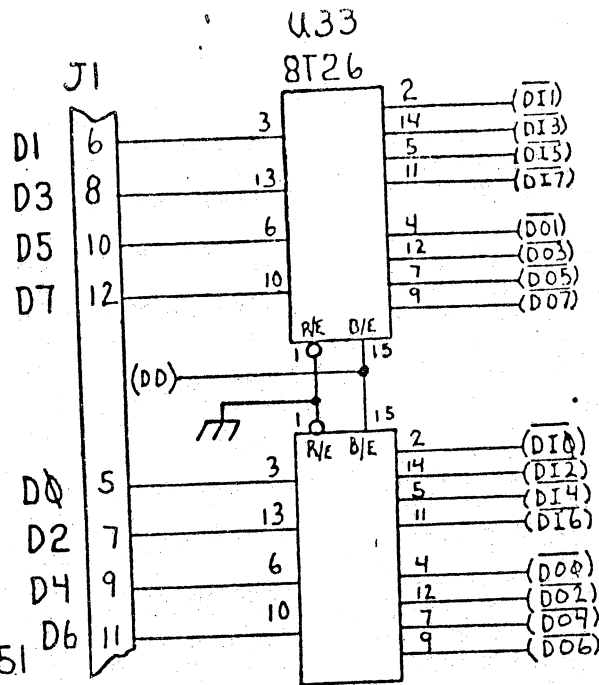
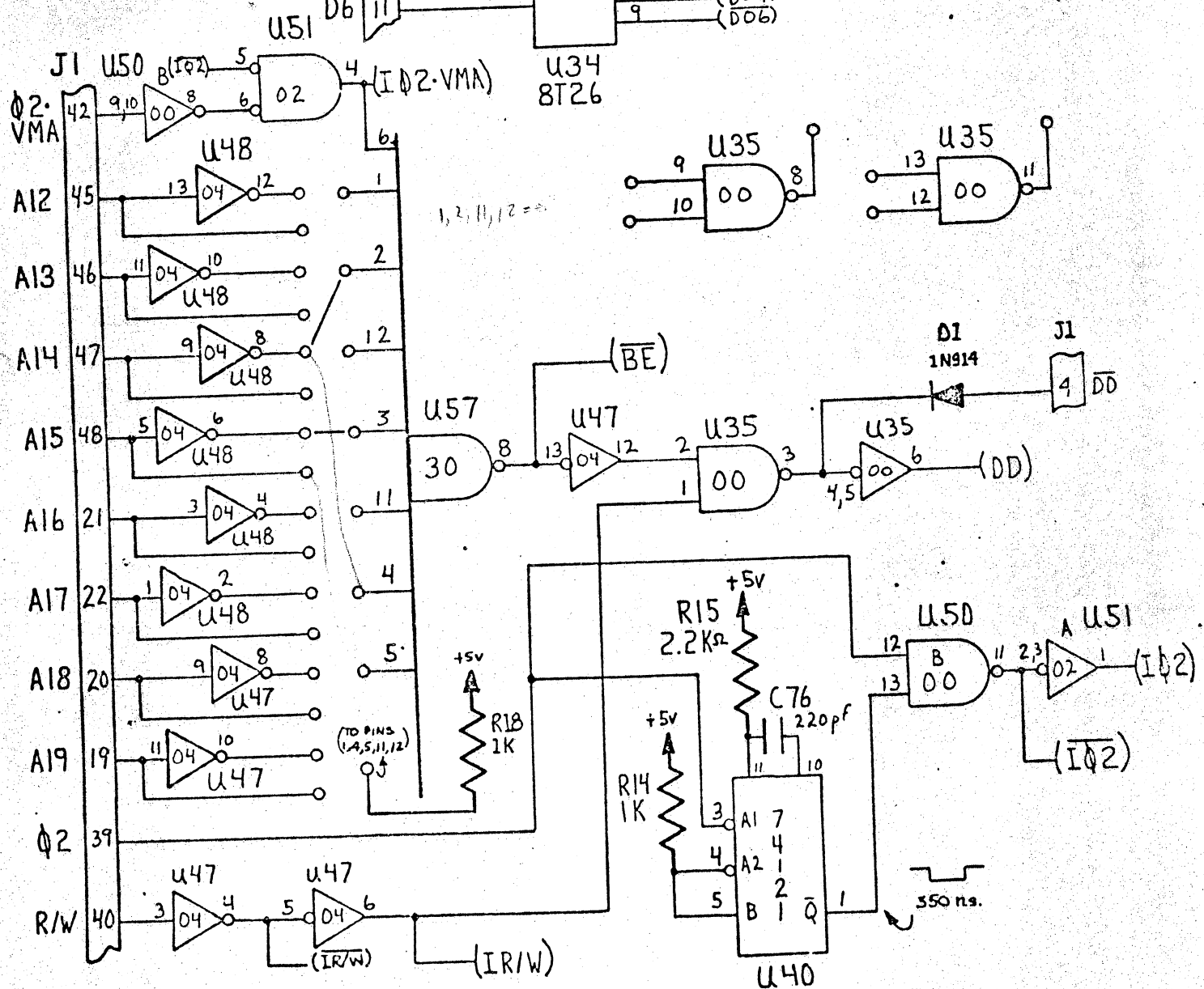


MODEL 530C - SCHEMATICS

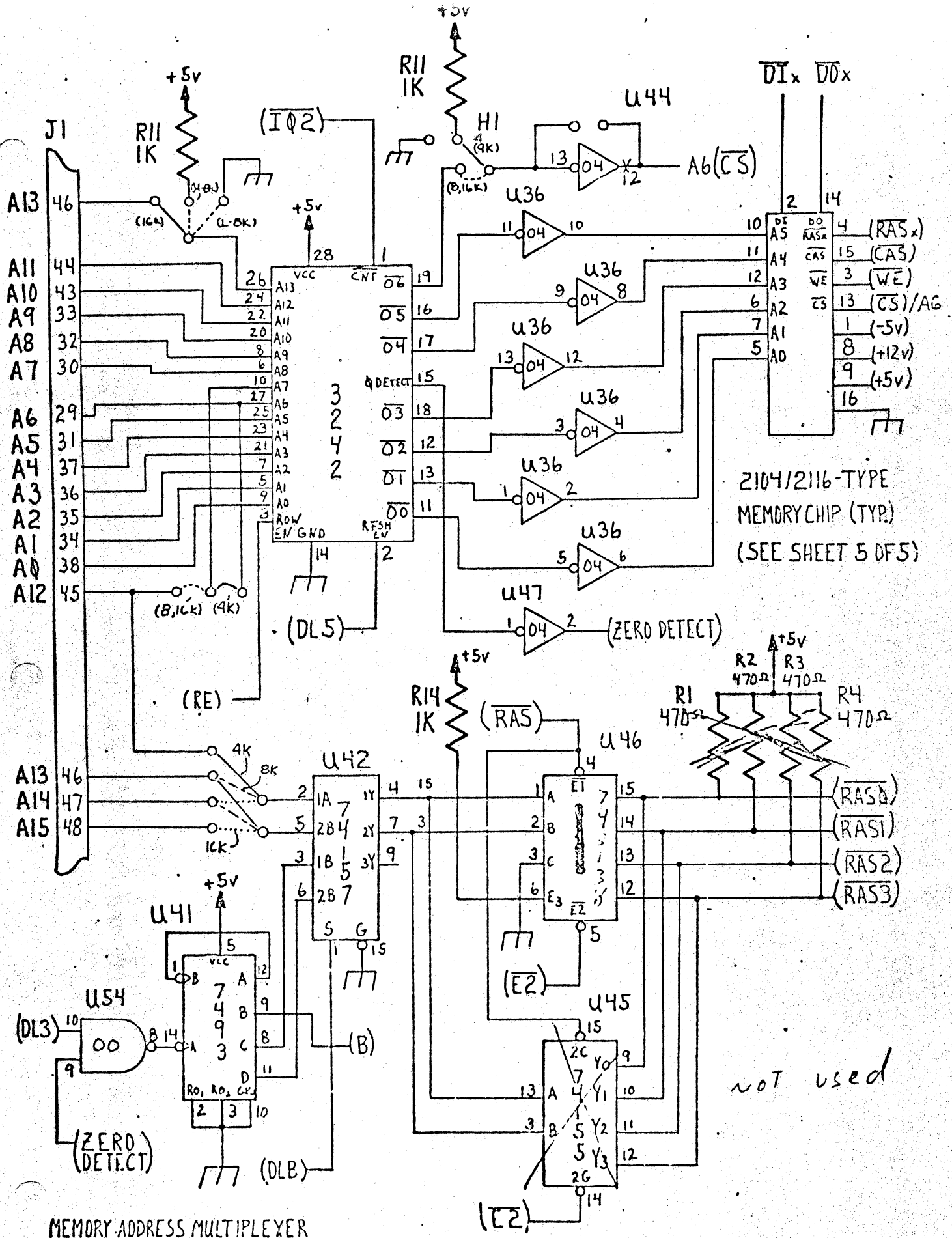
REV B	5 APR 1978
REV A	3 APR 1978



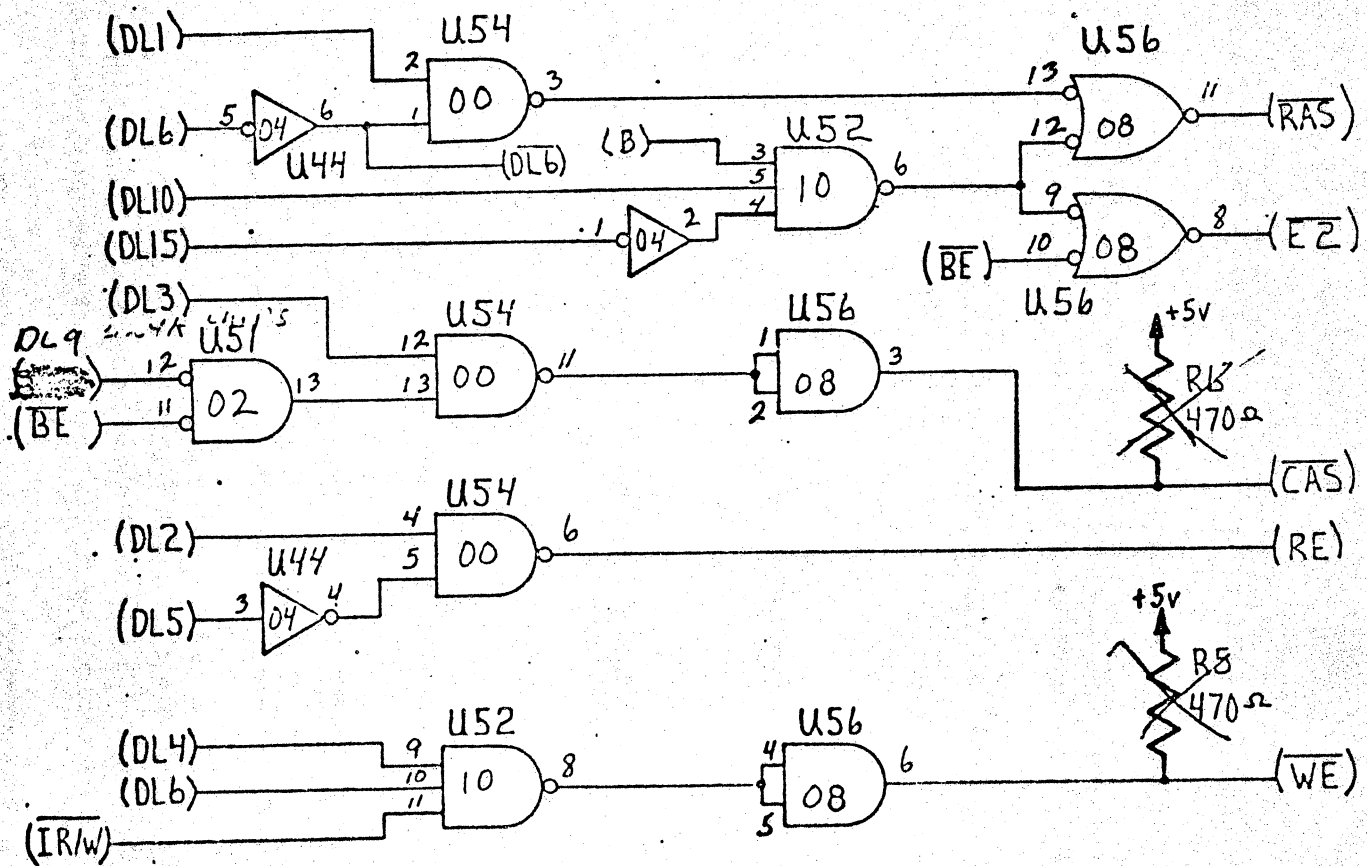
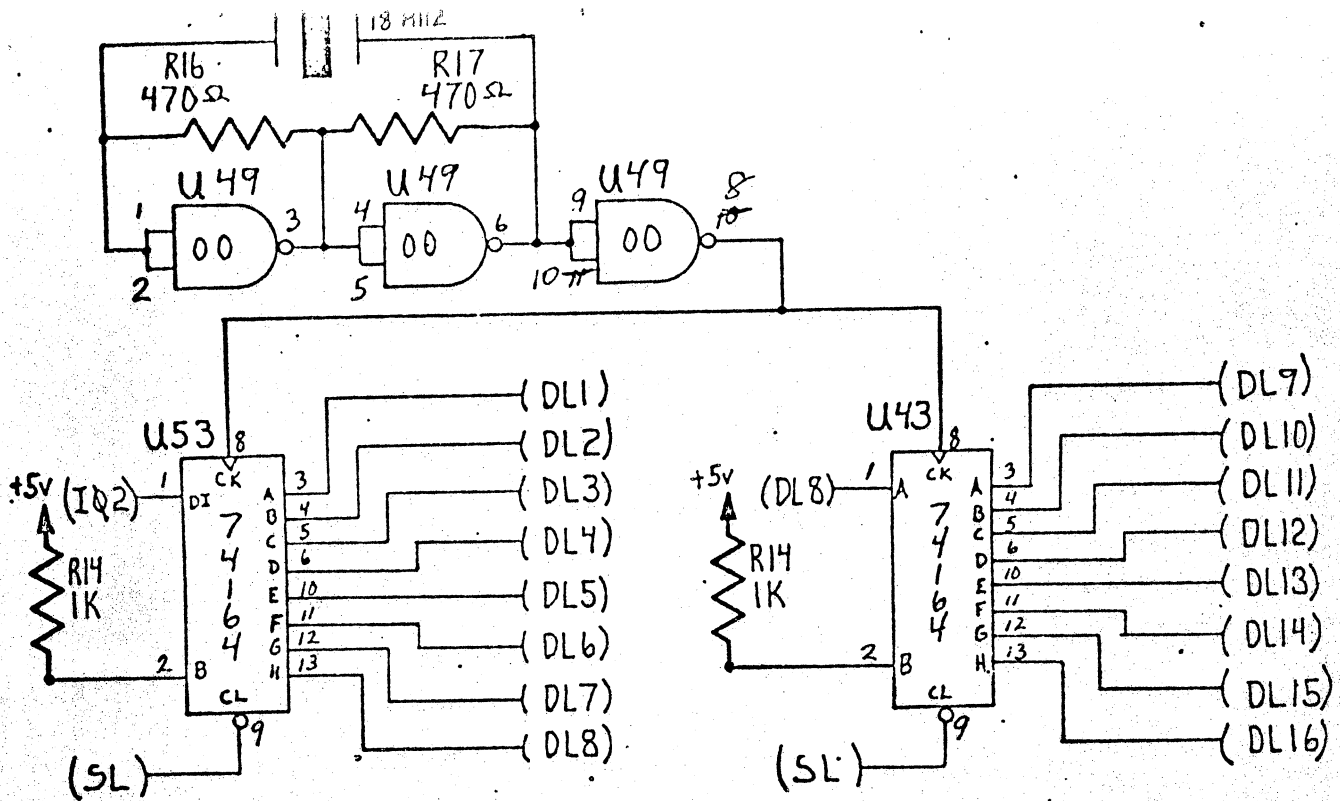
14	15	0
14	15	1
14	15	2
14	15	3



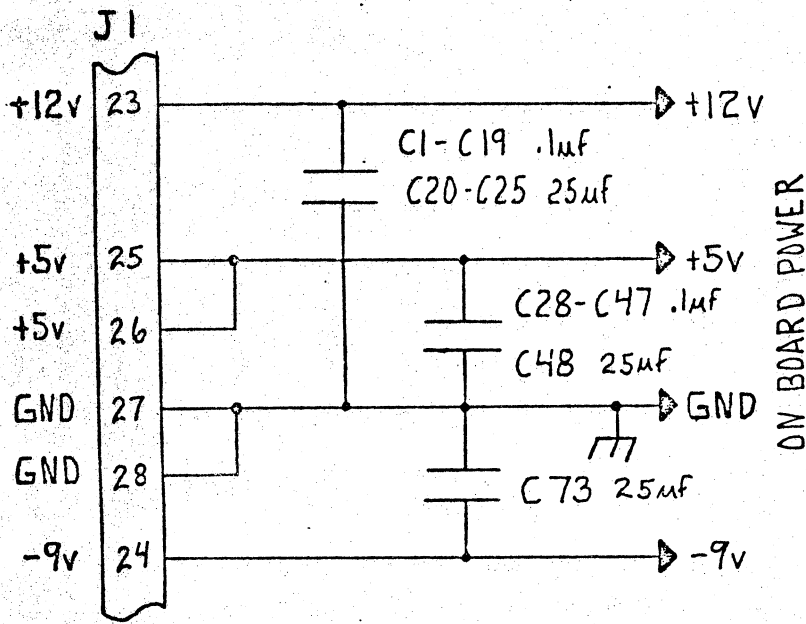
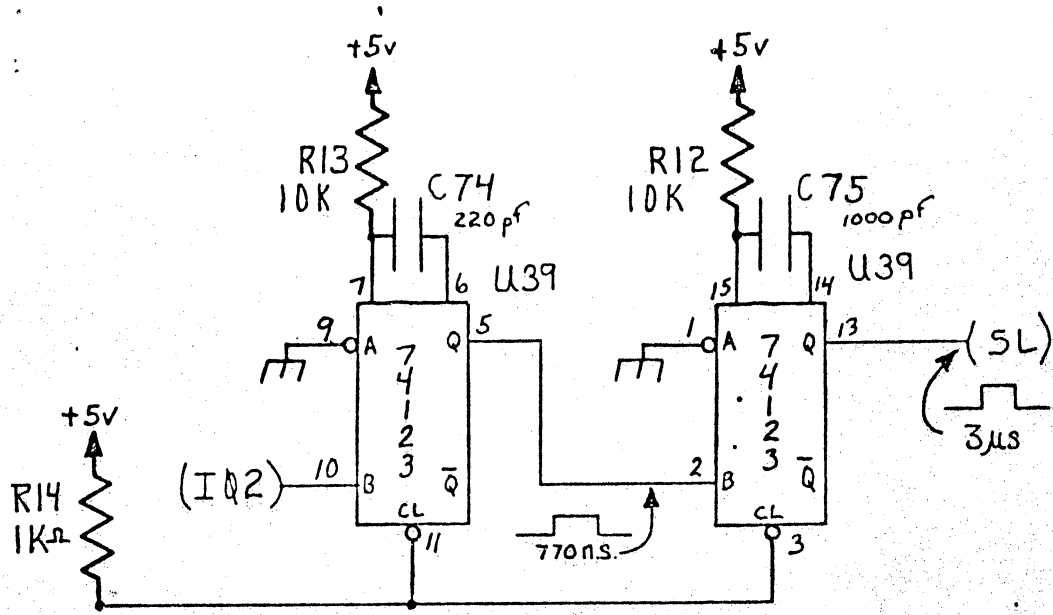
ADDRESS DECODER AND BUFFERS
(SHEET 1 OF 5)



MEMORY ADDRESS MULTIPLEXER
(SHEET 2 OF 5)



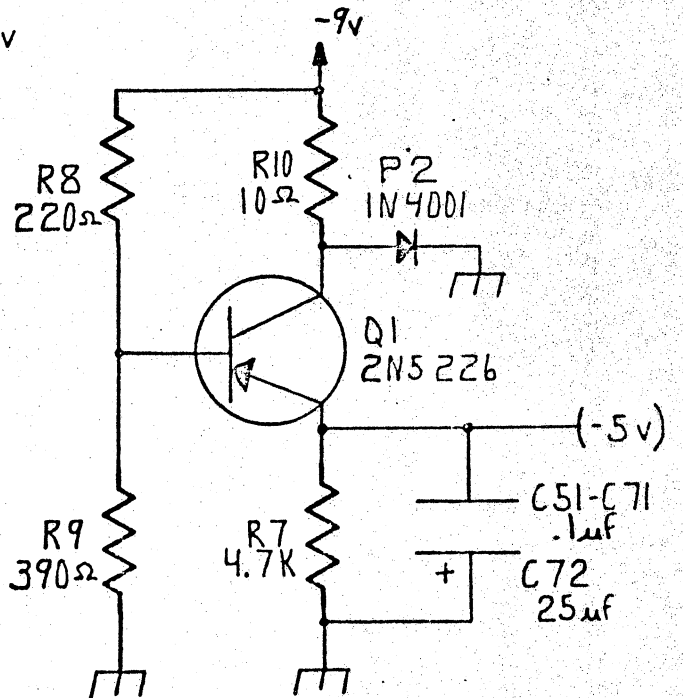
CLOCK AND TIMING CIRCUITRY
(SHEET 3 OF 5)

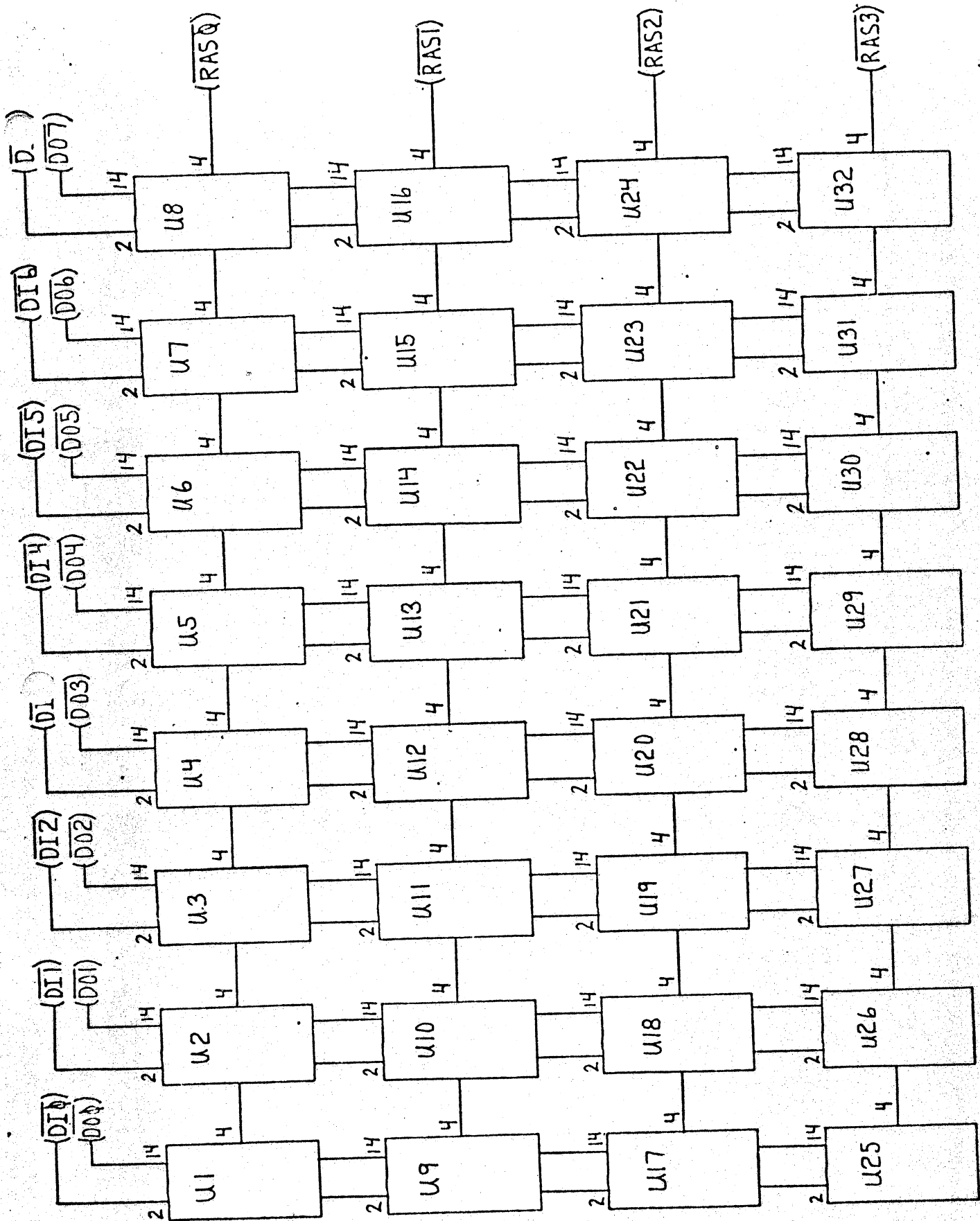


CAPACITORS NOT USED:
 C26-C28
 C49-C50
 C73-C75

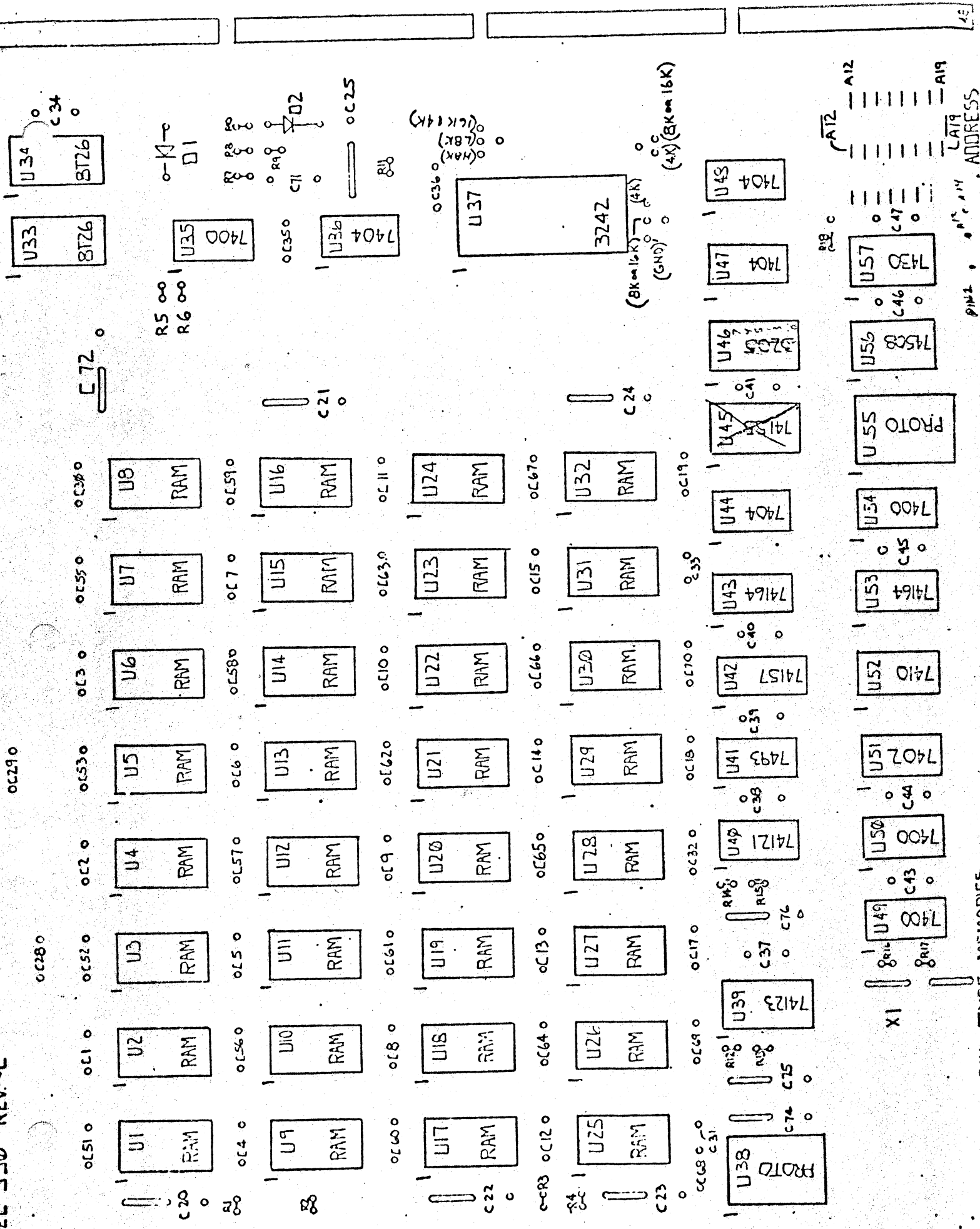
POWER SUPPLY AND CLOCK
 (SHEET 4 OF 5)

HIGHSPEED CLOCK LOCKOUT





MEMORY ARRAY (SHEET 5 OF 5)



RAM = 2104 / 2116 TYPE MEMORIES

ADDRESS
A12
A19

Model 530

16K Dynamic RAM

Description:

The Model 530 - 16K dynamic board uses 4K x 1 4027 dynamic memories. Refreshes occur during ϕ_1 of the microprocessor's clock cycle and, therefore, are invisible to the user. The Model 530 requires power from +12 volts, 5 volts and -9 volts supplies. This excludes use in the 500-1 and Challenger IIP without additional supplies. Also, it is recommended that the 530 board be used in conjunction with the Model 580 backplane as this provides greater noise immunity than the 480 backplane.

Applications:

Low cost main memory in medium to large scale computer systems (16K to 48K or more).

Specifications:

Mechanical: 8" x 10" G-10 Epoxy Double-Sided Plated Through Hole Board.

Electrical: Power Requirements:

-9 volts at 4.8ma
+5 volts at 600ma
+12 volts at 328ma active
+12 volts at 248ma standby

Operating Frequency:

Clock must be 1MHz or slower and ϕ_2 must be at least 480ns long. Also, ϕ_1 must be at least 480ns long.

Available only as fully assembled, fully burned in memory board configured for 16K x 8 address strapable for any 16K partition within a 256K memory space (18 address bits).

Installation of CM-4 16K Dynamic Boards in Challenger II
Systems with 500 Boards.

Systems using CM-4 16K dynamic boards must meet the following specifications:

Clock must be 1 MHz or slower and Ø2 must be at least 480ns long.

Also, Ø1 must be at least 480ns long

To meet these specifications, 500 boards must be modified by replacing capacitor C2 (82 pf.) with a 68 pf. capacitor and readjusting the clock frequency for 950 KHz and checking that Ø1 and Ø2 are at least 480ns long.