

KIM User manual Errata Sheets and Application Notes

During 1975 and 1976 MOS Technology send out letters to customers

In this document are contained:

- Errata sheet #1
- Errata sheet #2
- Errata sheet #2A
- Errata sheet #3
- Application Note #1
- 1 ms “False Start” Eliminator
- EngineeringHints &Kinks ASR33 To KIM
- Clock circuit modification

MOST TECHNOLOGY, INC.

VALLEY FORGE CORPORATE CENTER (215) 666-7950
950 RITTENHOUSE ROAD, NORRISTOWN, PA. 19401

January 26, 1976

Dear KIM-1 Customer:

Despite our best efforts to eliminate errors in the documentation for your KIM-1 system, we have discovered a series of typographical errors which should be corrected in your KIM-1 User Manual. The attached Errata Sheet #1 should be used immediately to update your Manual since some of the errors will interfere with your early attempts to demonstrate correct system operation.

We will continue to advise you of any further errors or changes needed in your documents. We actively seek your cooperation in advising us of any problems you may discover in the system or its documentation.

Thank you,

MOS TECHNOLOGY, INC.
KIM-1 Customer Support

ea.

January 26, 1976

ERRATA SHEET #1

Please modify your KIM-1 User Manual to correct the following typographical errors:

Page 11 - At the bottom of the page, add step 22A between steps #22 and #23 as follows:

<u>Press Keys</u>	<u>See On Display</u>	<u>Step #</u>
<u>/+ /</u> <u>0 /</u> <u>3 /</u>	0001 03	22
<u>/+ /</u>	0002 18	22A
<u>/G0 /</u>	0005 xx	23

This correction insures that the program will begin at the proper address (0002).

Page 14 - In the center of the page, in step #2 of the key sequence, change the address to 17F5 (instead of 17F4). The correct key sequence will now appear as:

<u>Press Keys</u>	<u>See On Display</u>	<u>Step #</u>
<u>/AD /</u>	xxxx xx	1
<u>1 /</u> <u>7 /</u> <u>F /</u> <u>S /</u>	17F5 xx	2
<u>/DA /</u> <u>0 /</u> <u>0 /</u>	17F5 00	3
<u>/+ /</u> <u>0 /</u> <u>0 /</u>	17F6 00	4
<u>/+ /</u> <u>1 /</u> <u>0 /</u>	17F7 10	5
<u>/+ /</u> <u>0 /</u> <u>0 /</u>	17F8 00	6
<u>/+ /</u> <u>0 /</u> <u>1 /</u>	17F9 01	7
<u>/AD /</u>	17F9 01	8
<u>1 /</u> <u>8 /</u> <u>0 /</u> <u>0 /</u>	1800 xx	9

Also, change the references in the third and fourth sentences below the key sequence so that "17F4 and 17F5 (Steps 1 to 4)" now reads "17F5 and 17F6 (Steps 1 to 4)". In the last two sentences on Page 14, change the references to read:

" " " " in locations 17F7 and 17F8 (Steps 5,6).
Finally, we pick an arbitrary ID as 01 and store this value at location 17F9 (Step 7).

Errata Sheet #1 (Continued)

Page 2

Page 15 - At the bottom of the page, in step #2 of the key sequence, change the selected address to 00F9 (instead of 00F8). The correct key sequence will now appear as:

<u>Press Keys</u>	<u>See On Display</u>	<u>Step #</u>
<u>AD</u>	xxxx xx	1
<u>1</u> <u>7</u> <u>F</u> <u>9</u>	17F9 xx	2
<u>DA</u>	17F9 xx	3
<u>0</u> <u>1</u>	17F9 01	4
<u>AD</u>	17F9 01	5
<u>1</u> <u>8</u> <u>7</u> <u>3</u>	1873 xx	6
<u>GO</u>	(Dark)	7

Page 47 - At the top of the page, change the indicated data stored at locations 00F4 and 00F5 as follows:

00F4 Y Index Register
00F5 X Index Register

Page E3 - In Figure E-1, in the lower figure showing 1 record, add the * character in the blank box (after the area designated "100 SYN").

MOST TECHNOLOGY, INC.

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February 12, 1976

Dear KIM-1 Customer:

With the help of our customers, we are continuing to advise you of corrections required in your KIM-1 documentation. The attached Errata Sheet #2 should be used to update your KIM-1 User Manual.

The first of our Application Note series is included, as well, to advise you of special subjects or problems pointed out to us by KIM-1 customers. We feel that all of our customers should be appraised of these matters as quickly as possible.

Thank you,

MOS Technology, Inc.
KIM-1 Customer Support

MOST TECHNOLOGY, INC.

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March 1, 1976

Dear KIM-1 Customer:

The attached Errata Sheets are hopefully the last group of corrections required to eliminate errors in your KIM-1 User Manual. Please take the following actions:

Errata Sheet #2A - please discard the previously submitted Errata Sheet #2 and replace it with the new issue (#2A). Additional errors were discovered in the address and key sequences for the paper tape punch procedure.

Errata Sheet #3 - please mark your KIM-1 User Manual to indicate the new series of corrections contained in this sheet.

In general, if you have not already done so we recommend strongly that you use an appropriate colored felt tip pen to mark your KIM-1 User Manual in accord with all Errata Sheets. This has the twofold effect of insuring that you have noted each error and that you will have an updated document should you mislay the Errata Sheets.

Thank you,

MOS Technology, Inc.
KIM-1 Customer Support

ea

MOST TECHNOLOGY, INC.

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March 1, 1976

Dear KIM-1 Customer:

The attached Errata Sheet #3 should be used to eliminate additional errors discovered in the documentation for your KIM-1 System. Please mark your KIM-1 User Manual to reflect these changes.

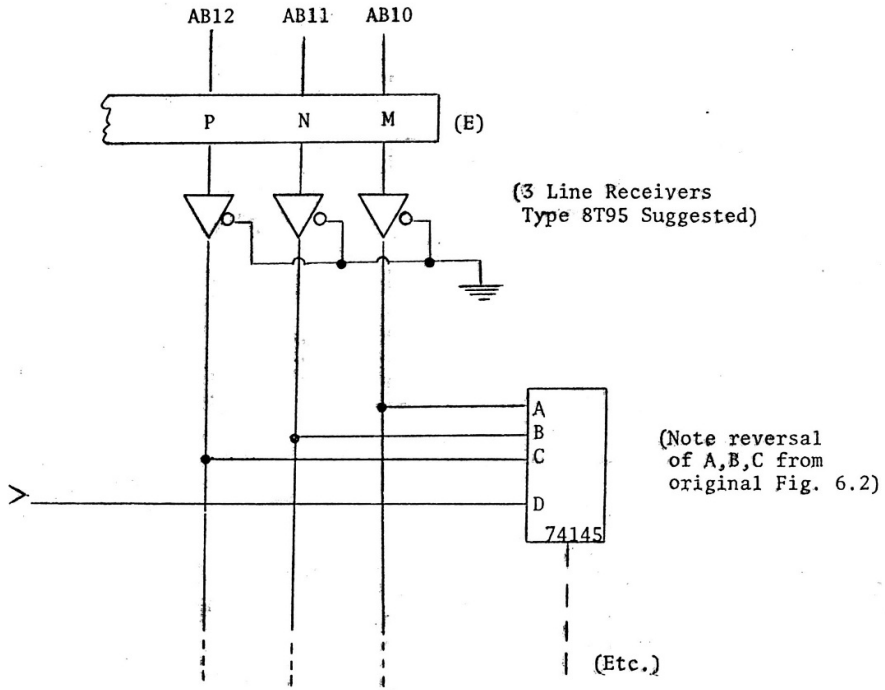
Thank you,

MOS Technology, Inc.
KIM-1 Customer Support

ea

KIM-1
Errata Sheet #3

- Page 18 - In Fig. 2.4:
Remark Pin A-R (Printer Return) to be A-S
Remark Pin A-S (Keyboard Return) to be A-R
- Page 30 - On left side of Fig. 3-7, remark to show "Peripheral Bus to 6530-002" (not 6530-003).
- Change TTY data pin from PB7 to PA7
- Page 39 - Change last two entries in Fig. 3.13 to show:
17F7 as EAL (not 17F8)
17F8 as EAH (not 17F9)
- Page B-1 - CR5 is shown reversed on the layout diagram. The cathode of CR5 is to your left when correctly installed.
- Page D-1 - Remove decimal point before + 5v, 1.2A designation (Not +.5v; 1.2A)
- Resistor in +12 supply should read 1 Ω (not .47 Ω).
- Page E-3 - In the waveform for the "1 Bit", in the middle group, change to show 6 pulses (not 9).
- Page C-2 - in the fourth line from the top, change to Pin A-P (not A-B).
- Page 74 - the schematic of Fig. 6.2 should be changed to show a more commonly available non-inverting line receiver. Also, the connections to the decoders (74145) should be corrected as shown in the diagram on the following page:



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February 12, 1976

KIM-1 APPLICATION NOTE #1

A number of KIM-1 customers have reported difficulty in achieving correct results for the sample problem shown in Sec. 2.4 of the KIM-1 User Manual. In addition, some customers have experienced problems in recording or playback of audio cassettes. (Sec. 2.5 of the KIM-1 User Manual). In all cases, the problems have been traced to a single cause: the inadvertant setting of the decimal mode.

The 6502 Microprocessor Array used in the KIM-1 system is capable of operating in either a binary or decimal arithmetic mode. The programmer must be certain that the mode is selected correctly for the program to be executed. Since the system may be in either mode after initial power-on, a specific action is required to insure the selection of the correct mode.

Specifically, the results predicted for the sample problem (Sec. 2.4) are based on the assumption that the system is operating in the binary arithmetic mode. To insure that this is the case, insert the following key sequence prior to the key operations shown at the bottom of Page 11:

AD
0 0 F 1
DA 0 0

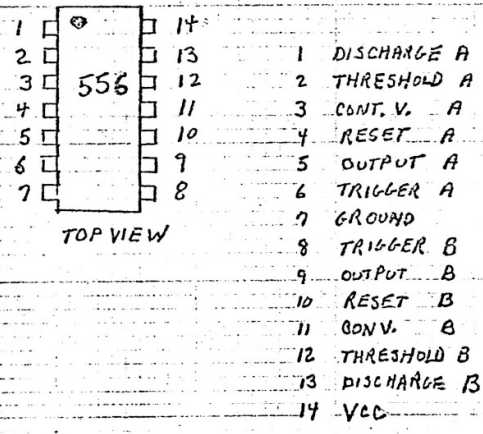
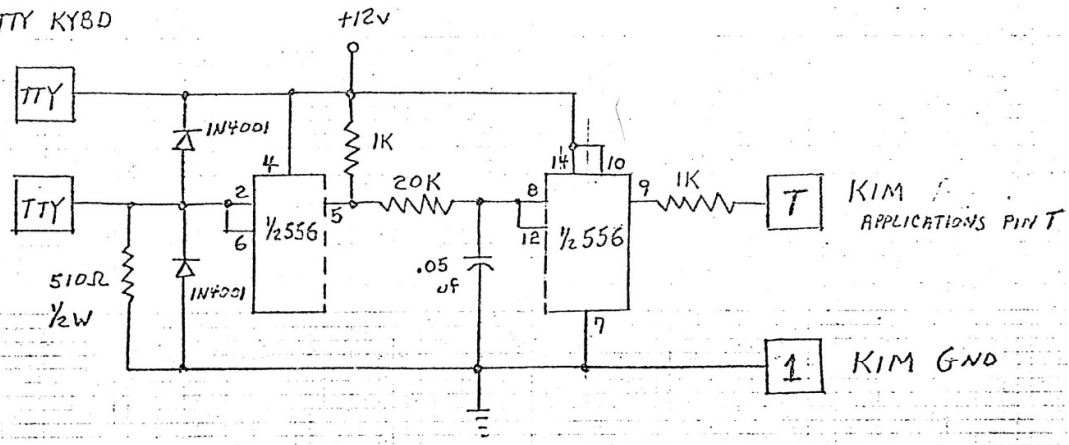
This sequence resets the decimal mode flag in the Status Register prior to the execution of the sample program.

The same key sequence may be inserted prior to the key operations shown on pages 14 and 15 for audio cassette recording and playback. These operations will not be performed correctly if the decimal mode is in effect.

In general, whenever a program is to be executed in response to the GO key, the programmer should insure that the correct arithmetic mode has been set in the status register (00F1) prior to program execution.

APPLICATION			REVISIONS			
NEXT ASSY	USED ON	LTR	DESCRIPTION	DATE	APPROVED	

FROM
TTY KYBD

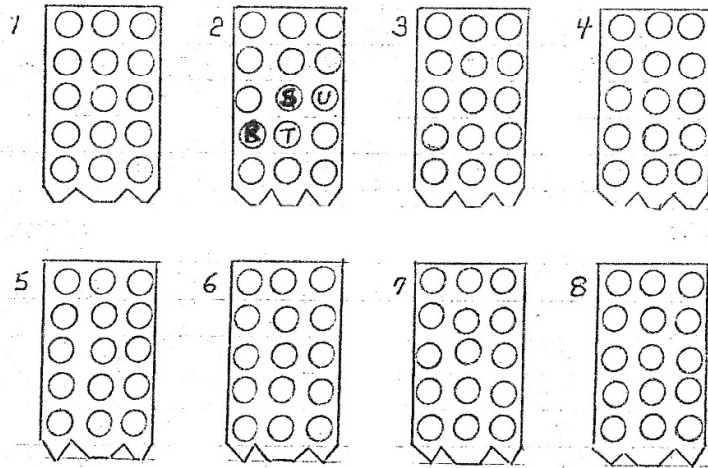


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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANG + + + - - -	APPROVAL	DATE		
	ENG			
	DWN		TITLE 1MS "FALSE START" ELIMINATOR	
MATERIAL: 4 RESISTORS 1 CAPACITOR 2 DIODES (1N4001) 1 IC (LM 556)	CHX'D		SIZE	DRAWING NO.
	APPROVED		A KIM	
			SCALE	SHEET OF



CONN #2 To KIM-1 PINS SHOWN



REAR VIEW

ASR 33 WITH

8-BLOCK MOLEX[®]

CONNECTORS.

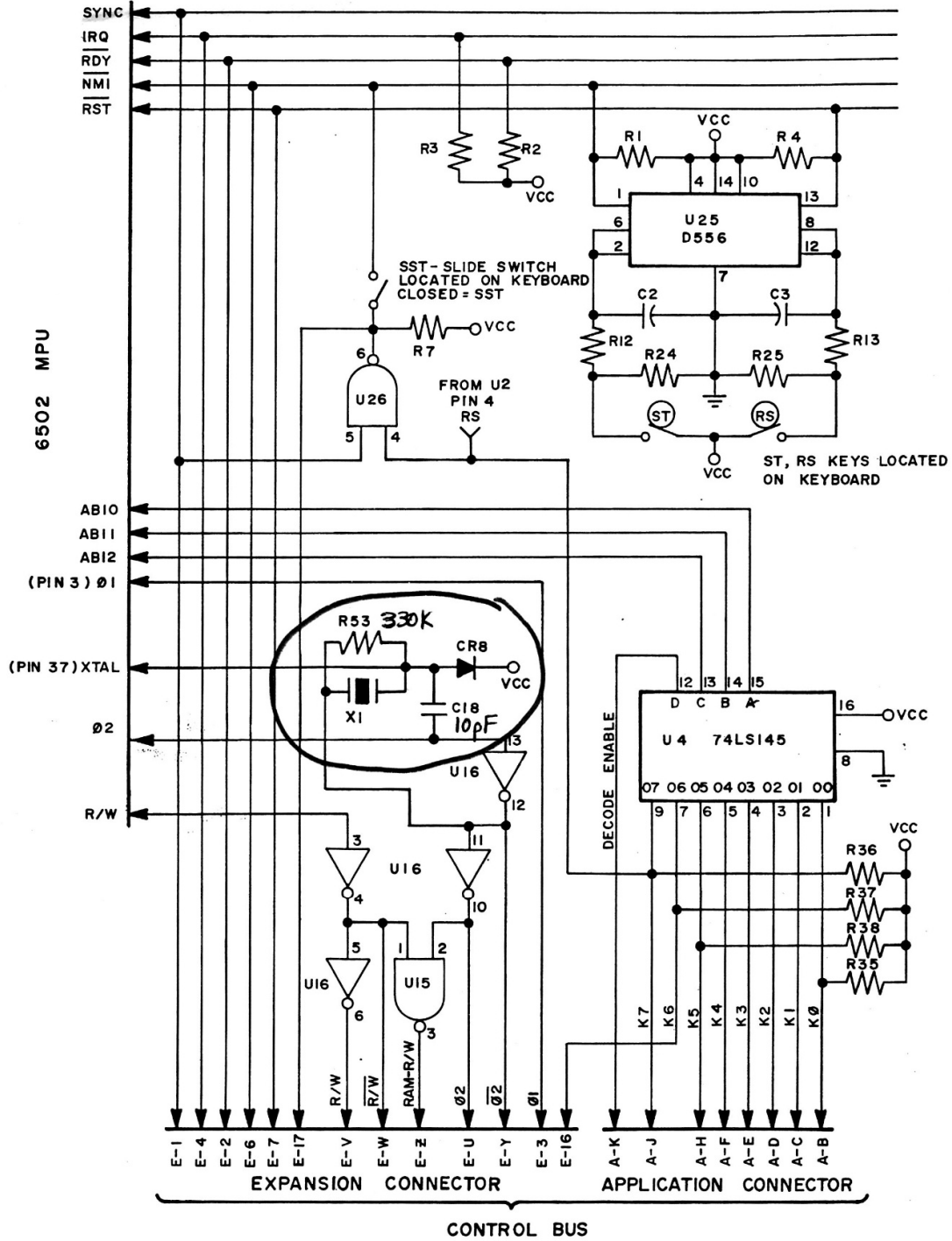
(TYPICAL OF THOSE

RENTED FROM RCA ETC.

MAKE SURE ASR 33 IS STRAPPED

FOR 20 MA CURRENT LOOP!

2/12/76, JM



Control and Timing
FIGURE 3.3