



# Tech Info Library

## Apple II Hardware: Errata in Apple II Reference Manual (1 of 2)

Page 4

Because of continuing cost reductions on 16K RAMs, current revisions of the Apple II accept only 16K RAMs.

Page 7

Table 2, the backspace key are reversed.

->	\$95	\$95	\$95	\$95
<-	\$88	\$88	\$88	\$88

Page 9

2nd Paragraph, the pins carrying the video signals are referred to as being on the left side of the board. They are on the RIGHT.

Page 10

The photograph refers to a Revision 6 Apple. Revision 7 and later Apples will look slightly different.

Page 10

The Eurapple modification is not complete and we do not support or recommend modification of Apples for European television signals.

Page 11

The photograph refers to a Revision 6 Apple. Revision 7 and later Apples will look slightly different.

Page 23

The photograph refers to a Revision 6 Apple. Revision 7 and later Apples will look slightly different.

Page 25

First paragraph, line 4; The address is actually \$C040 instead of \$C04F.

Page 31

Paragraph 3, line 3, "the leftmost column" should read "the rightmost column"

Page 31

Table 11 should read:

LEFT EDGE	32	\$20	0/	0/39	\$0/\$	0/\$27
-----------	----	------	----	------	--------	--------

WIDTH	33	\$21	0/39/39	\$0/\$27/\$27
TOP EDGE	34	\$22	0/ 0/23	\$0/\$ 0/\$17
BOTTOM EDGE	35	\$23	0/24/24	\$0/\$18/\$18

Page 35

ESC E "When COUT detects this" should read "When RDKEY detects this"

Page 36

The Autostart ROM initializes the annunciators 0 and 1 to OFF and annunciators 2 and 3 to ON.

Page 37

Paragraph 5 refers to using call -1169 to set \$3F4 to XOR of \$3F3 in autostart reset vector. This may garbage the diskette in drive 1 if used on a non-autostart system.

-) and the forward copy key (-

Page 47

The line of monitor command just under the first paragraph should read

```
*0:FF FF AD 30 C0 88 D0 04 C6 01 F0 08
*:CA D0 F6 A6 00 4C 02 00 60
```

Page 70

Paragraph 2, the page 3 memory usage chart is actually on page 65 of the manual instead of page 62.

Page 70

RAM Configuration Blocks are not included on Revision 7 and later Apple boards.

Page 74

The Zero Page memory maps are incomplete. Applesoft also uses \$D6 and Applesoft HIGH-RES uses \$19 to \$1D.

Page 79 Table 22

The line for \$C060 should be

	\$0	\$1	\$2	\$3	\$4	\$5	\$6	\$7
\$C060	cin	pb0	pb1	pb2	gc0	gc1	gc2	gc3

Page 81

Paragraph 3 recommends IOSAVE and IORESTORE. These routines must be used with caution because if any other routine in the system uses them, they will overwrite your information. The 6502 stack is a better place to save the registers.

Page 84

Expansion ROM, paragraph 3, This flip-flop should be turned on by the I/O SELECT signal, not the DEV SEL signal.

Page 89

The photograph refers to a Revision 6 Apple. Revision 7 and later Apples will look slightly different.

Page 89

The pointer to the USER 1 jumper is wrong. See the photograph on page 99 for the correct location.

Page 90 Paragraph 5

RDY, RES, IRQ, NMI lines are held high by a 1000 ohm resistor, NOT 3300 ohm.

Page 91

Data from 6502 (read) and Data to 6502 (write) are reversed.  
They should be:

Data from 6502 (write)  
Data to 6502 (read)

Page 96

Paragraph 4, line 5, the 74LS283 is at location E14.

Page 100

The Apple's new built-in keyboard is built around a AY-5-3600 keyboard encoder. The inputs to this ROM, pins 17 through 26 and 36 through 40, are connected to the matrix of keyswitches on the keyboard. The outputs of this ROM are buffered by a 74LS04 and are connected to the Apple keyboard connector.

The keyboard decoder rapidly scans through the array of keys on the keyboard, looking for one that has been pressed. This scanning action is controlled by the free running oscillator made up of three sections of a 74LS00 at location B3 on the separate encoder board. The speed of this oscillation is controlled by C7, R7 and R8 on the encoder board.

Apple Tech Notes

Keywords: <None>

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