a 10 digit number. Each number is broken down into pairs
representing the 5 coulums of the 5x10 character matrix. Each
half of a pair represents the top/bottom half of a column. The
actual number indirectly recalls a register into the alpha register.
Various combinations of data in registers 00-09 are combined to
create the columns. The program will print A-Z, 0-9, %, <, =, >, +,
-, *, /, \$ and space. Other characters result in an automatically
recovering error.

Necessary Accessories 2 memory modules. Printer

Operating Limits and Warnings None

Reference(s) HP-41C Banner Program. Dean Lampman PPC Journal Sep 1979

This program has been verified only with respect to the numerical example given in *Program Description II*. User accepts and uses this program material AT HIS OWN RISK, in reliance solely upon his own inspection of the program material and without reliance upon any representation or description concerning the program material.

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Sample _____ ed)

[illegible]

PROGRAM LISTING

☐ 67 ☐ 97 ☒ 41C

STEP/ LINE	KEY ENTRY	KEY CODE (67/97 only)	COMMENTS	STEP/ LINE	KEY ENTRY	KEY CODE (67/97 only)	COMMENTS
	01*LBL "BAN NER"		Tests for Size	46 *			Recalls 1/2 of column
	02 SF 25			47 ARCL IND			Recalls second half of column
	03 RCL 13			X			
	04 FC?C 25			48 FRC			
	05 GTO 09			49 10			
	06 CLA			50 *			
	07 " "			51 ARCL IND			
	08 ARCL 01			X			
	09 ASTO 13		Tests for data	52 FRC			Prints columns
	10 RCL 09			53 PRA			
	11 RCL 13			54 CLA			
	12 X=Y?			55 ISG 10			
	13 GTO A			56 GTO 03			
	14 "LOAD DA TA"			57 ADV			
	15 AVIEW			58 ADV			
	16 .014			59 GTO A			
	17 RDTAX			60*LBL 07			Appends space onto letters A-J for indirect recall.
	18*LBL A			61 CLA			
	19 CF 12		Initilizes Flags	62 ARCL 13			
	20 CF 21			63 "T "			
	21 CF 23			64 ASTO 13			
	22 CLA			65 SF 25			
	23 31.09			66 XEQ IND			
	24 STO 12			13			
	25 AON			67 FC?C 25			Second test for valid character
	26 "CHR=?"		Prompting Loop	68 GTO 08			
	27 AVIEW			69 1 E10			
	28*LBL 00			70 /			
	29 PSE			71 GTO 03			
	30 FC? 23			72*LBL 08			Error-Character not found
	31 GTO 00			73 CLA			
	32 ASTO 13			74 "WRONG C HR"			
	33 SF 12		Loads Character Data	75 CF 21			
	34 SF 21			76 AVIEW			
	35 .004			77 PSE			
	36 STO 10			78 SF 21			
	37 SF 25			79 GTO A			
	38 XEQ IND			80*LBL 09			
	13			81 "SIZE = 014"			Size error
	39 FC?C 25		Tests for valid character	82 PROMPT			
	40 GTO 07			83 GTO "BAN NER"			
	41 1 E10			84*LBL " "			
	42 /			85 0			
	43*LBL 03			86 RTN			
	44 CLA			87*LBL "\$"			Data for characters
	45 10			88 45421142			
				93			

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STEP/ LINE	KEY ENTRY	KEY CODE (67/97 only)	COMMENTS	STEP/ LINE	KEY ENTRY	KEY CODE (67/97 only)	COMMENTS
89	RTN			127	43637333		
90	LBL "Z"			01			
91	47573465			128	RTN		
63				129	LBL "8"		
92	RTN			130	55222222		
93	LBL "*"			55			
94	76347600			131	RTN		
95	RTN			132	LBL "9"		
96	LBL "+"			133	65424242		
97	34349834			98			
34				134	RTN		
98	RTN			135	LBL "<"		
99	LBL "--"			136	34766743		
100	34343434			00			
34				137	RTN		
101	RTN			138	LBL "=="		
102	LBL "/"			139	76767676		
103	40503405			76			
03				140	RTN		
104	RTN			141	LBL ">"		
105	LBL "0"			142	43677634		
106	98434343			143	RTN		
98				144	LBL "?>"		
107	RTN			145	70383330		
108	LBL "1"			8			
109	47431140			146	RTN		
40				147	LBL "A "		
110	RTN			148	11020202		
111	LBL "2"			11			
112	57232342			149	RTN		
45				150	LBL "B "		
113	RTN			151	11424242		
114	LBL "3"			95			
115	67222222			152	RTN		
98				153	LBL "C "		
116	RTN			154	98434343		
117	LBL "4"			43			
118	34363733			155	RTN		
11				156	LBL "D "		
119	RTN			157	11434343		
120	LBL "5"			98			
121	49424242			158	RTN		
93				159	LBL "E "		
122	RTN			160	11424242		
123	LBL "6"			43			
124	98232323			161	RTN		
57				162	LBL "F "		
125	RTN			163	11020202		
126	LBL "7"			03			
50				164	RTN		

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STEP/ LINE	KEY ENTRY	KEY CODE (67/97 only)	COMMENTS	STEP/ LINE	KEY ENTRY	KEY CODE (67/97 only)	COMMENTS
165	LBL "G "			202	45424242		
166	98434323			93			
53				203	RTN		
167	FTN			204	LBL "T"		
168	LBL "H "			205	30311030		
169	11040404			3			
11				206	RTN		
170	RTN			207	LBL "U"		
171	LBL "I "			208	91404040		
172	43431143			91			
43				209	RTN		
173	RTN			210	LBL "V"		
174	LBL "J "			211	19040900		
175	63431103			1			
03				212	RTN		
176	RTN			213	LBL "W"		
177	LBL "K"			214	11607060		
178	11347667			11			
43				215	RTN		
179	RTN			216	LBL "X"		
180	LBL "L"			217	89763476		
181	11404040			89			
40				218	RTN		
182	RTN			219	LBL "Y"		
183	LBL "M"			220	93480340		
184	11070607			9			
11				221	RTN		
185	RTN			222	LBL "Z"		
186	LBL "N"			223	43832249		
187	11053550			43			
11				224	RTN		
188	RTN			225	END		
189	LBL "O"						
190	98434343						
98							
191	RTN						
192	LBL "P"						
193	11020202						
05							
194	RTN						
195	LBL "Q"						
196	98434363						
98							
197	RTN						
198	LBL "R"						
199	11327262						
45							
200	RTN						
201	LBL "S"						
00							

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 (EP/
LINE KEY ENTRY KEY CODE
 (67/97 only)

COMMENTS

STEP/
LINE

KEY ENTRY

KEY CODE
(67/97 only)

COMMENTS

 01+LBL "BAN
REG"

02 CLRG

03 CLST

04 CLA

05 SF 25

06 STO 13

07 FC? 25

08 GTO 01

09 31

10 BLDSPC

11 STO 10

12 ARCL 10

13 ARCL 10

14 ASTO 11

15 ARCL 11

16 ARCL 11

17 ASTO 01

18 " "

19 ASTO 00

20 CLA

21 ARCL 10

22 "F "

23 ARCL 10

24 ASTO 02

25 " "

26 ARCL 10

27 ASTO 03

28 CLA

29 ARCL 10

30 ARCL 00

31 ASTO 04

32 " "

33 ARCL 11

34 ARCL 11

35 "F "

36 ASTO 05

37 " "

38 ARCL 11

39 ARCL 00

40 ASTO 06

41 " "

42 ARCL 11

43 "F "

44 ASTO 07

45 CLA

46 ARCL 11

47 ARCL 11

48 ARCL 02

49 ASTO 08

50 " "

51 ARCL 01

52 ASTO 09

53 0

54 STO 10

55 STO 11

56 "STORE D"

ATA"

57 AVIEW

58 .015

59 WDTAX

60 STOP

61+LBL 01

62 "SIZE =

014"

63 PROMPT

64 END

70

80

90

00

STATUS

SIZE 014 TOT. REG. 155 USER MODE
ENG _____ FIX X SCI _____ ON X OFF _____
DEG X RAD _____ GRAD _____

FLAGS

FLAGS			
#	INIT S/C	SET INDICATES	CLEAR INDICATES
12	C	Expanded	normal
21	C	Printer on	Printer off
23	C	Alpha Entry	No Entry
25	S	No Error	Error

45		95
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ASSIGNMENTS

[illegible]

PROGRAM REGISTERS NEEDED: 135

ROW 1 (1 : 3)



ROW 2 (4 : 11)



ROW 3 (12 : 14)



ROW 4 (14 : 20)



ROW 5 (20 : 26)



ROW 6 (26 : 32)



ROW 7 (33 : 38)



ROW 8 (39 : 45)



ROW 9 (46 : 54)



ROW 10 (55 : 62)



ROW 11 (63 : 68)



ROW 12 (69 : 74)



ROW 13 (74 : 79)



ROW 14 (79 : 81)



ROW 15 (81 : 84)



ROW 16 (84 : 88)



ROW 17 (88 : 91)



ROW 18 (91 : 93)



ROW 19 (93 : 96)



ROW 20 (96 : 97)



ROW 21 (98 : 100)



ROW 22 (100 : 103)



ROW 23 (103 : 106)



ROW 24 (106 : 108)



ROW 25 (108 : 110)



ROW 26 (111 : 112)



ROW 27 (112 : 115)



ROW 28 (115 : 118)



ROW 29 (118 : 120)



ROW 30 (120 : 123)



ROW 31 (123 : 124)



ROW 32 (124 : 127)



ROW 33 (127 : 130)



ROW 34 (130 : 132)



ROW 35 (133 : 135)



ROW 36 (135 : 136)



ROW 37 (137 : 139)



ROW 38 (139 : 142)



ROW 39 (142 : 145)



ROW 40 (145 : 147)



ROW 41 (148 : 150)



ROW 42 (150 : 151)



ROW 43 (151 : 154)



ROW 44 (154 : 157)



ROW 45 (157 : 159)



ROW 46 (159 : 160)



ROW 47 (161 : 163)



ROW 48 (163 : 166)



ROW 49 (166 : 168)



ROW 50 (168 : 170)



ROW 51 (171 : 172)



ROW 52 (172 : 175)



ROW 53 (175 : 177)



ROW 54 (178 : 180)



ROW 55 (180 : 181)



ROW 56 (182 : 184)



ROW 57 (184 : 187)



ROW 58 (187 : 190)



ROW 59 (190 : 192)



ROW 60 (192 : 194)



ROW 61 (195 : 196)



ROW 62 (196 : 199)



ROW 63 (199 : 202)



ROW 64 (202 : 204)



ROW 65 (204 : 207)



ROW 66 (207 : 208)



ROW 67 (209 : 211)



ROW 68 (211 : 214)



ROW 69 (214 : 217)



ROW 70 (217 : 219)



ROW 71 (219 : 222)



ROW 72 (222 : 223)



ROW 73 (224 : 225)

