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10 ' CPC IBase
15 ' The Astrad User
20 MEMORY 42500
30 DEFSTR a,z:field1=9
40 KEY DEF 66,1,32,32,32
50 DIM field$(9):DIM z(5)
60 CLOSEIN:OPEN 1:INK 1,8:INK 8,24:BORDER 24:MODE 1:LOCATE 17,1:INK 2,2:PRINT"CPDBASE":WINDOW 1,48,5,25:WINDOW #1,1,48,3,3:INK 3,6:WINDOW #2,1,48,25,25
70 ON BREAK GOSUB 2910
80 IF PEEK(43981)<>237 AND PEEK(43981)<>238 THEN GOSUB 2850
90 IF PEEK(43981)=238 THEN INK 2,8:INK 3,14

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100 MENU #1,"MENU MODE":PRINT"Select from:"PRINT
110 RESTORE:FOR q=1 TO 8:READ a
120 PRINT:PRINT"("MID$(STR$(q),2,1)") "a:NEXT
130 DATA Field entry,Record entry,List or order present
file,Edit or delete a record,Save file/fields only,Load
d file/fields only,Erase file,Exit program
140 WHILE INKEY#<>"":WEND
150 a="":WHILE a("<"OR a">"")a=INKEY#:WEND
160 ON VAL(a)GOTO 180,340,560,1370,1730,2220,2650,2710
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    *** (1) FIELD ENTRY ***
CLS:PRINT#, "FIELD ENTRY MODE"
280 LINE INPUT "Enter title of files";title$:IF LEN(title$)>20 THEN PRINT"TITLE TOO LONG." :GOTO 200
210 IF title$="" THEN title$="Unnamed file"
220 title$=UPPER$(title$):CLS:PRINT title$:WINDOW 1,48,7,25:FOR q=1 TO field1
230 PRINT"Enter field no."MID$(STR$(q),2,1)" ";LINE INPUT field$(q)
240 IF LEN(field$(q))>20 THEN PRINT"FIELD TOO LONG." :GOTO 230
250 IF RIGHT$(field$(q),1)="/" THEN field$(q)=LEFT$(field$(q),LEN(field$(q))-1)
260 IF field$(q)="" THEN PRINT"INVALID ENTRY." :GOTO 230
270 IF q=field1 GOTO 320
280 PRINT:PRINT"Another field? (Y/N)"
290 WHILE INKEY#<>"":WEND
300 a="":WHILE a("<"OR a">"N")a=UPPER$(INKEY#):WEND
310 IF a="Y" THEN CLS:NEXT
320 field1=q
330 WINDOW 1,48,5,25:CLS:GOTO 180
340
350
360
370
380
390
400
    *** (2) RECORD ENTRY ***
'ON ERROR GOTO 2500
370 IF field# THEN PRINT#2,"NO FIELDS HAVE YET BEEN ENTERED." :FOR pause=1 TO 1500:NEXT:CLS#2:GOTO 140
380 IF at=1 GOTO 410 ELSE at=1
390 num=INT (FRE("))/(field#30))
400 DIM rec$(num,field)

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110 PRINT#1,"DATA ENTRY MODE"
420 WINDOW #3,21,40,5,5:CLS:PRINT title#;WINDOW 1,40,7,
25
430 FOR g=rec+1 TO num
440 CLS
450 PRINT#3,"Record#g:FOR h=1 TO field
460 PEN 2:PRINT field$(h)*";PEN 3:LINE INPUT rec$(g,h)
:;PEN 1
470 IF LEN(rec$(g,h))>40 THEN PRINT"ENTRY TOO LONG." :GO
TO 460
480 NEXT:PRINT:PRINT"Enter another record? (Y/N)"
490 WHILE INKEY$(">")=END
500 a="":WHILE a(">")="Y"AND a(">")="N":a=UPPER$(INKEY$):END
510 IF a="Y"THEN NEXT
520 rec=g:field=field
530 GOTO 60
540 PRINT"NO ROOM FOR ANY MORE RECORDS." :rec$(g,1)="":IF
OR h=1 TO field:rec$(g,h)="":NEXT:num=g:GOTO 100
550 '
560 ' *** (3) LIST/ORDER FILE ***
570 IF rec=0 THEN PRINT#2,"NO RECORDS HAVE YET BEEN EN
TERED." :FOR pause=1 TO 1500:NEXT:CLS#2:GOTO 140
580 PEN 1:WINDOW 1,40,5,25:CLS:PRINT#1,"LIST/ORDER FILE
MODE"
590 PRINT"Select from:" :PRINT
600 RESTORE 610:PRINT:FOR g=1 TO 5:READ a:PRINT"("RIGHT
$(STR$(g),1) " a:PRINT
610 NEXT
620 DATA List all records,List certain fields of all re
cords,Search through file,Order file,Return to main men
u
630 WHILE INKEY$(">")=END
640 a="":WHILE a(">")="R"OR a">")="5":a=INKEY$:END
650 IF a="5"GOTO 60
660 ON VAL(a)GOTO 680,770,960,1230,60
670 '
680 ' *** (3A) LIST ALL RECORDS **
*
690 CLS:PRINT Title#;PRINT#2," PRESS SPACE BAR TO STOP,
ESC TO PAUSE":WINDOW 1,40,7,23
700 FOR g=1 TO rec:PRINT:PRINT"RECORD" g
710 FOR h=1 TO field
720 PEN 2:PRINT field$(h)*";PEN 3:PRINT LEFT$(rec$(g,
h),39-LEN(field$(h))):MID$(rec$(g,h),40-LEN(field$(h)),
40)
730 IF INKEY$=" "GOTO 580
740 PEN 1:NEXT:NEXT
750 GOTO 2780
760 '
770 ' *** (3B) LIST CERTAIN FIELDS
OF ALL RECORDS ***
780 CLS
790 LINE INPUT"Type in the number(s) of the fields to
be listed: ",a
800 IF a=""THEN GOTO 830

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810 FOR g=1 TO LEN(a):IF MID$(a,g,1)="0"AND MID$(a,g,1)
(">")="9"THEN NEXT:GOTO 820 ELSE 830
820 IF VAL(a)=0 THEN GOTO 830 ELSE 840
830 PRINT"INVALID ENTRY." :GOTO 790
840 IF LEN(a)=1 THEN IF VAL(a)=field THEN PRINT"THERE A
RE NOT THIS MANY FIELDS." :GOTO 790 ELSE 860
850 FOR g=1 TO LEN(a):IF VAL(MID$(a,g,1))<=field THEN N
EXT:GOTO 860 ELSE PRINT"THERE ARE NOT THIS MANY FIELDS."
:GOTO 790
860 CLS:PRINT Title#;WINDOW 1,40,7,23
870 PRINT#2," PRESS SPACE BAR TO STOP, ESC TO PAUSE"
880 FOR g=1 TO rec
890 FOR h=1 TO LEN(a)
900 temp=VAL(MID$(a,h,1))
910 PEN 2:PRINT field$(temp)*";PEN 3:PRINT LEFT$(rec
$(g,temp),39-LEN(field$(h))):MID$(rec$(g,temp),40-LEN
(field$(temp)),40)
920 IF INKEY$=" "THEN GOTO 580
930 NEXT:NEXT:PRINT:GOTO 2780
940 END
950 '
960 ' *** (3C) SEARCH THROUGH FILE
***
970 RESTORE 990
980 CLS
990 FOR g=1 TO 5:READ a
1000 PRINT"Enter the RIGHT$(STR$(g),1);a" piece of da
ta to be found:" :LINE INPUT z(g)
1010 IF z(g)=""THEN PRINT"INVALID ENTRY." :GOTO 1000
1020 DATA at,nd,rd,th,th
1030 IF g=5 THEN 1070 ELSE PRINT"do you want to search
for other data simultaneously? (Y/N)"
1040 WHILE INKEY$(">")=END
1050 a="":WHILE a(">")="Y"AND a(">")="N":a=UPPER$(INKEY$):END
1060 IF a="Y"THEN CLS:NEXT
1070 CLS:tempg
1080 flagA=0
1090 FOR g=1 TO rec:flagB=0
1100 a=""
1110 FOR h=1 TO field
1120 a=a+rec$(g,h)+* "
1130 NEXT
1140 FOR h=1 TO temp:IF INSTR(a,z(h))>0 THEN flagB=fla
gB+1:IF flagB=temp THEN flagA=flagA+1:GOTO 1170 ELSE NE
XT
1150 flag5=1:GOTO 1210
1160 IF flagA=0 GOTO 1190 ELSE IF g>rec THEN PRINT:PRIN
T:GOTO 2780
1170 IF flagA=1 THEN PRINT title#;WINDOW 1,40,7,25
1180 PRINT:PRINT"RECORD" g:FOR h=1 TO field:PEN 2:PRINT
field$(h)*";PEN 3:PRINT LEFT$(rec$(g,h),39-LEN(field$
(h))):MID$(rec$(g,h),40-LEN(field$(h)),40):PEN 1:NEXT:G
OTO 1210
1190 PRINT"No record was found containing " :FOR h=1 TO
temp:PRINT z(h):IF temp=1 THEN PRINT".":GOTO 2780 ELS

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IF h=temp-1 THEN PRINT* AND "z(h+1)".*;GOTO 2788
1200 PRINT*, "j";NEXT:GOTO 2780
1210 NEXT g:IF flag5=0 THEN PRINT:PRINT:GOTO 2780 ELSE
flag5=0:GOTO 1160
1220 '
1230 '
*** (3D) ORDER FILE ***
1240 CLS:PRINT"Enter number of field by which file is
to be ordered:"
1250 WHILE INKEY#("<>")WEND
1260 a="":WHILE VAL(a)<1 OR VAL(a)>fields:a=INKEY#;WEND
1270 temp=VAL(a)
1280 SPEED INK 28,30:PEN #4,2:INK 2,24,8:WINDOW #4,1,40
,9,9:PRINT#4,"          SORTING FILE, PLEASE WAIT"
1290 flag#0:FOR g=1 TO rec-1
1300 IF rec#(g,temp)<rec#(g+1,temp)GOTO 1330
1310 FOR h=1 TO fieldstemp=rec#(g+1,h):rec#(g+1,h)=rec
#(g,h):rec#(g,h)=temp#
1320 NEXT:hflag#1
1330 NEXT:IF flag#1 GOTO 1290
1340 IF PEEK(43983)=238 THEN INK 2,8 ELSE INK 2,2
1350 PEN #4,1:PRINT#4,"          File has been ordered.":IF
OR pause=1 TO 1500:NEXT:GOTO 580
1360 '
1370 '
*** (4) EDIT/DELETE A RECORD ***
1380 IF rec=0 THEN PRINT#2,"NO RECORDS HAVE YET BEEN EN
TERED.":FOR pause=1 TO 1500:NEXT:PRINT#2:GOTO 140
1390 CLS:PRINT#1,"EDIT/DELETE RECORD MODE"
edit a recor
delete a record"
1410 WHILE INKEY#("<>")WEND
1420 a="":WHILE a("<")"E" AND a("<")"D":a=UPPER$(INKEY#):WEND
1430 IF a="D" GOTO 1580
1440 '
1450 '
*** (4A) EDIT A RECORD ***
1460 CLS
1470 LINE INPUT"Enter number of record to be edited":a
:IF a=""GOTO 1570
1480 FOR g=1 TO LEN(a):IF MID$(a,g,1)<"0"OR MID$(a,g,1
)>"9"GOTO 1570 ELSE NEXT
1490 IF VAL(a)=0 GOTO 1570
1500 IF VAL(a)>rec THEN PRINT"THERE ARE NOT THIS MANY R
ECORDS.":GOTO 1470
1510 CLS:PRINT"Press ENTER alone to bypass a field.":PR
INT:PRINT
1520 FOR g=1 TO field
1530 PEN 2:PRINT field$(g):":PEN 3:PRINT LEFT$(rec#(V
AL(a),g),39-LEN(field$(g))):MID$(rec#(VAL(a),g),40-LEN(
field$(g)),40):TAB(LEN(field$(g)))" *:LINE INPUT a1
1540 IF a1=""THEN 1560 ELSE IF LEN(a1)>60 THEN PRINT"EN
TRY TOO LONG.":GOTO 1530
1550 rec#(VAL(a),g)=a1
1560 NEXT:GOTO 60
1570 PRINT"INVALID ENTRY.":GOTO 1470
1580 '

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1590 '
*** (4B) DELETE A RECORD ***
ove fol
save a blank record
"
1610 WHILE INKEY#("<>")WEND
1620 a="":WHILE a("<")"M"AND a("<")"L":a=UPPER$(INKEY#):WEND
1630 IF a="L"THEN flag#1 ELSE flag#0
1640 CLS
1650 LINE INPUT"Enter number of record to be deleted":
a:IF a=""THEN 1720
1660 FOR g=1 TO LEN(a):IF MID$(a,g,1)<"0"AND MID$(a,g,1
)>"9"THEN 1720 ELSE NEXT
1670 IF VAL(a)=0 THEN 1720
1680 IF VAL(a)>rec THEN PRINT"THERE ARE NOT THIS MANY R
ECORDS.":GOTO 1650
1690 IF flag#0 THEN FOR g=VAL(a) TO rec-1:FOR h=1 TO
field:rec#(g,h)=rec#(g+1,h):NEXT:rec#(g+1,h)=rec-1:GOTO 17
20
1700 FOR g=1 TO field:rec#(VAL(a),g)=":NEXT
1710 PRINT:PRINT:PRINT"Record "a" has been deleted.":FO
R g=1 TO 1500:NEXT:GOTO 60
1720 PRINT"INVALID ENTRY.":GOTO 1650
1730 '
1740 '
*** (5) SAVE FILE/FIELDS ON
LY ***
1750 IF field=0 THEN PRINT#2,"NO FIELDS HAVE YET BEEN E
NTERED.":FOR pause=1 TO 1500:NEXT:PRINT#2:GOTO 140
1760 CLS:PRINT#1,"SAVE FILE/FIELDS MODE":PRINT"Select f
rom:":PRINT:PRINT:PRINT"(1) Save whole file":PRINT:PRIN
T"(2) Save the fields alone"
1770 WHILE INKEY#("<>")WEND
1780 a="":WHILE a("<")"1"AND a("<")"2":a=INKEY#;WEND
1790 IF rec=0 AND a="1"THEN PRINT#2,"NO RECORDS HAVE YE
T BEEN ENTERED.":FOR pause=1 TO 1500:NEXT:GOTO 60
1800 PRINT:PRINT:PRINT"Saving speed Fast or Normal? (F/
N)"
1810 WHILE INKEY#("<>")WEND
1820 a1="":WHILE a1("<")"F"AND a1("<")"N":a1=UPPER$(INKEY#):W
END
1830 IF a1="N"THEN SPEED WRITE 8 ELSE SPEED WRITE 1
1840 IF a="2"GOTO 2050
1850 '
1860 '
*** (5A) SAVE WHOLE FILE ***
"
1870 CLS:PRINT"Press play and record on the tape, **and
**then press the ENTER key."
1880 WHILE INKEY#("<>")WEND
1890 WHILE INKEY#("<>")WEND:PRINT:PRINT"SAVING "ti
tle#,"
1900 ON BREAK GOSUB 2910

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1910 OPENOUT("!\Extras")
1920 PRINT#9,title$:PRINT#9,field:PRINT#9,rec:CLOSEOUT
1930 OPENOUT("!\Fields")
1940 FOR g=1 TO field:PRINT#9,field$(g):NEXT:CLOSEOUT
1950 OPENOUT("!\Records"):FOR g=1 TO rec:FOR h=1 TO field:PRINT#9,rec$(g,h):NEXT:NEXT:CLOSEOUT
1960 OPENOUT ("!\PRESS ESC NOW."):PRINT#9,"!":CLOSEOUT
1970 PRINT:PRINT "File has now been saved. ""Would you
""like to verify? (Y/N)""
1980 WHILE INKEY$(<>)"":WEND
1990 a="":WHILE a(<)"Y"AND a(<)"N":a=UPPER$(INKEY$):WEND
2000 IF a="N"THEN GOTO 60
2010 PRINT:PRINT"Rewind tape and press play. If a read
error occurs, then either rewind tape,orpress ESC twi
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ce and re-record. Press ESC twice on seeing "CHR\$(34)"
PRESS ESC NOW"CHR\$(34)".

2820 KEY DEF 66,1,252,252,252:ON BREAK GOSUB 2840:CAT:O
N BREAK GOSUB 2910:KEY DEF 66,1,32,32,32

2830 GOTO 60

2840 RETURN

2850 '

2860 ' *** (5B) SAVE FIELDS ALONE

2870 CLS:PRINT"Press play and record on the tape, ""and
""then press the ENTER key."

2880 WHILE INKEY\$(<)"":WEND:WHILE INKEY\$(<)CHR\$(13):WEND:
PRINT:PRINT"SAVING FIELDS."

2890 OPENOUT("!\Extras")

2100 PRINT#9,title\$:PRINT#9,field:PRINT#9,rec:CLOSEOUT

2110 OPENOUT("!\Fields")

2120 FOR g=1 TO field:PRINT#9,field\$(g):NEXT:CLOSEOUT

2130 OPENOUT("!\PRESS ESC NOW.") :PRINT#9,"!":CLOSEOUT

2140 PRINT:PRINT "Fields have now been saved. ""Would y
ou ""like to verify? (Y/N)"

2150 WHILE INKEY\$(<)"":WEND

2160 a="":WHILE a(<)"Y"AND a(<)"N":a=UPPER\$(INKEY\$):WEND

2170 IF a="N"THEN 60

2180 PRINT:PRINT"Rewind tape and press play. If a read
error occurs, then either rewind tape,orpress ESC twi
ce and re-record. Press ESC twice on seeing "CHR\$(34)"
PRESS ESC NOW"CHR\$(34)".

2190 KEY DEF 66,1,252,252,252:ON BREAK GOSUB 2840:CAT:O
N BREAK GOSUB 2910:KEY DEF 66,1,32,32,32

2200 GOTO 60

2210 '

2220 ' *** (6) LOAD FILE/FIELDS ON
LY ***

2230 CLS:PRINT#1,"LOAD FILE/FIELDS ONLY MODE"

2240 PRINT"Select from:" :PRINT:PRINT:PRINT"(1) Load who
le file " :PRINT:PRINT"(2) Load fields only"

2250 WHILE INKEY\$(<)"":WEND

2260 a="":WHILE a(<)"1"AND a(<)"2":a=UPPER\$(INKEY\$):WEND

2270 PRINT:PRINT:PRINT

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2280 IF a="2" THEN 2480
2290 '
2300 ' *** (6A) LOAD WHOLE FILE **
*
2310 CLEAR:DEFSTR a,z:field1=9:DIM z(5)
2320 LINE INPUT "Enter name of file to be loaded, or
press ENTER alone to load the first filefound: ",a1
2330 IF LEN(a1)>28 THEN PRINT "NAME TOO LONG.":GOTO 2320
ELSE a1=UPPER$(a1)
2340 CLS:PRINT "Press play on tape, then press ENTER.":W
HILE INKEY#("<>"):GOTO 2340:WHILE INKEY#("<>"):GOTO 2340
2350 PRINT:PRINT:PRINT "SEARCHING FOR ";a1:IF a1("<>")THEN P
RINT a1:ELSE PRINT "UNKNOWN FILE."
2360 LOCATE 1,18:PRINT "If a read error occurs, rewind t
ape and press play, or press ESC, and then type GOTO 60
<ENTER>." :LOCATE 1,7
2370 ON BREAK GOSUB 2460
2380 OPENIN("Extras"):GOSUB 2470:LINE INPUT#9,title:P
RINT "FOUND "title:IF title("<>")AND a1("<>")THEN PRINT:
CLOSEIN:GOTO 2380 ELSE PRINT "-LOADING."
2390 INPUT#9,fields:INPUT#9,recs:DIM field$(field):st1=1
num=INT(FRE(8)/(field*30)):DIM rec$(num,field):st1=1
2400 CLOSEIN:OPENIN("fields"):GOSUB 2470
2410 FOR g=1 TO field:LINE INPUT#9,field$(g):NEXT:CLOSE
IN
2420 OPENIN("Records"):GOSUB 2470
2430 FOR g=1 TO recs:FOR h=1 TO field:LINE INPUT#9,rec$(
g,h):NEXT:NEXT:CLOSEIN
2440 field=field
2450 ON BREAK STOP:CLS:GOTO 100
2460 flag=1:RETURN
2470 IF flag=1 GOTO 2450 ELSE RETURN
2480 ' *** (6B) LOAD FIELDS ONLY *
**
2490 LINE INPUT "Enter name of fields to be loaded, or
press ENTER alone to load the first filefound: ",a1
2500 IF LEN(a1)>28 THEN PRINT "NAME TOO LONG.":GOTO 2490
ELSE a1=UPPER$(a1)
2510 CLS:PRINT "Press play on tape, then press ENTER.":W
HILE INKEY#("<>"):GOTO 2510:WHILE INKEY#("<>"):GOTO 2510
2520 PRINT:PRINT:PRINT "SEARCHING FOR ";a1:IF a1("<>")THEN P
RINT a1:ELSE PRINT "UNKNOWN FIELDS."
2530 LOCATE 1,18:PRINT "If a read error occurs, rewind t
ape and press play, or press ESC, and then type GOTO 60
<ENTER>." :LOCATE 1,7
2540 ON BREAK GOSUB 2460
2550 OPENIN("Extras"):GOSUB 2470:LINE INPUT#9,title:P
RINT "FOUND "title:IF title("<>")AND a1("<>")THEN PRINT:
CLOSEIN:GOTO 2550 ELSE PRINT "-LOADING FIELDS."
2560 INPUT#9,fields:INPUT#9,dummys:num=INT(FRE(8)/(field*
30))
2570 CLOSEIN:OPENIN("fields"):GOSUB 2470
2580 IF field>field THEN FIELD2=FIELD ELSE FIELD2=FIELD
01
2590 FOR g=1 TO FIELD2

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2600 IF field1(field) THEN field=field1
2610 LINE INPUT#9,field$(g):NEXT:CLOSEIN
2620 num=INT(FRE(8)/(field*30))
2630 IF rec=0 THEN DIM rec$(num,field):st=1
2640 ON BREAK STOP:CLS:GOTO 100
2650 ' *** (7) ERASE FILE ***
2660 CLS:PRINT "Are you sure? (Y/N)"
2670 WHILE INKEY#("<>"):GOTO 2670
2680 a="":WHILE a("<>")AND a("<>")N=a:UPPER$(INKEY#):GOTO 2680
2690 IF a="N" THEN CLS:GOTO 100
2700 FOR g=1 TO 1500:NEXT:PRINT:PRINT:PRINT "File has be
en erased.":FOR g=1 TO 1500:NEXT:RUN
2710 ' *** (8) EXIT PROGRAM ***
2720 CLS:PRINT "Are you sure? (Y/N)"
2730 WHILE INKEY#("<>"):GOTO 2730
2740 a="":WHILE a("<>")AND a("<>")N=a:UPPER$(INKEY#):GOTO 2740
2750 IF a="N" THEN CLS:GOTO 100
2760 CALL 0
2770 END
2780 '
2790 ' *** WAIT FOR ENTER KEY ***
2800 PRINT#2," PRESS ENTER TO RETURN TO MENU"
2810 WHILE INKEY#("<>"):GOTO 2810
2820 a="":WHILE a("<>")AND a("<>")N=a:UPPER$(INKEY#):GOTO 2820
2830 GOTO 500
2840 '
2850 ' *** GREEN SCREEN ROUTINE ***
2660 PRINT:PRINT:PRINT "Are you using Green scree
n or Colour? (B/C)"
2870 WHILE INKEY#("<>"):GOTO 2870
2880 a="":WHILE a("<>")AND a("<>")C=a:UPPER$(INKEY#):GOTO 2880
2890 IF a="B" THEN POKE 43901,238 ELSE POKE 43901,237
2900 CLS:RETURN
2910 RETURN <del>

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It doesn't work?

When listings don't work. It is frustrating. Here are some tips that might help.
The best thing to do is split up long lines; one line for one command. The listing may double in length, but you'll get a much better picture of what's going on.

Confusing the letters o or O with the numeral 0, or the small letter l or capital I with the number 1. We do ask authors to avoid using these letters as variables.

Confusing a colon (:) with a semicolon (;). DATA statements are particular traps for the unwary, because a blunder in one of these will cause an error message when the computer attempts to execute some other line.

Don't spend hours on a listing that won't work. Perhaps later, or even the next day, chances are the mistake will stick out like a sore thumb.