SYSTEM 80 KITSET INSTRUCTIONS

CLOCK SPEED UP

1/ Remove cover.
2/ Disconnect and remove keyboard unit- handle connecting cable carefully.
3/ Disconnect CPU board from interface board- again handle connecting cable carefully.
4/ Disconnect power cable from CPU board then remove CPU board.

Underneath CPU Board
1/ Cut trace from pin 8 of Z38.
2/ Connect pins 12 and 13 of Z39.

On Component Side of CPU Board
1/ Take a 74LS74 and cut off pins 5 and 8 to 13.
2/ Piggyback the 74LS74 (Z40A) on top of Z40. Solder pins 4,7 and 14. Bend out pins 1,2,3 and 6.
3/ Take a 74LS157 and cut off pins 5 to 7 and 9 to 14.
4/ Piggyback the 74LS157 (Z24A) on top of Z24. Solder pins 8,15 and 16. Bend out pins 1 to 4.
5/ Cut trace from pin 5 of Z40.
6/ Connect a 2K2 ohm resistor from pin 14 to pin 2 of Z40A.
7/ Connect pin 3 of Z16 to pin 3 of Z40A.
8/ Connect pin 1 of Z40A to pin 14 of Z40A.
9/ Connect pin 6 of Z40A to pin 1 of Z24A.
10/ Connect pin 2 of Z37 to pin 4 of Z24A.
11/ Connect pin 8 of Z38 to pin 3 of Z24A.
12/ Connect pin 11 of Z38 to pin 2 of Z24A.

Mount switch on case and connect one side to pin 7 of Z40 and the other to pin 2 of Z40A.

Reassemble system and test

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Refer attached for alternative circuit using 74LS00 instead of 74LS157. The 74LS00 is mounted on top of Z39 (more compact).

Z 39A

74LS125

+5v

Z 38

74LS92

Z 37

11

2   14   3

8   5   6

1

7

4

zero

4.7 K

+

Z 16

2

3

1   14

CLR   VCC

D   Z40A   Q   5

74LS74

CLK   Q̄   6

PR   GND

4

+

zero

Fast

slow

Z 40   5   X   12   Z 39

cut

add

13

ZL2AST's circuit
for clock speed-up.
(Unlike Gilbert's which
doesn't work in some
machines, this one
seems to work.)