THE TARGET

JULY/AUGUST

-- an AIM65 newsletter

In a recent survey made by Kilobaud Microcomputing the Aim 65 had a ranking of 16th with 1% of the total of microcomputers owned.

I understand that the literature for Rockwell's expansion board is available. A new User's Guide or Monitor Listing is available for $5 a piece. The User's Guide includes the major changes that were included in the revised pages and some minor corrections such as typing.

The new Monitor Listing changes only the Symbol Table in the back by adding all references to the symbols. It presently refers only to the location where it resides.

The NCR paper that was listed as an approved paper apparently does not exist. A black print paper would be very desirable but I strongly advise the individual reader NOT to experiment with non-approved papers.

For possible future reference the printer now has a cost of about $50 and a four digit section of the display is about $30. The printer is Olivetti. See the Statistical Analysis article for more printer comments.

I have received some letters about problems with the Enclosures Group. I suggest that you purchase the same enclosure from the suppliers in the Hardware Section of this issue. Note that all the enclosures listed may not be from these same people so if you desire their particular enclosure contact those suppliers to determine if it is one and the same.

The September/October issue will contain a review of the Little Buffered Mother and 16K ram board from Seawell Marketing among other goodies.

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STATISTICAL ANALYSIS

Geo. Sellars
1033 Bishop Walsh Rd.
Cumberland, MD 21502

I talked to the Service Center in El Paso and they estimate 3-5 million lines of printer life with Rockwell paper and greater than 1 million with the other approved papers. The only failures they have seen are with the non-approved papers.(Ed.Note. Do not use TI paper).

I hope to use the Aim for control of a telescope, data collection from a seismograph, statistical analysis and stock-market analysis, etc.

I got my Basic in early May and I am very satisfied with it. Included are a few programs using it for statistical analysis.

Least squares (or regression analysis) is a statistical principle which determines the best fit coefficients (minimum error between actual data and equation) for a set of data. For instance, if data were obtained from some measurements such as the distance (Y) that an arm moved for a voltage (X) that is applied to a device such as

X	Y
1	2
2.1	2.9
2.9	4.1
4	5

one could expect that Y=A+BX where A and B are constants of a straight line. By using LINR1, A=.917, B=1.03 and the error (standard deviation, S) is .19. The value F is a measure of the statistical significance (how confident is one that the correlation is real and not a random occurance). The value of F is looked up in a table for the number of tests involved. See any basic statistics book for "F ration". The example run for LINR1 uses the above data.

The other routines fit other equation forms on similar principles,i.e. LINR2 uses transformations on X and/or Y because many times this will make the basic equation into a linear equation.

All linear regression programs use 999 for each input variable to signal the program to begin calculation of the constants.

A brief description of each program is provided below. MREG1 covers the case of two independent variables X and Z. B_x and B_z are coefficients while A is a constant. All but STOK4 use keyboard input. STOK4 reads data put into the Text Editor.

MEGR1, LINR3,LINR4 will be presented in the next issue.

LINR1 Least squares of $Y = A+BX$

LINR2 Least squares of $Y' = A+BX'$

LINR3 Least squares of $Y = C(1-E^{BX})$
(uses uses iterative to find the best B)

LINR4 Least squares of $Y = A+CE^{BX}$
(similar approach as LINR3)

STOK4 Moving average & std. deviation From 2-11 points/avg.

MEGR1 Least squares of $Y = A+B_xX+B_zZ$

In the Oct. 1977 issue of Kilobaud some timing comparisons were made between the various Basic versions which were available at that time. George has supplied the following results he obtained while running the benchmark tests in that article.

BENCHMARK PROGRAM	TIME (sec)	INTERPOLATED RANK
1	1.39	3
2	8.58	3
3	16.19	4
4	18.21	4
5	19.52	3-1/2
6	29.14	4
7	45.62	4-1/3

The ranking is out of over 30 different versions of Basic

GENERAL INFORMATION

Article contributions are always welcome. Program listings may or may not be retyped. Artwork will not be redrawn and will be reduced in size if necessary. Text should accompany programs to explain what the program does, how it does it and how it may be modified.

Please enclose a stamped self addressed envelope for any replies that you desire.

The Target-an Aim 65 newsletter is published bimonthly with an annual subscription rate of $5 in the US and CAN and $12 elsewhere. Write to Don Clem RR#2 Spencerville,OH 45887

LINR1

```
 10 DIM X(100),Y(100
)
 100 FOR I=1 TO 100
 101 PRINT "ENTER X,
Y"
 102 INPUT X(I),Y(I)
 104 IF X(I)=999 THE
N 200
 120 SM(1)=SM(1)+X(I
)
 130 SM(2)=SM(2)+X(I
)^2
 140 SM(3)=SM(3)+Y(I
)
 150 SM(4)=SM(4)+Y(I
)^2
 160 SM(5)=SM(5)+X(I
)*Y(I)
 170 SM(6)=SM(6)+1
 180 NEXT I
 181 PRINT "I=>=100"
 182 STOP
 200 N=SM(5)-SM(1)*S
M(3)/SM(6)
 210 DN=SM(2)-SM(1)*
SM(1)/SM(6)
 220 B=N/DN
 230 A=(SM(3)-B*SM(1
))/SM(6)
 240 S=SM(4)-SM(3)^2
/SM(6)-N*N/DN
 242 S=SQR(S/(SM(6)-
2))
 250 F=(N*N/DN)/S*S
 300 PRINT "A=";A
 310 PRINT "B=";B
 320 PRINT "S=";S
 330 PRINT "F=";F
 340 PRINT "NO=";SM(
6)

RUN
ENTER X,Y
? 1
?? 2
ENTER X,Y
? 2.1
?? 2.9
ENTER X,Y
? 2.9
?? 4.1
ENTER X,Y
? 4
?? 5
ENTER X,Y
? 999
?? 999
A=  .91701245
B= 1.03319502
S=  .193246986
F= 5.1453112
NO= 4
```

LINR2

```
 10 DIM X(100),Y(100
)
 20 PRINT "ENTER OPT
ION"
 21 PRINT "1-LINEAR"
 22 PRINT "2-LN(Y)"
 23 PRINT "3-LN(X)"
 24 PRINT "4-LN(X),L
N(Y)
 25 INPUT IP
 26 GOTO 100
 30 X(I)=LOG(X(I))
 31 RETURN
 40 Y(I)=LOG(Y(I))
 41 RETURN
 100 FOR I=1 TO 100
 101 PRINT "ENTER X,
Y"
 102 INPUT X(I),Y(I)
 104 IF X(I)=999 THE
N 200
 105 IF IP=2 THEN 11
0
 106 IF IP=3 THEN 11
2
 107 IF IP=4 THEN 11
4
 108 GOTO 120
 110 GOSUB 40
 111 GOTO 120
 112 GOSUB 30
 113 GOTO 120
 114 GOSUB 30
 115 GOSUB 40
 116 GOTO 120
 120 SM(1)=SM(1)+X(1
))
 130 SM(2)=SM(2)+X(I
)^2
 140 SM(3)=SM(3)+Y(I
)
 150 SM(4)=SM(4)+Y(I
)^2
 160 SM(5)=SM(5)+X(I
)*Y(I)
 170 SM(6)=SM(6)+1
 180 NEXT I
 181 PRINT "I=>=100"
 182 STOP
 200 N=SM(5)-SM(1)*S
M(3)/SM(6)
 210 DN=SM(2)-SM(1)*
SM(1)/SM(6)
 220 B=N/DN
 230 A=(SM(3)-B*SM(1
))/SM(6)
 240 S=SM(4)-SM(3)^2
/SM(6)-N*N/DN
 242 S=SQR(S/(SM(6)-
2))
 250 F=(N*N/DN)/S*S
 300 PRINT "A=";A
 310 PRINT "B=";B
 320 PRINT "S=";S
 330 PRINT "F=";F
 340 PRINT "NO=";SM(
6)

RUN
ENTER OPTION
1-LINEAR
2-LN(Y)
3-LN(X)
4-LN(X),LN(Y)
? 2
ENTER X,Y
? 1
?? 1
ENTER X,Y
? 2
?? 2
ENTER X,Y
? 3
?? 2.5
ENTER X,Y
? 4
?? 3
ENTER X,Y
? 5
?? 3.25
ENTER X,Y
? 999
?? 999
A=-.0514914913
B=  .27627751
S=  .209467731
F=  .763292628
NO= 5
```

STOK4

```
LIST
890 PRINT!"ENTER N FOR MOVING
AVG"
895 INPUT! NA
900 AD=PEEK(225)+256*
PEEK(226)-21
901 AM=PEEK(227)+256*
PEEK(228)
902 SS=0
903 AX=48
904 SX=0
905 DEF FNP(U)=PEEK(U)-AX
906 PRINT!"VOL,HIGH,LOW,OR
CLOSE?"
907 INPUT! XA$
908 NX=0
910 NI=0
911 NM=1
912 GOSUB 990
915 XM=XX
920 NI=2
921 NM=3
922 GOSUB 990
925 XD=XX
930 NI=4
931 NM=5
932 GOSUB 990
935 XY=XX+1900
945 X =10000*XY+100*XM+XD
949 IF XA$<>"VOL"GOTO959
950 NI=6
951 NM=9
952 GOTO 1090
959 IF XA$<>"HIGH"GOTO 969
960 NI=11
961 NM=13
964 GOTO 1090
969 IF XA$<>"LOW"GOTO 979
970 NI=14
971 NM=16
972 GOTO 1090
979 IF XA$<>"CLOSE"GOTO 1000
980 NI=17
981 NM=19
984 GOTO 1090
990 XX=0
991 FOR N=NI TO NM
992 IF FNP(AD+N)<0 GOTO 998
993 IF NM>9 GOTO 996
994 XX=10*XX+FNP(AD+N)
995 GOTO 998
996 IF N<>NM GOTO 994
997 XX=XX+FNP(AD+N)/8
998 NEXT N
999 RETURN
1000 AD=AD-21
1005 IF AM<AD GOTO 910
1089 END
1090 GOSUB 990
1093 GOSB 1100
1099 GOTO 1000
1100 SS=0
1101 SX=0
1102 IF NX<NA GOTO 1148
1103 X(NA)=XX
1104 FOR I=1 TO NA
1110 SX=SX+X(I-1)
1115 SS=SS+X(I-1)*X(I-1)
1117 X(I-1)=X(I)
1120 NEXT I
1125 XA=SX/NA
1130 S=SS-SX*SX/NA
1135 S=SQR(S/(NA-1))
1140 PRINT!"AVE ";XA$;XA
1145 PRINT!"SD  ";XA$;S
1146 NX=NX+1
1147 RETURN
1148 X(I)=XX
1150 I=I+1
1155 GOTO 1146
```

```
RUN
ENTER N FOR MOVING AVG
?5
VOL,HIGH,LOW,OR CLOSE?
?CLOSE
AVE CLOSE 16.575
SD  CLOSE
 .142521991
AVE CLOSE 16.775
SD  CLOSE
 .427565798
AVE CLOSE 16.925
SD  CLOSE
 .381198791
AVE CLOSE 17
SD  CLOSE
 .342326598
AVE CLOSE 17.025
SD  CLOSE
 .323554496
AVE CLOSE 17.075
SD  CLOSE
 .259205551
AVE CLOSE 16.9
SD  CLOSE
 .185404994
AVE CLOSE 16.9
SD  CLOSE
 .185404994
AVE CLOSE 16.925
SD  CLOSE
 .209165049
AVE CLOSE 16.95
SD  CLOSE
 .209165049
AVE CLOSE 17.275
SD  CLOSE
 .714798931
 BREAK IN 993
```

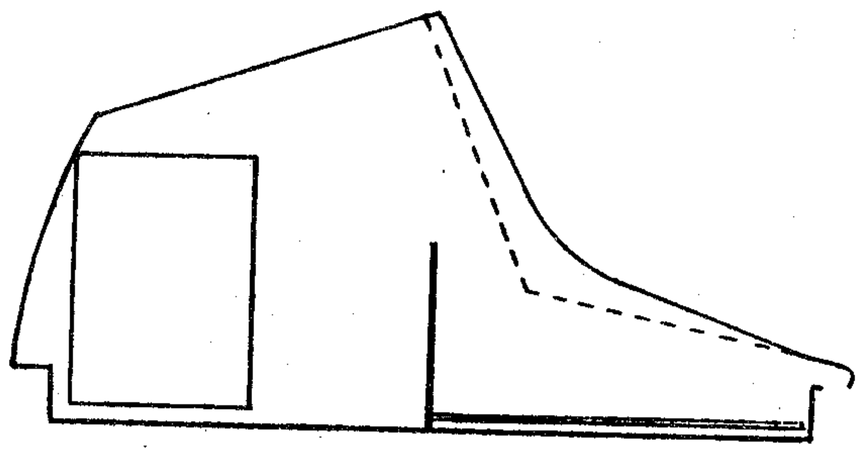
HAVE YOU RETURNED YOUR

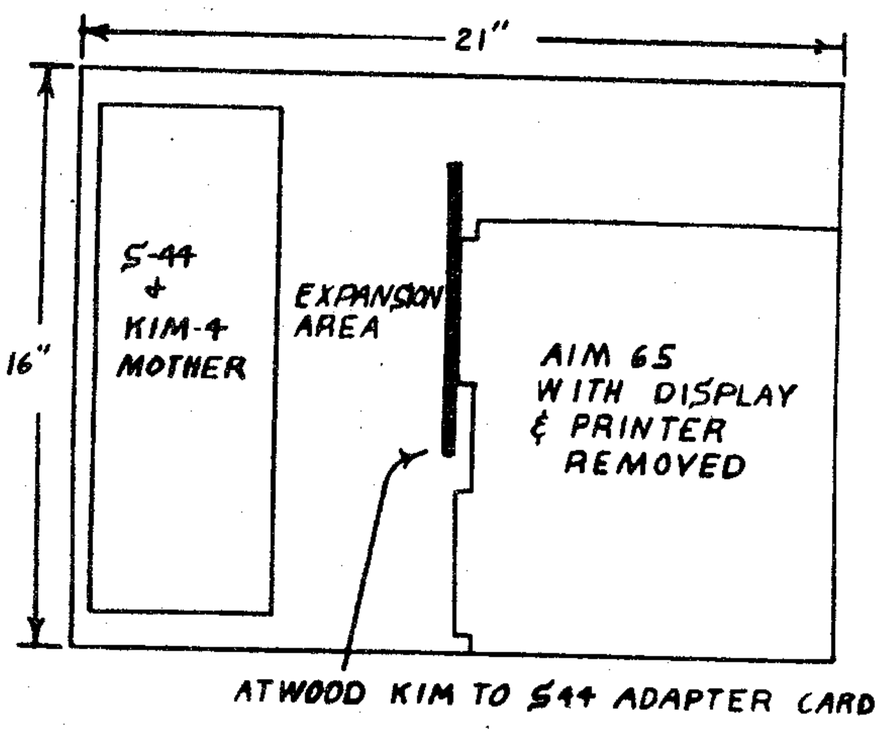
QUESTIONAIRE??

A PROGRAM IDEA

A Program Idea for this month is supplied by the readers. The following list is a cross-section of the needs expressed by readers. Opinions of products, construction details and modification ideas are all needed.

Analog I/O, Kim to Aim software conversion, floppy disk info, review of products, converting other basic programs to Aim basic, Kim hardware compatibility, can larger chips be substituted for the on board ram, connection of a TVT 6-5/8 to the Aim, TVT interfaces, receive and transmit CW and RTTY with the Aim, Aim 65 and graphics, educational uses for the Aim, using the Aim as an interval timer to determine charges made by the hour.

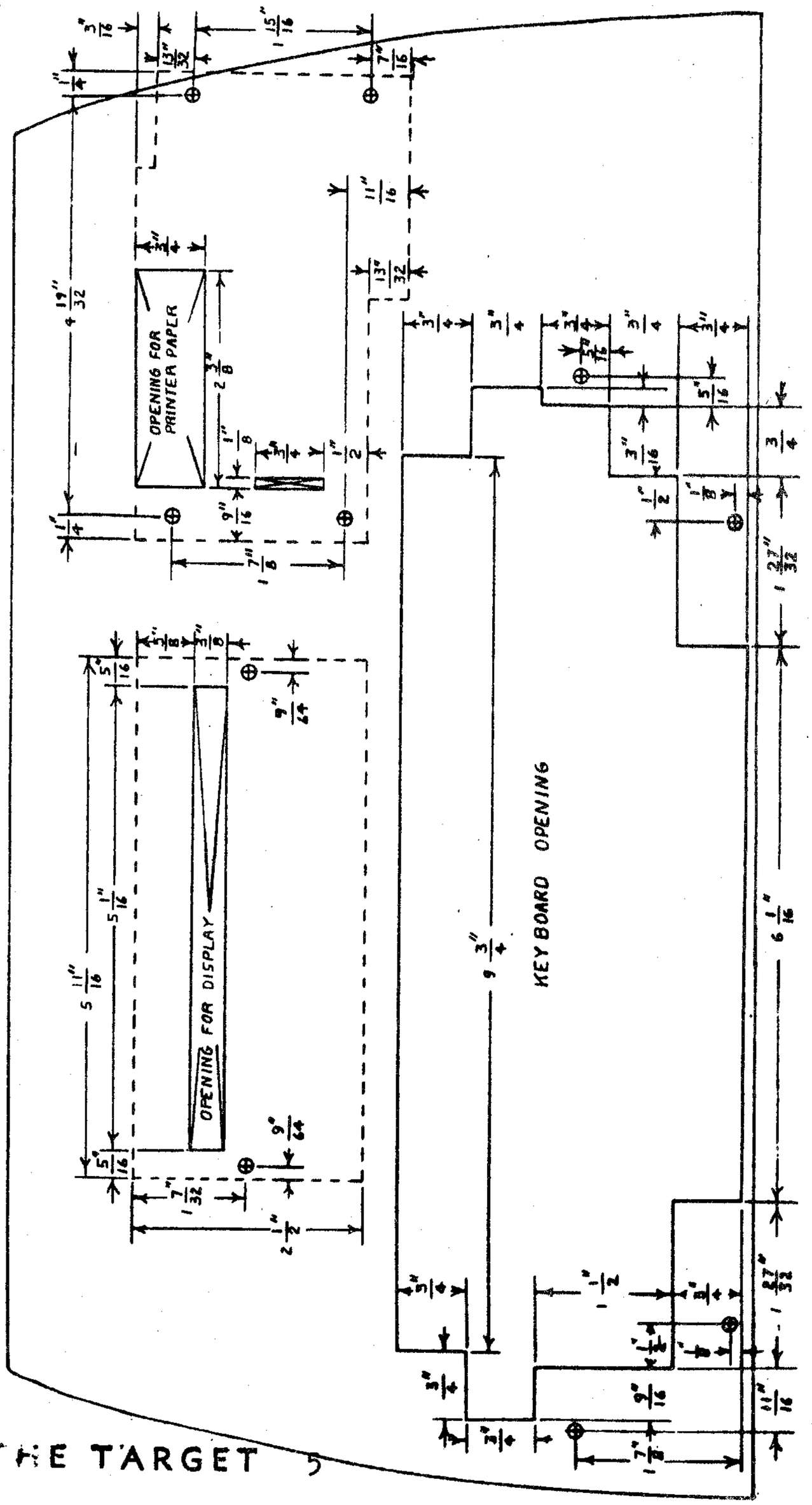




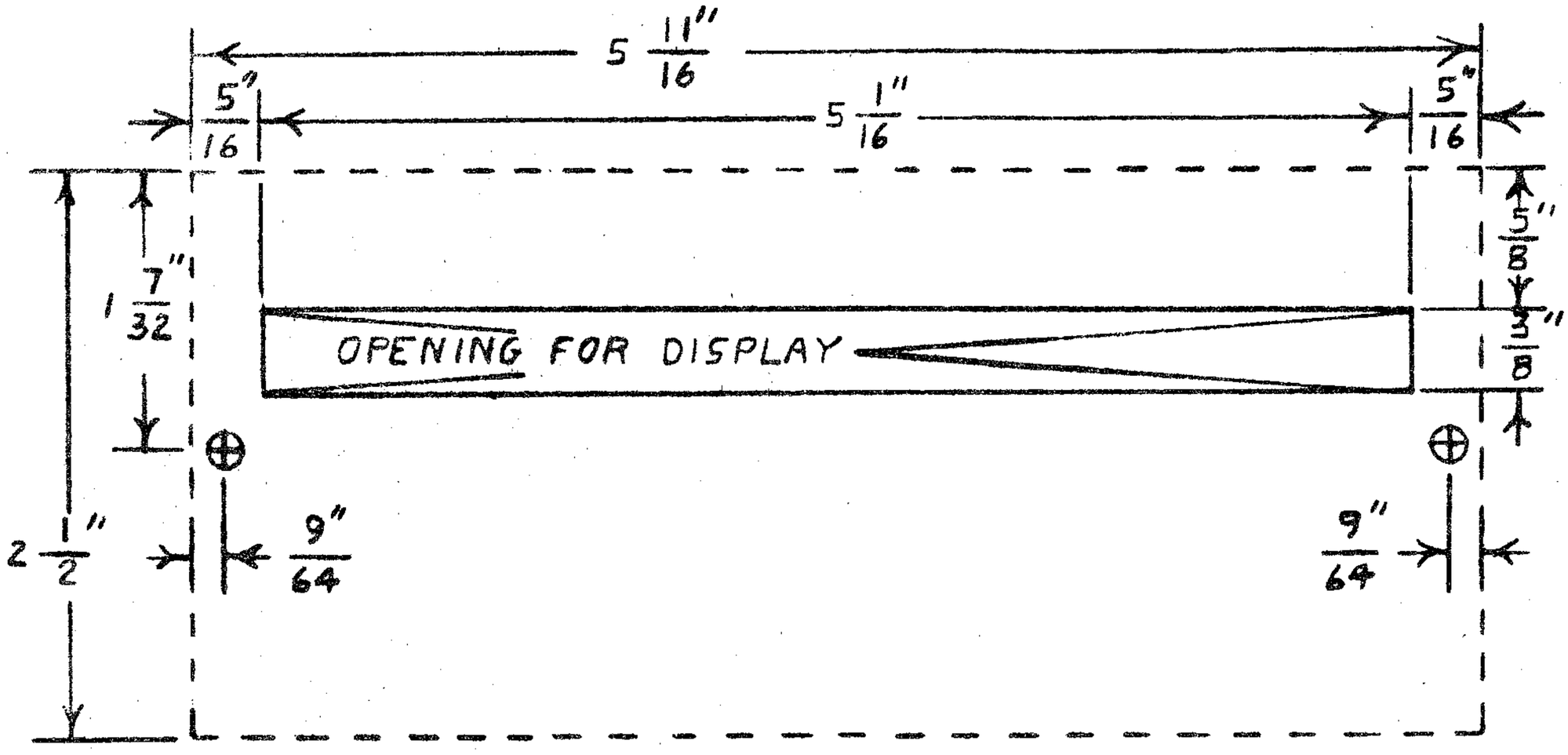
AIM DIMENSIONS

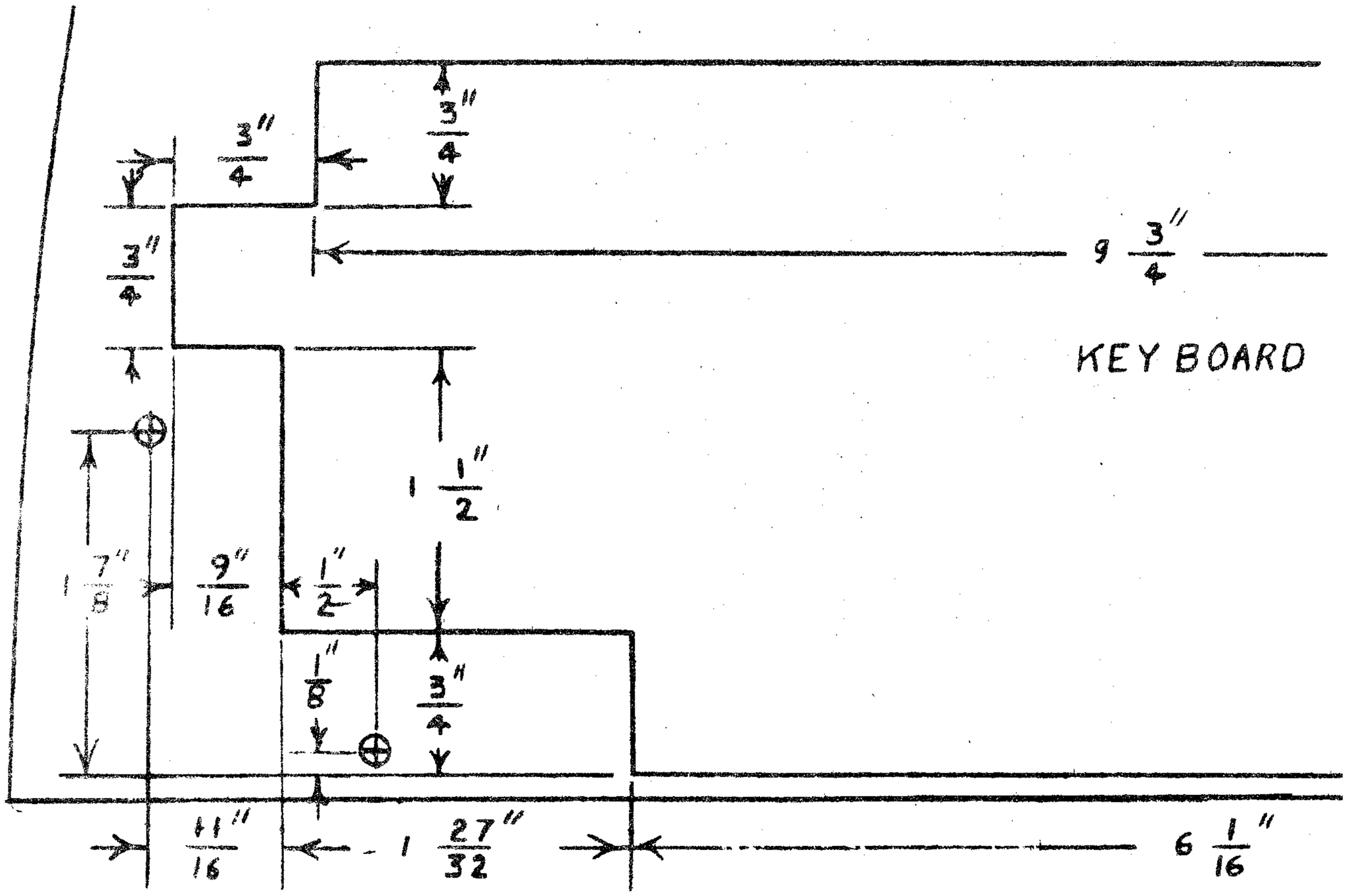
Ron Riley

On this page and the following two pages you will find dimensions for making cutouts for the major components on the Aim. The drawings on this page shows the Aim mounted in a CRT enclosure available from B&F Enterprises, Dept. K5 119 Foster ST. Peabody, MA 01960. This enclosure is used and it arrived rather dusty but cleaned up nicely. $28.88

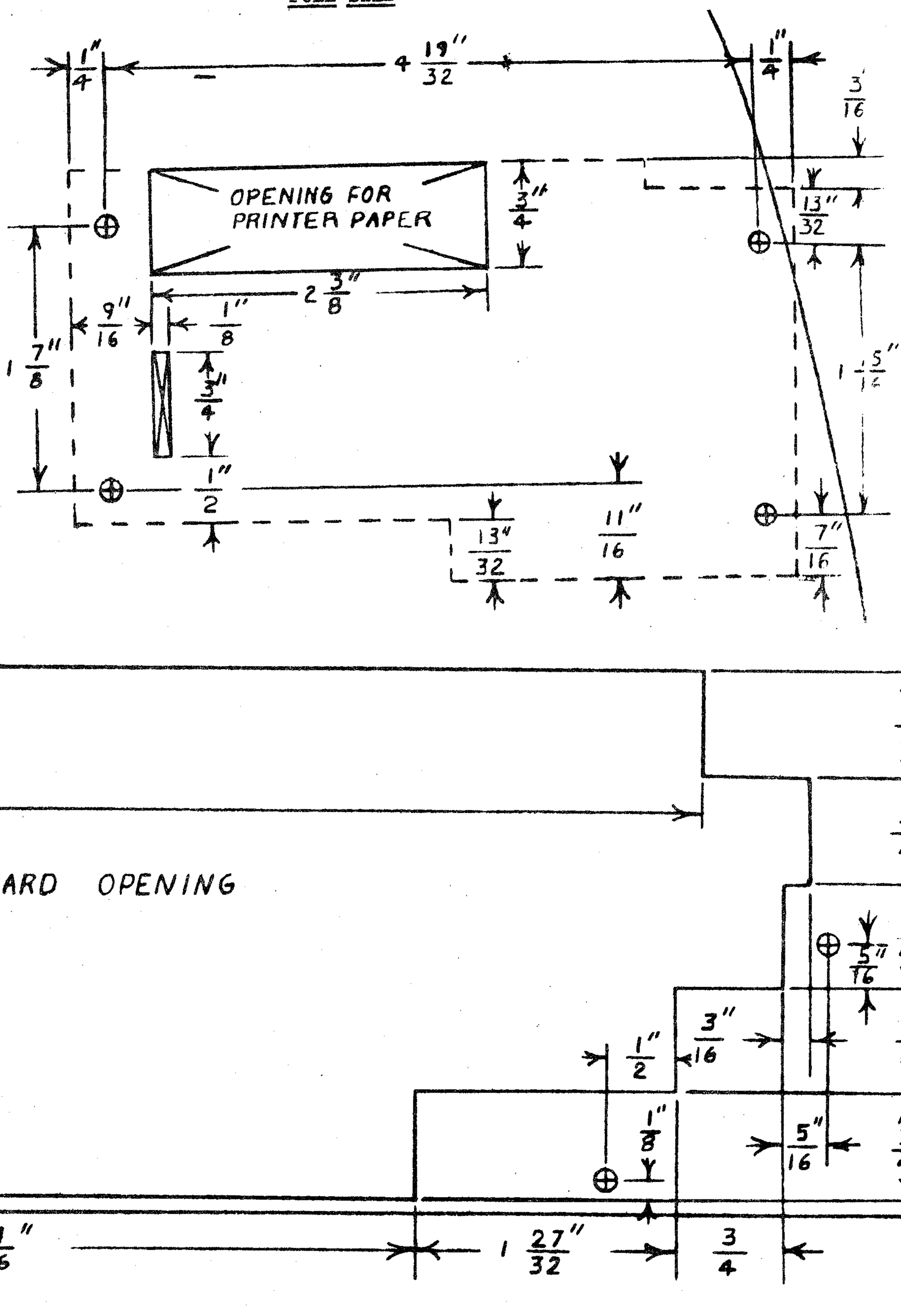


FULL SIZE


5 11/16"
5/16"
5 1/16"
5/16"
5/8"
3/8"
1 7/32"
OPENING FOR DISPLAY
2 1/2"
9/64"
9/64"


3/4"
3/4"
3/4"
3/4"
9 3/4"
KEY BOARD
1 1/2"
1 7/8"
9/16"
1/2"
1/8"
3/4"
11/16"
1 27/32"
6 1/16"

FULL SIZE


1" / 4
4 19" / 32
1" / 4
3 / 16
OPENING FOR PRINTER PAPER
3" / 4
13" / 32
2 3" / 8
9" / 16
1" / 8
1 7" / 8
3" / 4
1" / 2
13" / 32
11" / 16
7" / 16
1 5" / 16
9 3" / 4
KEY BOARD OPENING
3" / 4
3" / 4
5" / 16
3" / 4
1" / 2
3" / 16
1" / 8
5" / 16
3" / 4
6 1" / 16
1 27" / 32
3 / 4

HARDWARE PRODUCTS

The following lists contain suppliers names and addresses who supply hardware for the Aim. Software and individual parts are not included. The first list is of S-44 boards, the second is suppliers of other board configurations as well as power supplies or Aims. The third is a spotlight of motherboards and memory boards. Further description of each list will follow.

I prepared a questionaire on mother boards and memory boards and sent it to several suppliers. These suppliers are shown below with the response time for their reply. Note that I only contacted a handful. Perhaps one could use the response time for an indicator of what kind of service one could expect. I would like to single out Seawell and Micro Technology Unlimited for thier quick responses and Seawell and The Computerist for answering the questions.

RESPONSE TIMES

Seawell Marketing Inc
7 days
Micro Technology Unlimited
8 days
Excert
9 days
Measurement Systems
9 days
Forethought Products
20 days
The Computerist
20 days
Johnson Computer
22 days
Kathryn Atwood
25 days
Jade Computer
30+
HDE
70+
RNB
70+
Wasatch
70+

All boards use 44 pin edge connectors except the Kim to S-100 motherboards. The similarities begin to end when the signals on these pins are considered. Most differences are subtle but one must be familiar with hardware to determine the modifications needed. Some of the differences to consider are unregulated vs regulated power supplies, ground and +V on the right pins and are all signals that are needed available. Also some boards require placement in certain slots.

There are differences physically between the available boards also. The widths range anywhere from 12" to 4-1/2". The larger boards offer more features/bd and usually have less expansion slots.

The products offered, the costs, board availability and actual signals provided must be determined by contacting the specific supplier involved. Updates to this list are welcome.

The following describes the questions which are answered by the Spotlight List.

1 are Aim expansion signals buffered
2 what is the motherboard size
3 what signals are provided on the exp. bus
4 how many slots are provided
5 what acc. boards are available for your bus
6 are motherboard components socketed
7 is it assembled or a kit
8 price
9 comments

The following describes the questions for the memory boards.

1 board size
2 signals required
3 min.&max. memory on board
4 are components socketed
5 on what boundary may mem. be addressed
6 assembled or kit
7 price
8 comments

Electrolabs
P.O. Box 6721
Stanford, CA 94305

Kathryn Atwood Enterprises
P.O. Box 5203
Orange, CA 92667

Silver Spur
13552 Central Ave.
Chino, CA 91710

Wasatch
25 South 300 East, Suite 215
Salt Lake City, Utah 84111

Kim to S-44 adapter
rack panels
80 digital in board
4k ram (2102)
8k ram (2114)
16x64 video
8 slot motherboard pc only
card cage for above
eprom programming board
eprom holding board
40 line LED display board
40 line switch input board
audio tone decoder board
interrupt breakout board
filter for LED board
panel for switch board
32 channel analog in
19" card cage w/power supply and optional fan
proto board
data board
6502 cpu board
serial I/O board
16k ram

AIM RELATED PRODUCTS

Micro Technology Unlimited P.O. Box 4596 Manchester, NH 03108 Proto board,unbuffered motherboard,video board, eprom board,16k dynamic, d/a board	Seawell Marketing Inc P.O. Box 17006 Seattle, WA 98107 Proto board,motherboards, eprom board,96k dynamic, 16k(2114),16k(cmos)	The Computerist Inc P.O. Box 3 S. Chelmsford, MA 01824 Proto board,motherboard, eprom and ram board (2102 and 2716),video board, enclosure
RNB 2967 W. Fairmont Ave. Phoenix, AZ 85017 Proto board,motherboard, video board,eprom board 8 or 16k,2708 programmer, 16k(2114),floppy disk	Johnson Computer P.O. Box 523 Medina, OH 44256 HDE line,Kim to S-100, Kim-4,video board,8k (2102),eprom board,RNB line,Computerist and MTU line	Advanced Computer Products 1310 E. Edinger Santa Ana, CA 92705 Aim 65,Kim-3,Kim-4, enclosure,proto board, Computerist line
Ancrona P.O. Box 2208P Culver City, CA 90230 Aim 65,power supplies	Riverside Electronics Design 1700 Niagara St. Buffalo, NY 14207 Kim to S-100,video board	Measurements Systems 867 N. Main St. Orange, CA 92668 16k or 32k
Plainsman Micro Systems P.O. Box 1712 Auburn, AL 36830 HDE line,Kim-4, Computerist line	Forethought Products 87070 Dukhobar Eugene, OR 97402 Kim to S-100	Aresco P.O. Box 43 Audubon, PA 19407 HDE line,eprom board
Synertek 3001 Stenderway MB 33 Santa Ana, CA 95052 Video with keyboard	Hudson Digital Electronics P.O. Box 120 Allamuchy, NJ 07820 Motherboard,8k ram, disk system	Excert Inc 4434 Thomas Ave. S. Minn., MN 55410 Aim 65,power supply, Computerist and Seawell line
Quest Electronics 2322 Walsh Ave. Santa Ana, CA 95050 Aim 65	Circuit Power Inc 808 Bremerton Dr. Sunnyvale, CA 94087 Power supply	Rockwell International Anaheim, CA Aim 65,Aim to System 65, Aim to Kim-4
Jade Computer Products 4901 W. Rosecrans Hawthorne, CA 90250 Power supply,Aim 65, 8k ram (2114),Kim to S-100 Computerist line	Newman Computer Exchange 1250 N. Main St. Ann Arbor, MI 48104 Aim 65,enclosure,video board,Kim to S-100	A B Computers 115 E. Stump Rd. Montgomeryville, PA 18936 Some Computerist and Seawell line

EXPANSION BOARDS

Seawell Marketing
1 yes
2 11 3/4 x 9 1/2
3 address,gnd,sync, rdy,irq,-15,nmi, rst,data,ex clk, +15,dma,+8,Ø1,Ø2, r/w,bank select
4 4+1
5 16k (2114)
16k cmos
96k dynamic
eprom prgmr and board(2758,2716, 2516)
6 see comments
7 assembled
8 $139($189w/4k)
9 4k of ram on board socketed, the"+1 is intended for separate mother board with 10 sockets,on board hardware for expansion to 128k

The Computerist
1 yes
2 7 x 11(aprox.)
3 Address,data,r/w, Ø2,dma,irq,nmi,rdy, decode for Kim
4 5
5 see comments
crt board
proto board
6 all ICs socketed
7 assembled
8 $80
9 a memory board with 8k ram,8k eprom and a 6522 i/o

Forethought Products
1 yes
2 n/a
3 S-100
4 8
5 static ram
dynamic ram
eprom
video
6 socketed
7 kit or assembled
8 $125k or 165a
9 ICs must be added to use with Aim

Micro Technology Unlimited
1 see comments
2 11-1/4 x 4-3/4
3 n/a
4 4+1
5 visible memory
eprom-i/o
16k dynamic
proto
music board
6 sockets provided
7 kit or assembled
8 up to $95
9 Aim mounting bracket places keyboard on slant, acc brds use LS technology so no buffering needed

RNB
1 yes
2 n/a
3 address,data,r/w, sync,rdy,irq,nmi, Ø2,rst,bd select, -12,+8,+5,gnd
4 8
5 16k ram
eprom prgmr
eprom board
proto board
6 n/a
7 assembled
8 $129

[redacted]
Memory Boards

Seawell Marketing
1 6-7/8 x 10
2 address,data,Ø1,r/w, bank select
3 16k
4 memory only
5 8k boundary
6 assembled
7 $325

The Computerist
1 8 x 11
2 address,data,Ø2,r/w
3 8kram provided, up to 8k eprom
4 yes
5 8k boundary
6 assembled
7 $200
8 on board prgmr

MEMORY BOARDS

Forethought Products
1 S-100
2 S-100
3 8,16,24k static
8,16,24,32k dynamic
4 n/a
5 n/a
6 n/a
7 from $139 to $329
8 dynamic is expandable in 8k blocks

Micro Technology Unlimited
1 7-1/2 x 11
2 n/a
3 16k
4 n/a
5 4k boundary
6 kit or assembled
7 $60 bare board
$340 assembled
8 visible may be used as memory

RNB
1 n/a
2 address,data,r/w,Ø2,
3 8 or 16k
4 yes
5 8k boundary
6 assembled
7 $239 with 8k
$379 with 16k

Measurement Systems and Control
1 6-3/4 x 4-1/2
2 address,data,Ø2,r/w
3 32k
4 yes
5 4k boundary
6 kit or assembled
7 $50 bare board
" " with hard to get parts
$495 fully assembled

Silver Spur
1 4-1/2 x 7
2 address,data,Ø2,r/w
3 see comments
4 n/a
5 4k boundry
6 see comments
7 $50 bare board
$135 bare & hard to find parts
$265 everything except 4116 rams
$450 incuding 32k of ram

E.D. REVISITED

The Enhanced Disassembly to the User Via contained a couple of errors and it also deserves some further comments. A last minute change in the listing was not made to the text. References to JMP EOBF should be JMP E182.

There are at least three problems which come to light when trying to use DILINK (A406 and A407). The first two involve the handshake portion starting at 0026. As I have the program coded I do check to see if the external device accepted the data but if the device didn't return an accepted signal the Aim will be executing a continuous loop until the end of time. The second problem arises when an Aim user presses the reset switch and the Via status is changed. This problem too, causes the continuous loop. The solution to these two problems can take two different courses. The first would be to totally ignore the handshake by placing NOP's between 0026 and 002C. This is a simple and quick way around the problem.

The second course provides a delay before checking the appropriate bit. Perhaps after the delay has expired one could try again to write to the Via. If this attempt fails an error message would be generated. (NOTE that the error message might use this routine also so there would be a considerable delay in outputing the message). Whatever course is taken one must always continue on to EF05.

The final problem is the biggest. The STEP/RUN switch causes a non-maskable interrupt when switched to STEP. The interrupt occurs only with addresses below A000. The routines I have provided reside in this area that will be interrupted. The effects of this continuous interrupting can be seen by examining 0100 and up after putting the switch in the STEP position while in the enhanced mode. There will be a definite repeating of data.

The solutions here involve some hardware modifications. The first would be to modify the range of addresses that a NMI is generated. The second would be to decode one of the holes in the Axxx range.to provide a section of safe ram.

BASIC HINTS

Ron Riley

Some Basic Hints

It is necessary to set the tape gap to $80 prior to using the SAVE in Basic. To do this type,

POKE 41993,128 -then "Return"

To use the User VIA from basic use table 8-1 on page 8-5 of the user's manual and the PEEK and POKE commands and the following conversion table.

A000=40960	A008=40968
A001=40961	A009=40969
A002=40962	A00A=40970
A003=40963	A00B=40971
A004=40964	A00C=40972
A005=40965	A00D=40973
A006=40966	A00E=40974
A007=40967	A00F=40975

Examples,

To program the user ports (A or B) to have all bits in or out.

PORT	DIRECTION	COMMAND
A	IN	POKE 40963,0
B	IN	POKE 40962,0
A	OUT	POKE 40963,255
B	OUT	POKE 40962,255

To get a value from a port use PEEK.
To put a value in a port use POKE.

Port A=40960 Port B=40961

```
5 REM STATEMENT 10 SETS UP PORT A&B AS
  INPUTS
10 POKE40962,0:POKE40963,0
15 REM STATEMENT 20 WAITS UNTIL PIN 14
  OF THE APPLICATION
16 REM CONNECTOR IS GROUNDED
20 WAIT40961,1,1
25 REM WHEN PIN 14 IS GROUNDED STATEMENT
  30&40 ARE EXECUTED
30 PRINT"PORT A BIT 0 IS LOW"
40 END
```

To turn the printer off in Basic
POKE 42001,128
To turn it on
POKE 42001,0

PRODUCT ANNOUNCEMENT

PRODUCT ANNOUNCEMENT

Excert, Inc. of 4434 Thomas Ave.S., Minneapolis, MN 55410 offers several Aim 65 Systems of interest to users. Excert configures systems with products from The Computerist and Seawell Marketing and guarantee that their products are compatible. One possible configuration might include an Aim 65 with 4K of ram, Basic, an enclosure, a power supply and 16K of ram. Other combinations might include a video board or an 8K ram, 8K prom board instead of the 16K board.

FOR SALE OR TRADE

FOR SALE or TRADE

I have 4 Phi-Decks with the motion control electronics boards. These are new units. I would like to sell them all for $400 or $125 each. I will consider trading them for other equipment such as a S.D. Sales memory board, a Kim, Kim 4, etc. I have decided to use a disk system instead and that is why I want to sell them.

Ron Riley
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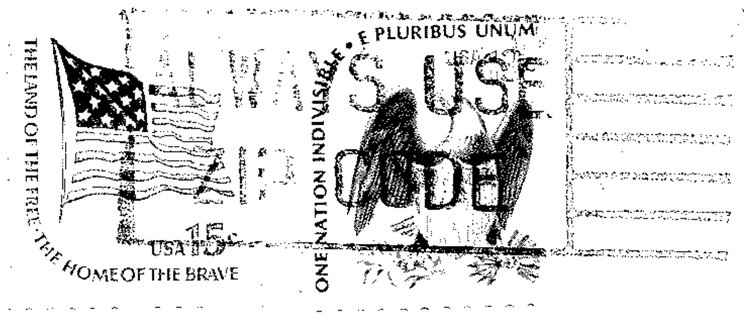

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