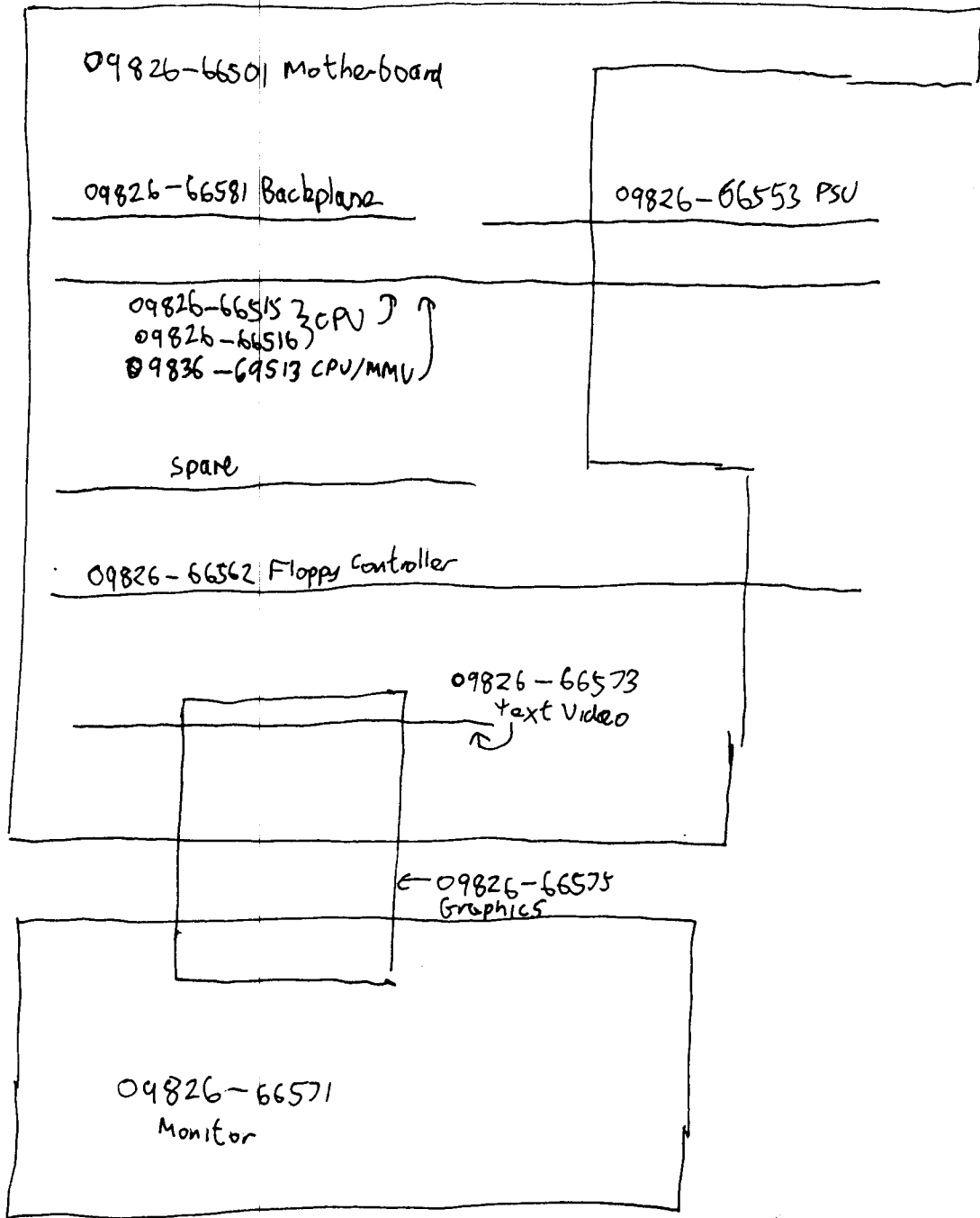
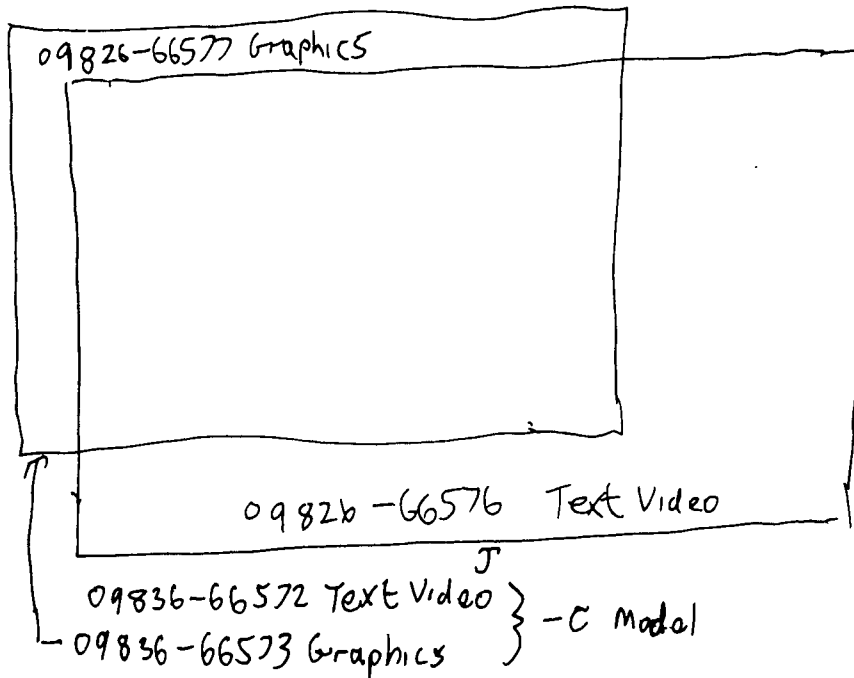
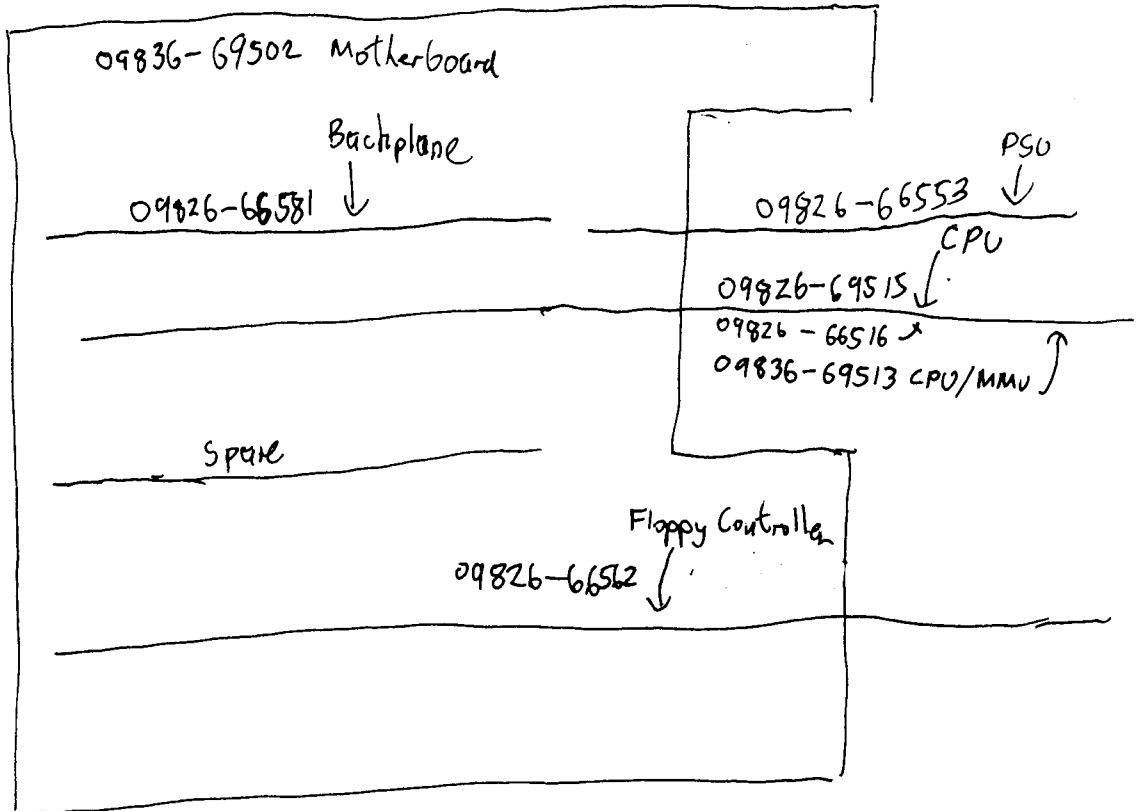


HP 9826

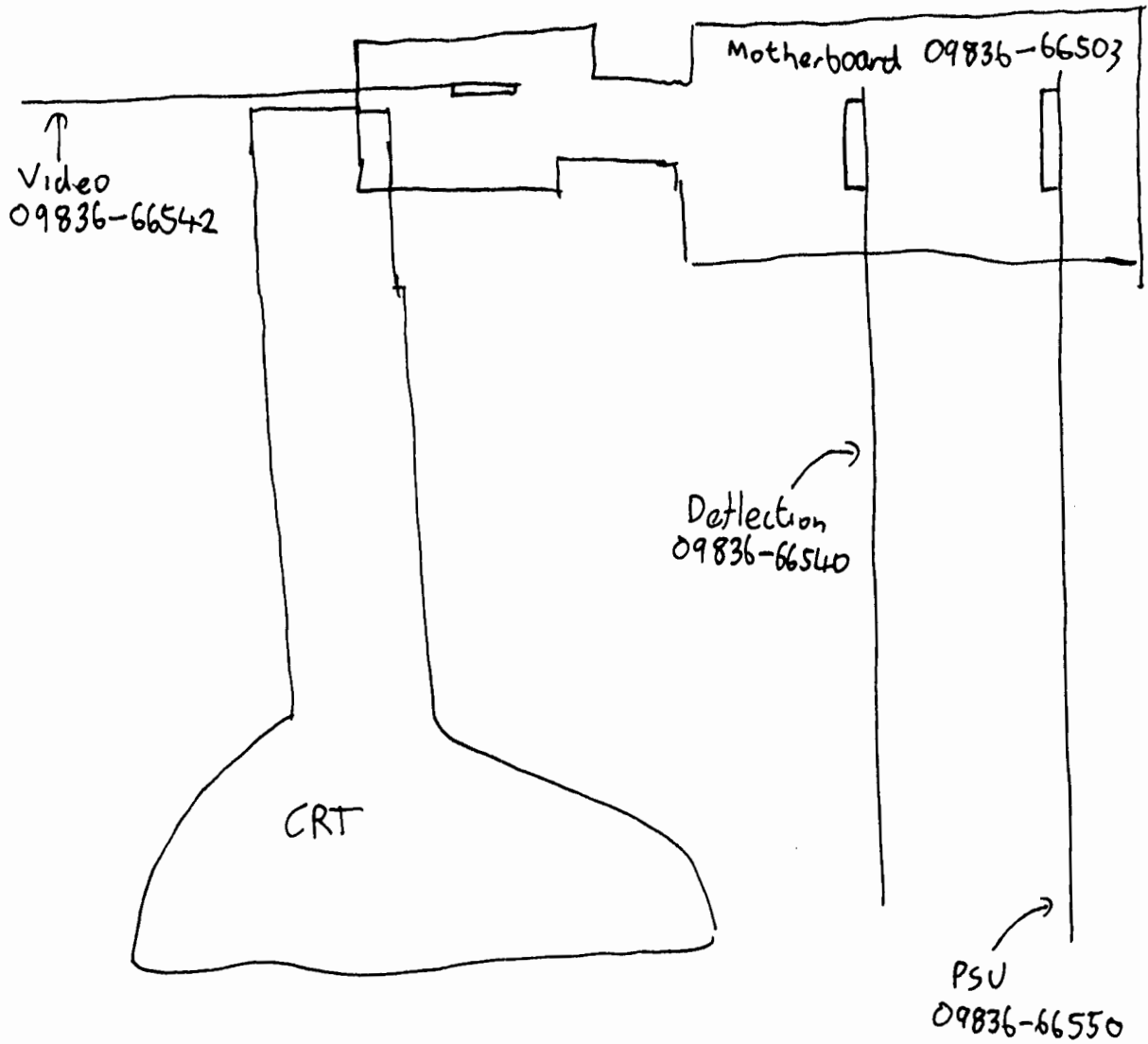


MP9836

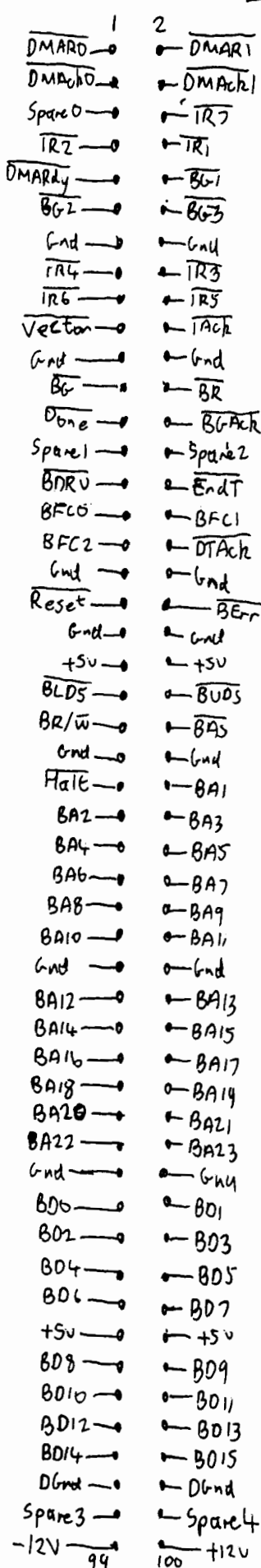
09826-66554 ↓ Mains



HP9836C Monitor

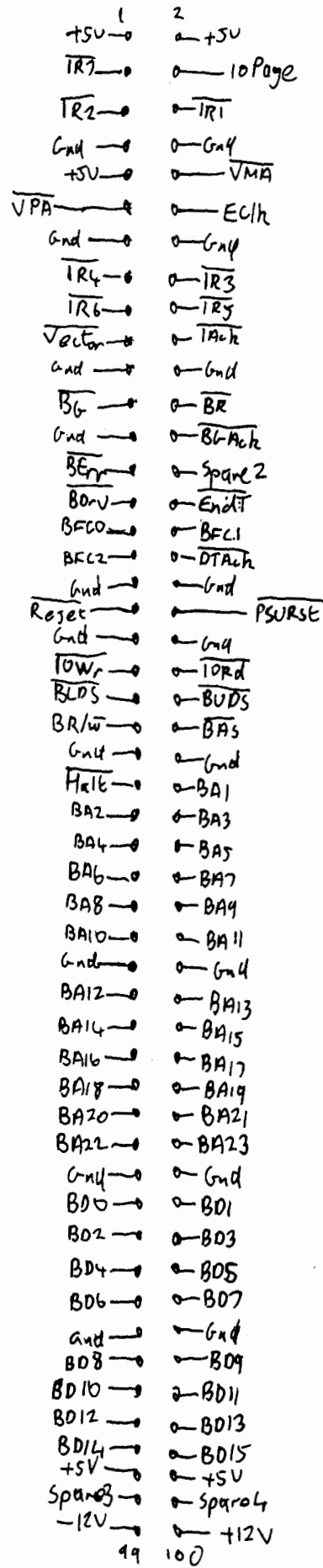


MP9826 / MP 9836 Motherboard



J2
Backplane

CHS
Front ↑



J3
CPU

HP9826 / HP9836 Motherboard

1	2
DMAR0	DMAR1
DMACH0	DMACH1
Spare0	IR7
IR2	IR1
DMARDy	BG1
BG2	BG3
Gnd	Gnd
IR4	IR3
IR6	IR5
Vector	IAch
Gnd	Gnd
BG	BR
Done	BGACH
Spare1	Spare2
BORV	EndT
BFC0	BFC1
BFC2	DTACH
Gnd	Gnd
Reset	BErr
Gnd	Gnd
0	0
BLDS	BUD5
BR/W	BAS
Gnd	Gnd
HA1E	BA1
BA2	BA3
BA4	BA5
BA6	BA7
BA8	BA9
BA10	BA11
Gnd	Gnd
BA12	BA13
BA14	BA15
BA16	BA17
BA18	BA19
BA20	BA21
BA22	BA23
Gnd	Gnd
B00	B01
B02	B03
B04	B05
B06	B07
+5V	+5V
B08	B09
B010	B011
B012	B013
B014	B015
DGnd	DGnd
Spare3	Spare4
-12V	+12V

LHS
Front

99 100

J4
Spare

1	2
Gnd	0 c1k10M
Gnd	Gnd
DMAR0	DMAR1
DMACH0	DMACH1
Gnd	Gnd
IR2	DiskCS
+5V	+5V
DMARDy	IR3
IR6	IR5
Gnd	Gnd
BG1	BG3
BG2	BR
Done	BGACH
Spare1	Spare2
BORV	EndT
BFC0	BFC1
BFC2	DTACH
Gnd	Gnd
Reset	BErr
Gnd	Gnd
LOWr	TOR1
BLDS	BUD5
BR/W	BAS
Gnd	Gnd
HA1E	BA1
BA2	BA3
BA4	BA5
BA6	BA7
BA8	BA9
BA10	BA11
Gnd	Gnd
BA12	BA13
BA14	BA15
BA16	BA17
BA18	BA14
BA20	BA21
BA22	BA23
Gnd	Gnd
B00	B01
B02	B03
B04	B05
B06	B07
+5V	+5V
B08	B09
B010	B011
B012	B013
B014	B015
Gnd	Gnd
Spare3	Spare4
-12V	+12V

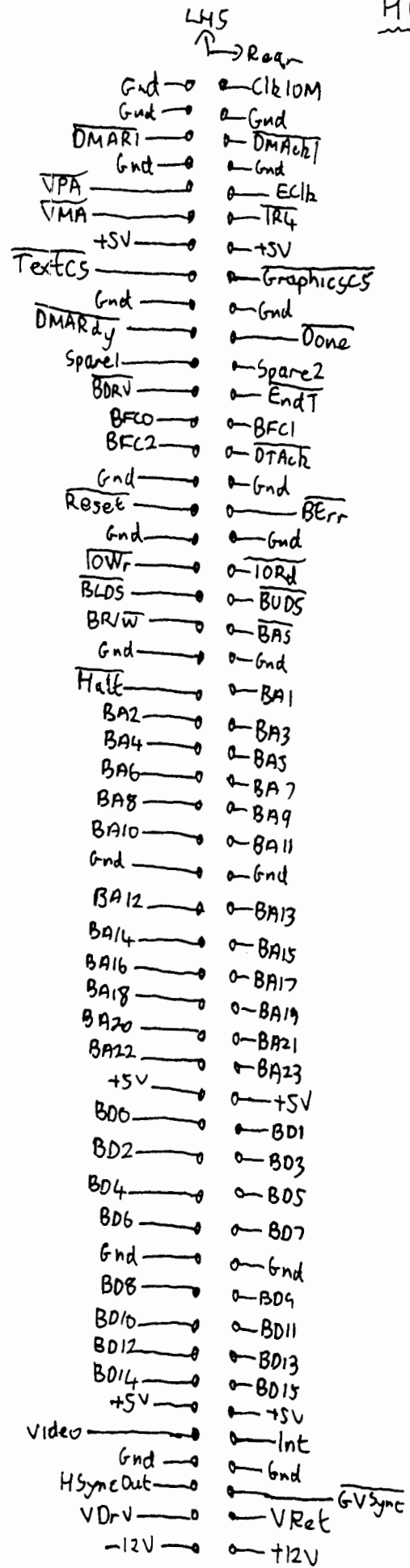
99

100

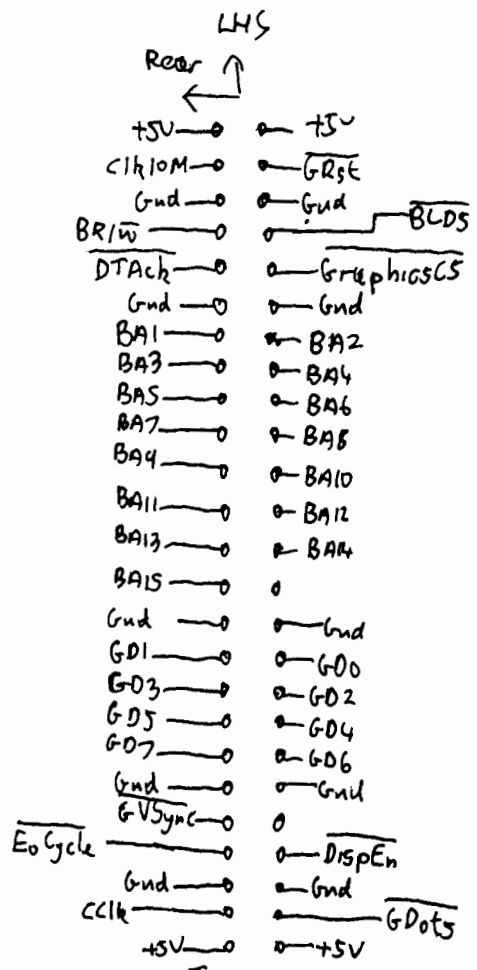
J5

Floppy Controller

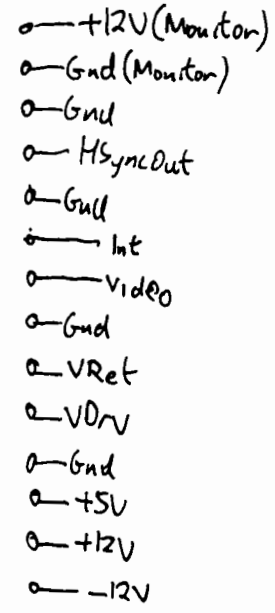
HP9826 Motherboard



J6
Text Video



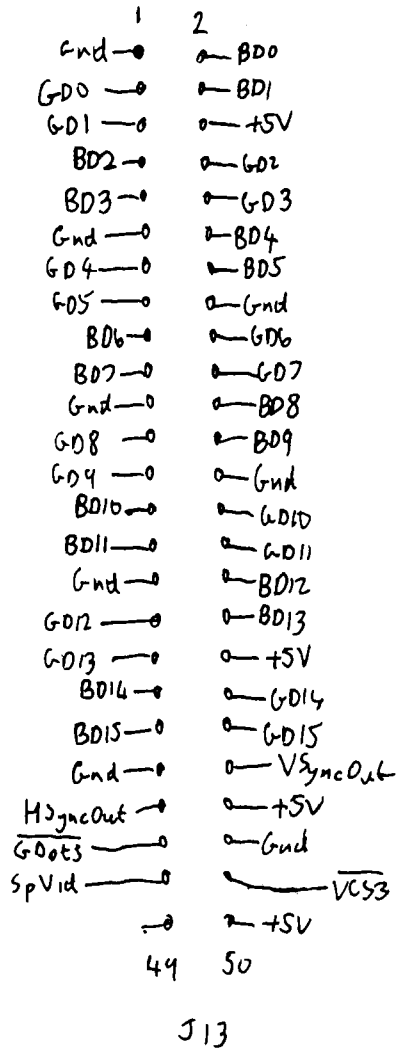
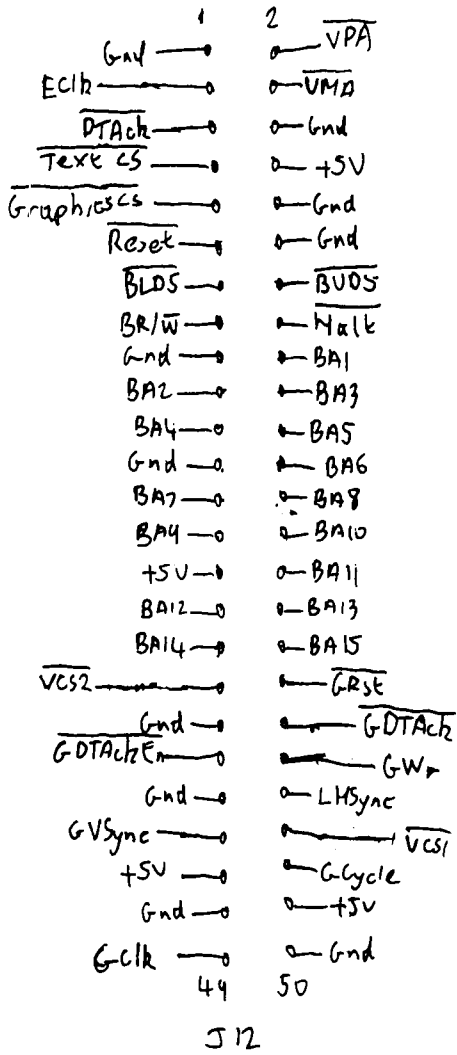
Text Video J2
(To Graphics PCB)



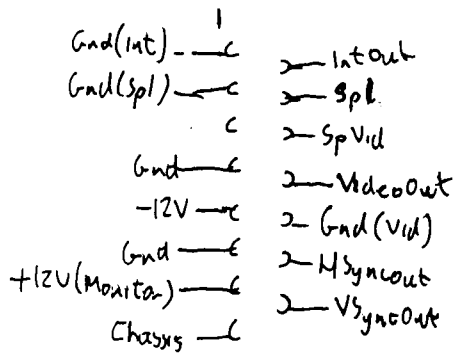
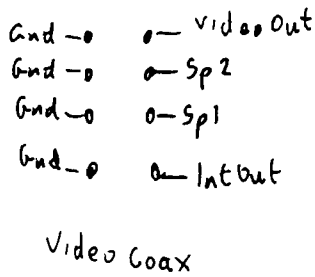
J7
Monitor

HP9836 Motherboard

LHS
 ↑ Top



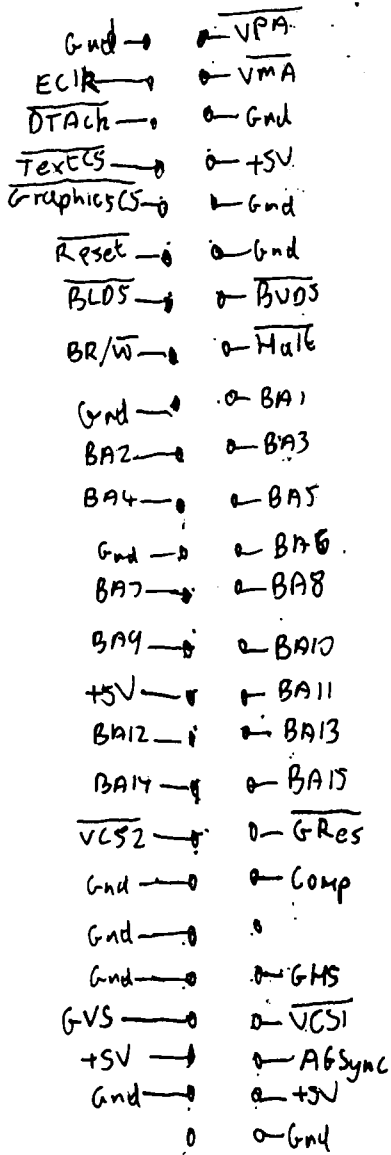
Video PCB5



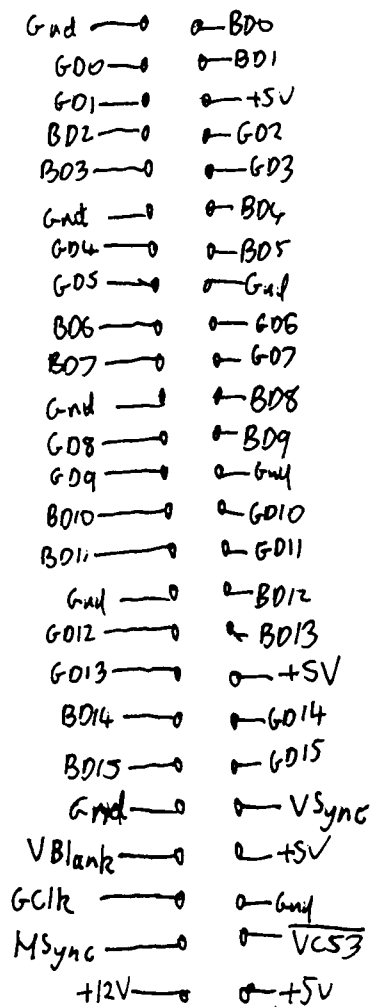
Monitor
 J15

HP9835C Motherboard

LHS
Top ↑

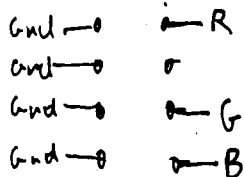


J12

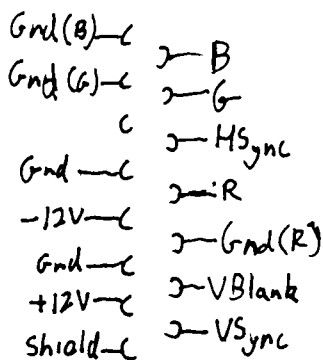


J13

Video PCBs



Video Coax

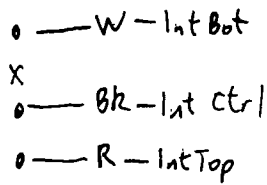
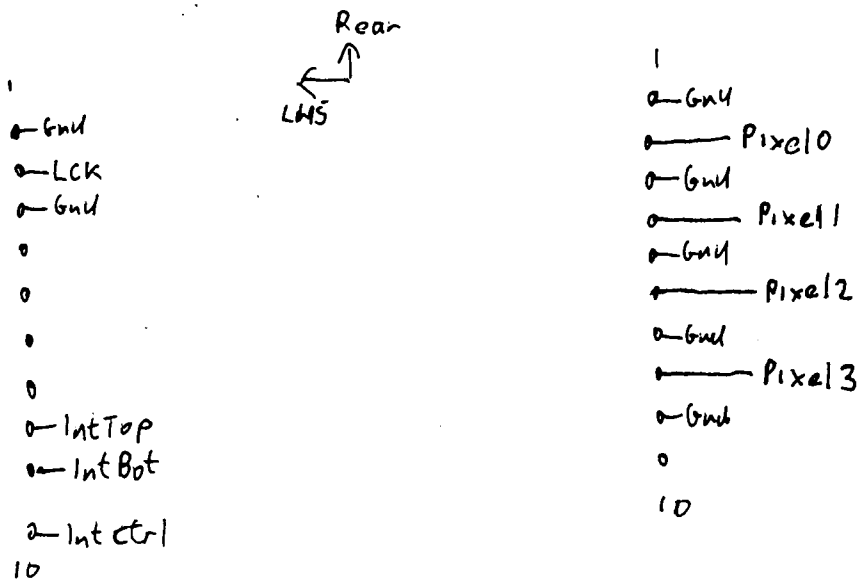


Monitor

J15

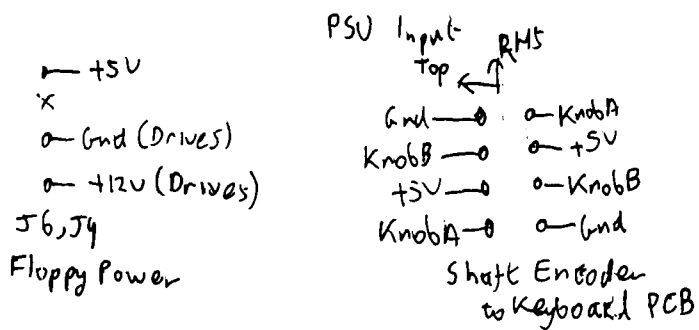
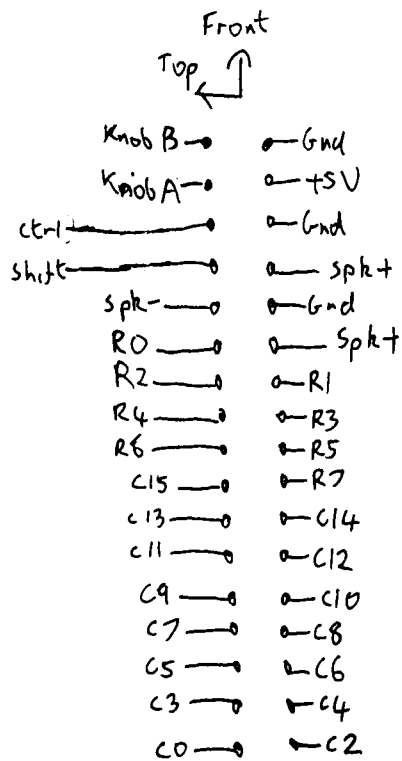
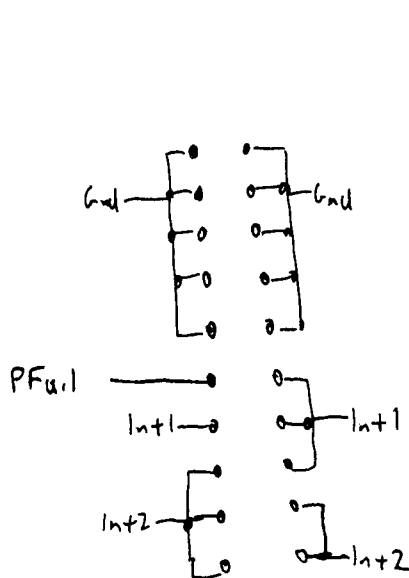
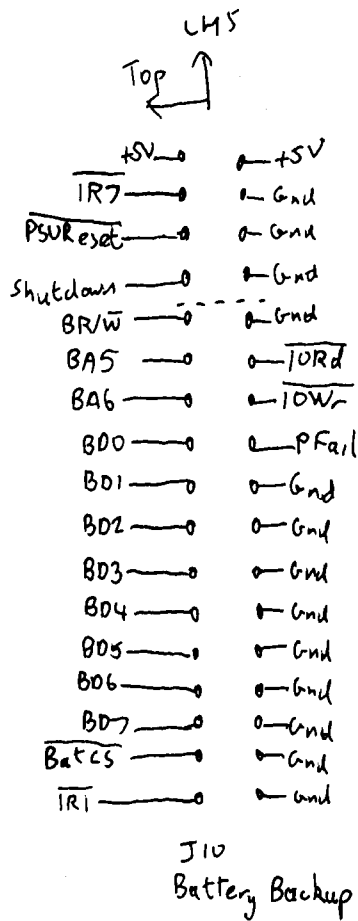
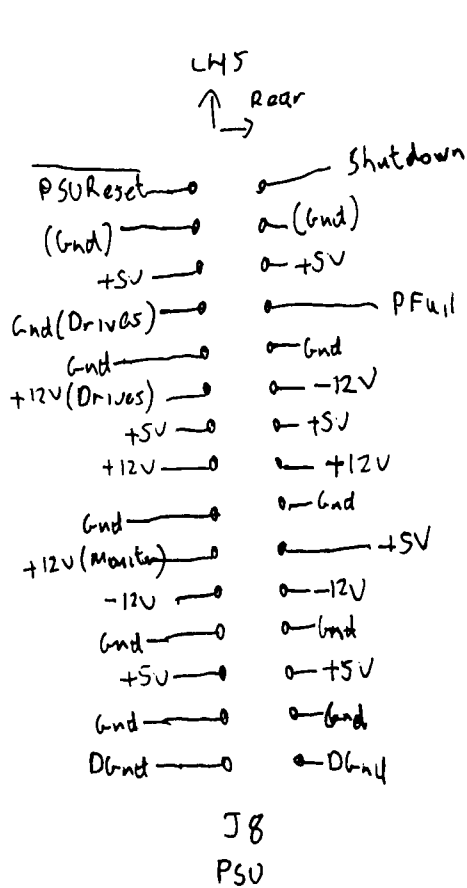
HP9836C

Video PCB Interconnect pins



Graphics J3
Intensity Control

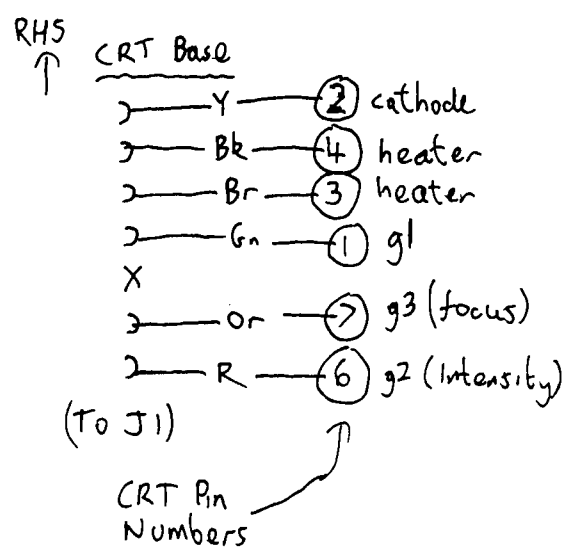
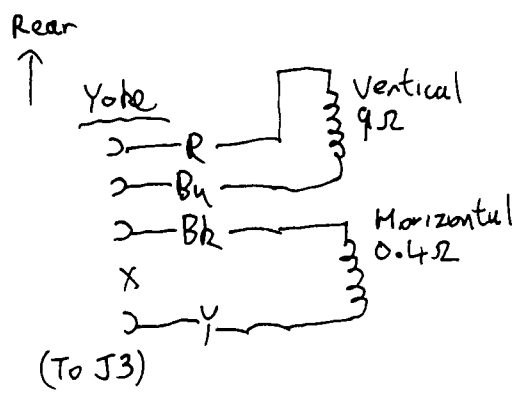
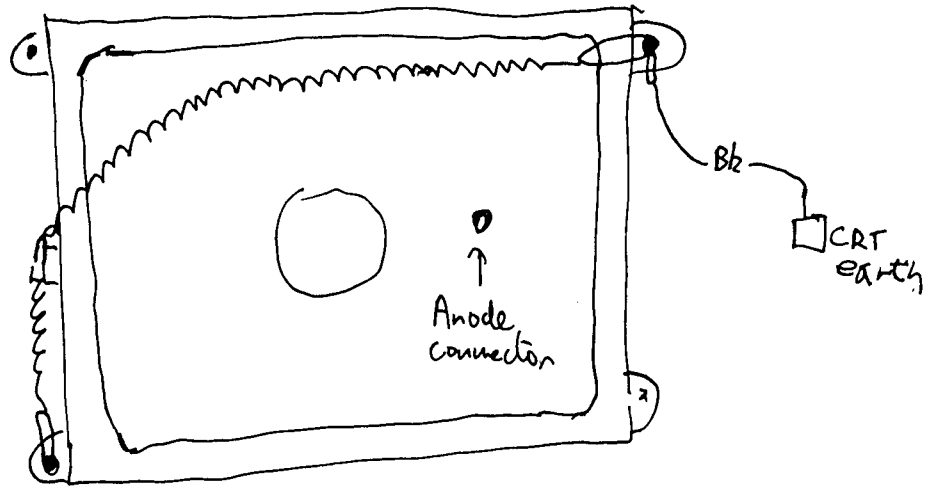
HP9826/ HP4836 Motherboard



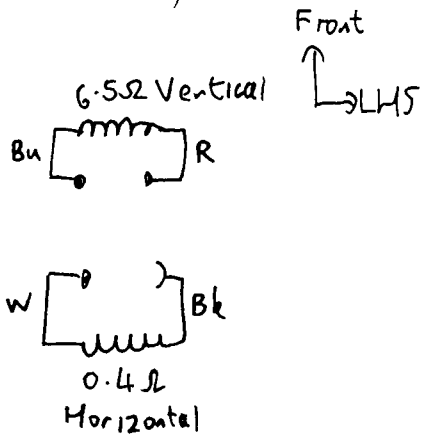
HP9826 Monitor

HP9826 CRT Earthing

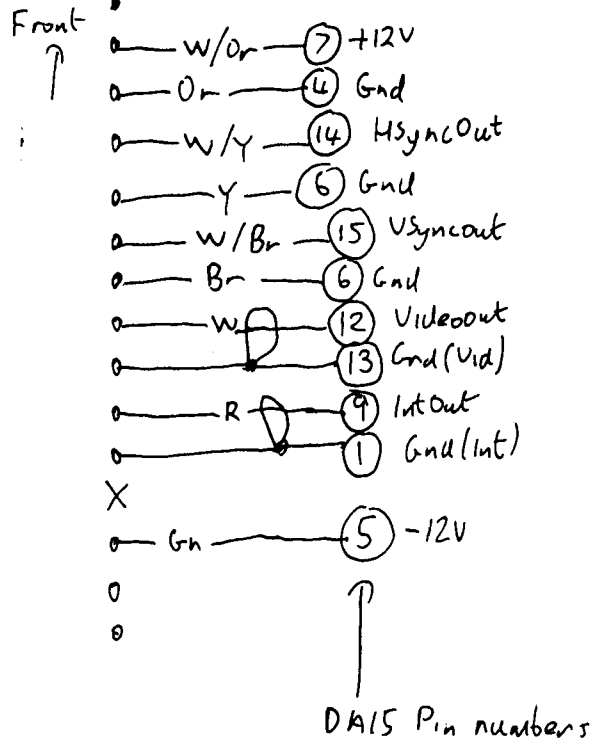
TOP
 ↑ → LHS



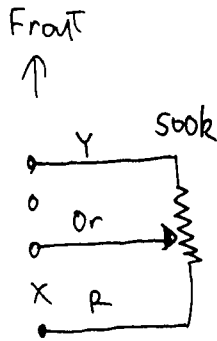
J1 (Yoke)



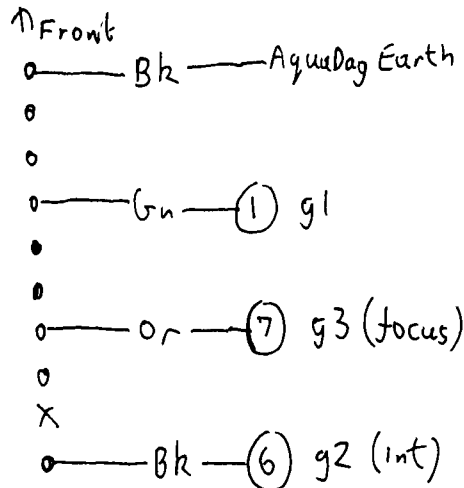
J2 (Input Cable)



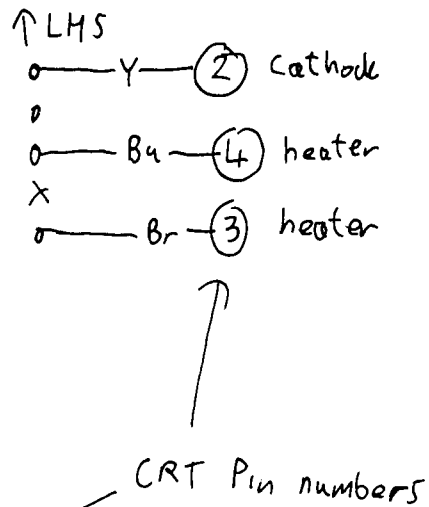
J3 (Intensity control)



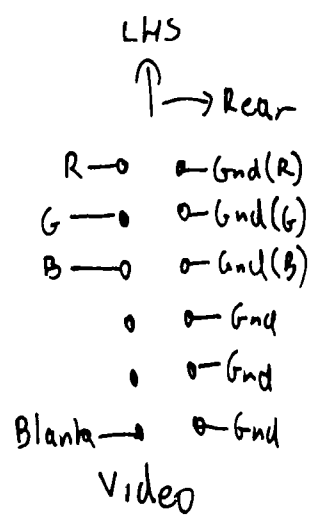
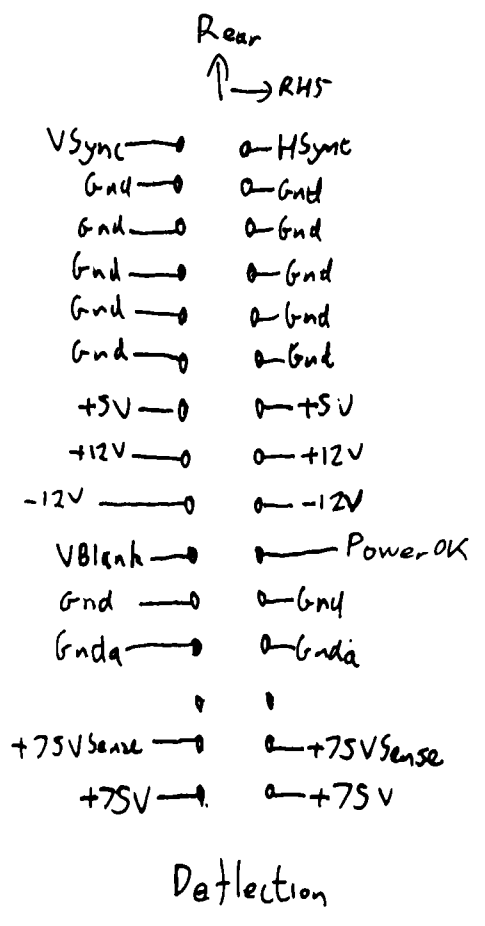
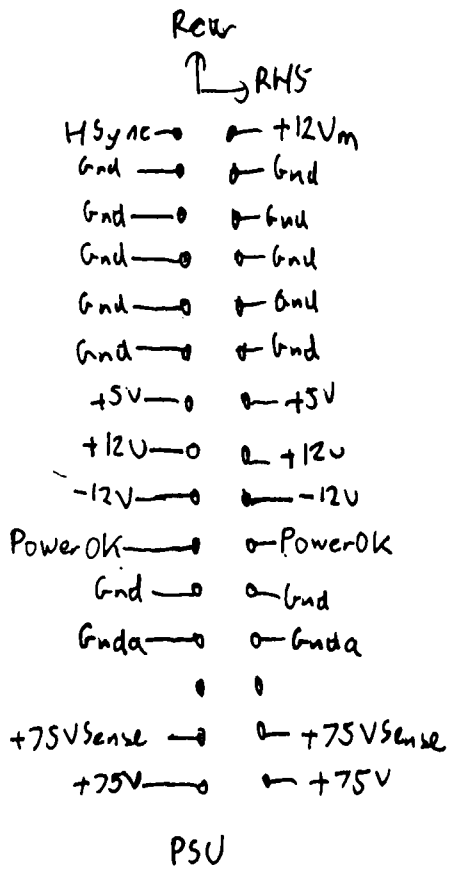
J4 (CRT Base)



J5 (CRT Base)



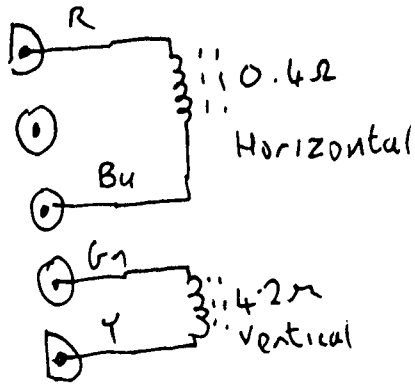
HP9836C Monitor



Motherboard Connectors

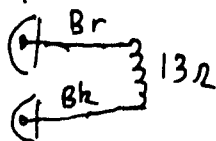
HP9836C Monitor

Front
↑



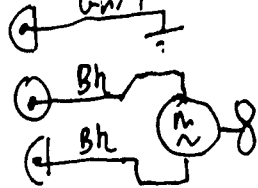
Deflection/JY
(Yoke)

Front
↑

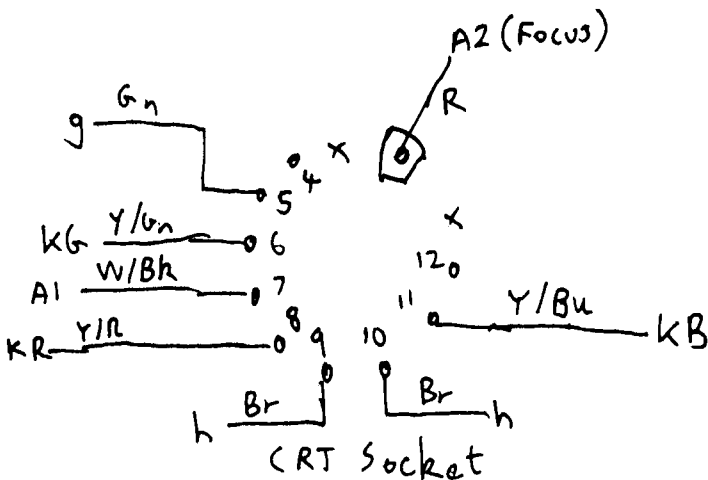


PSU/J3
(Degauss)

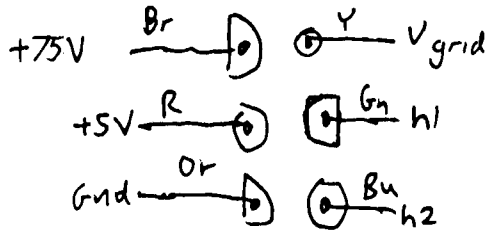
Front
↑



PSU/J2
(Fan)

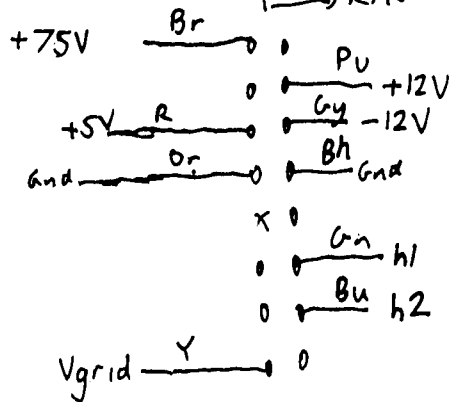


Top
↑ Front



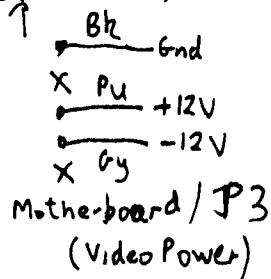
Deflection/JVid
(Video Power)

Top
↑ R/H5

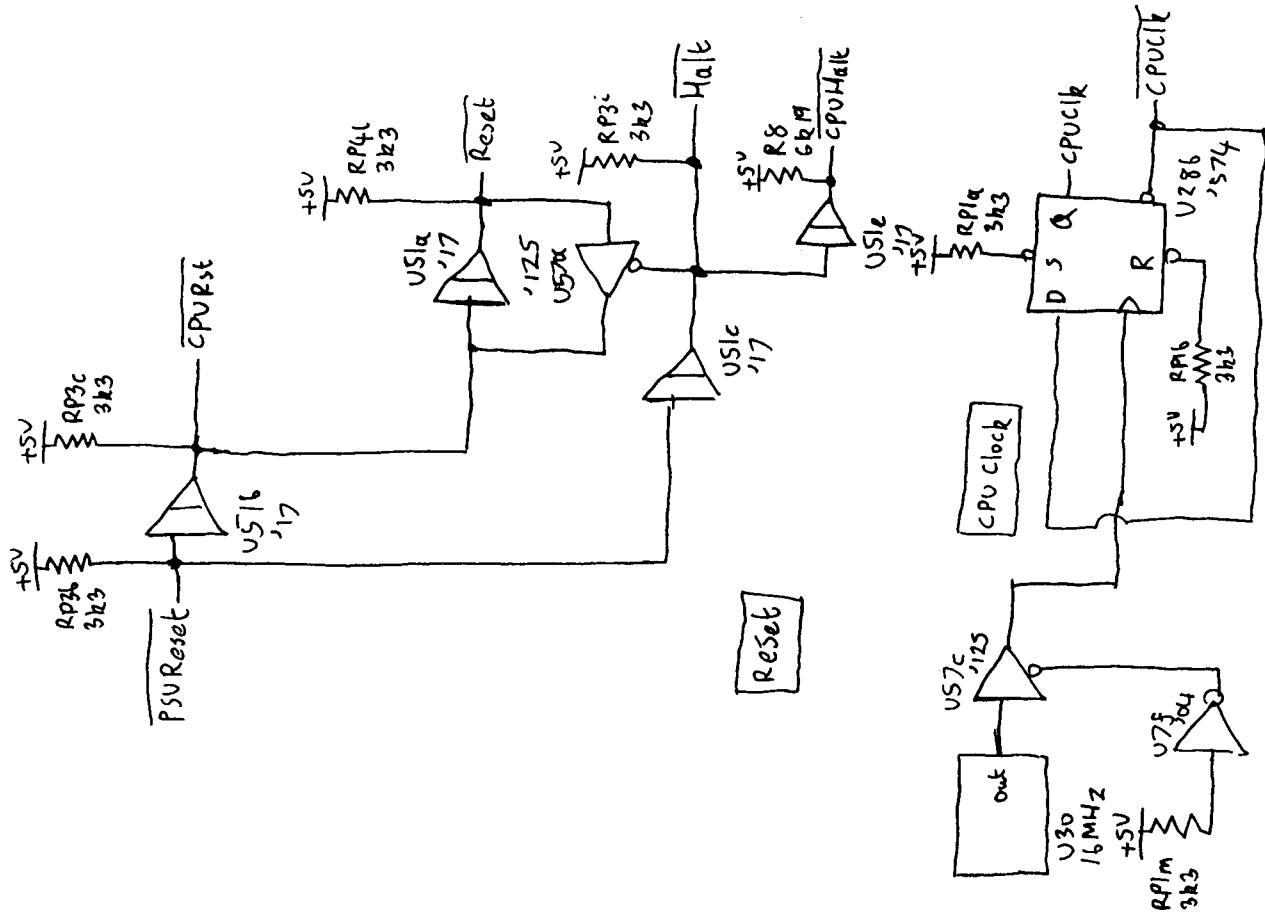
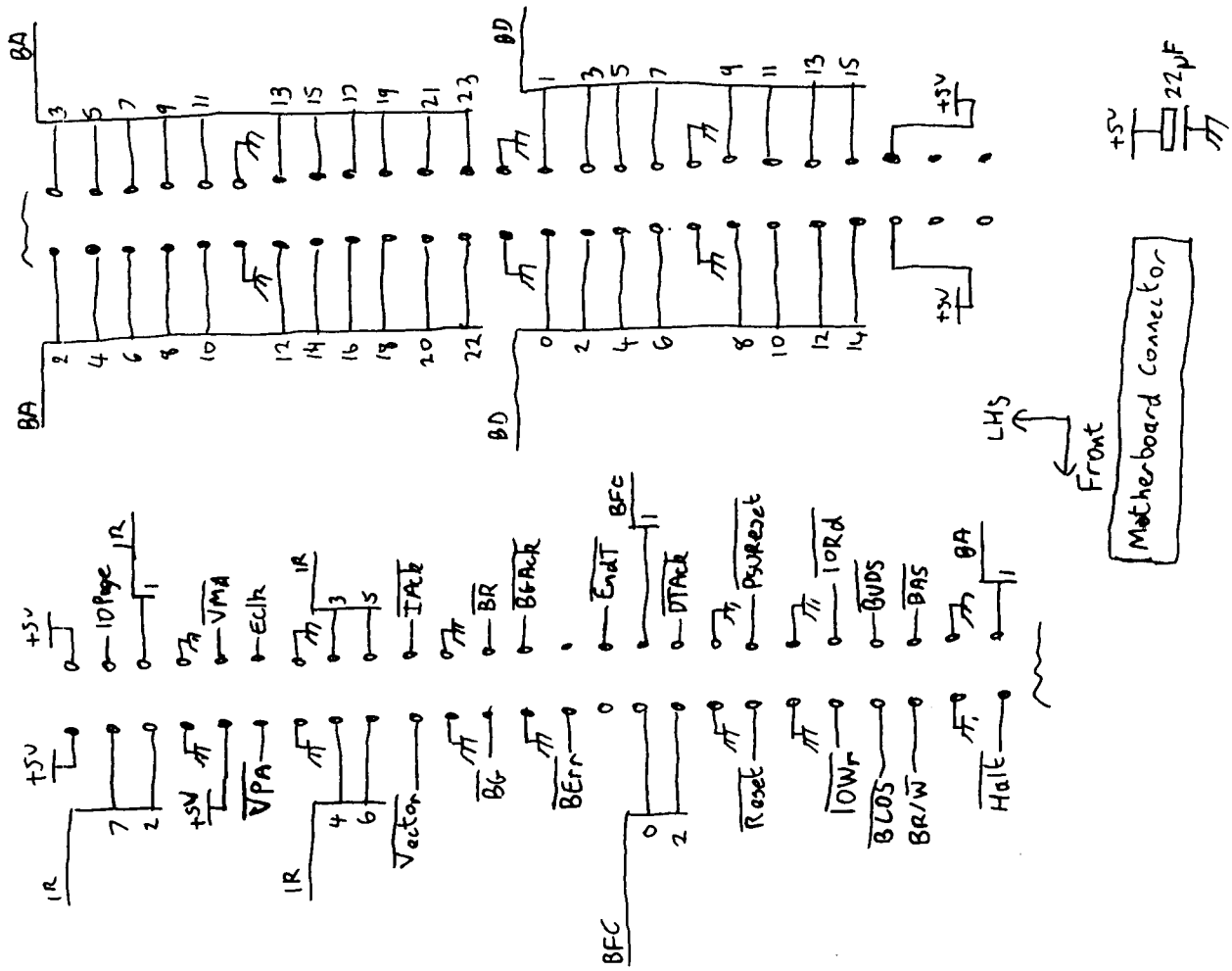


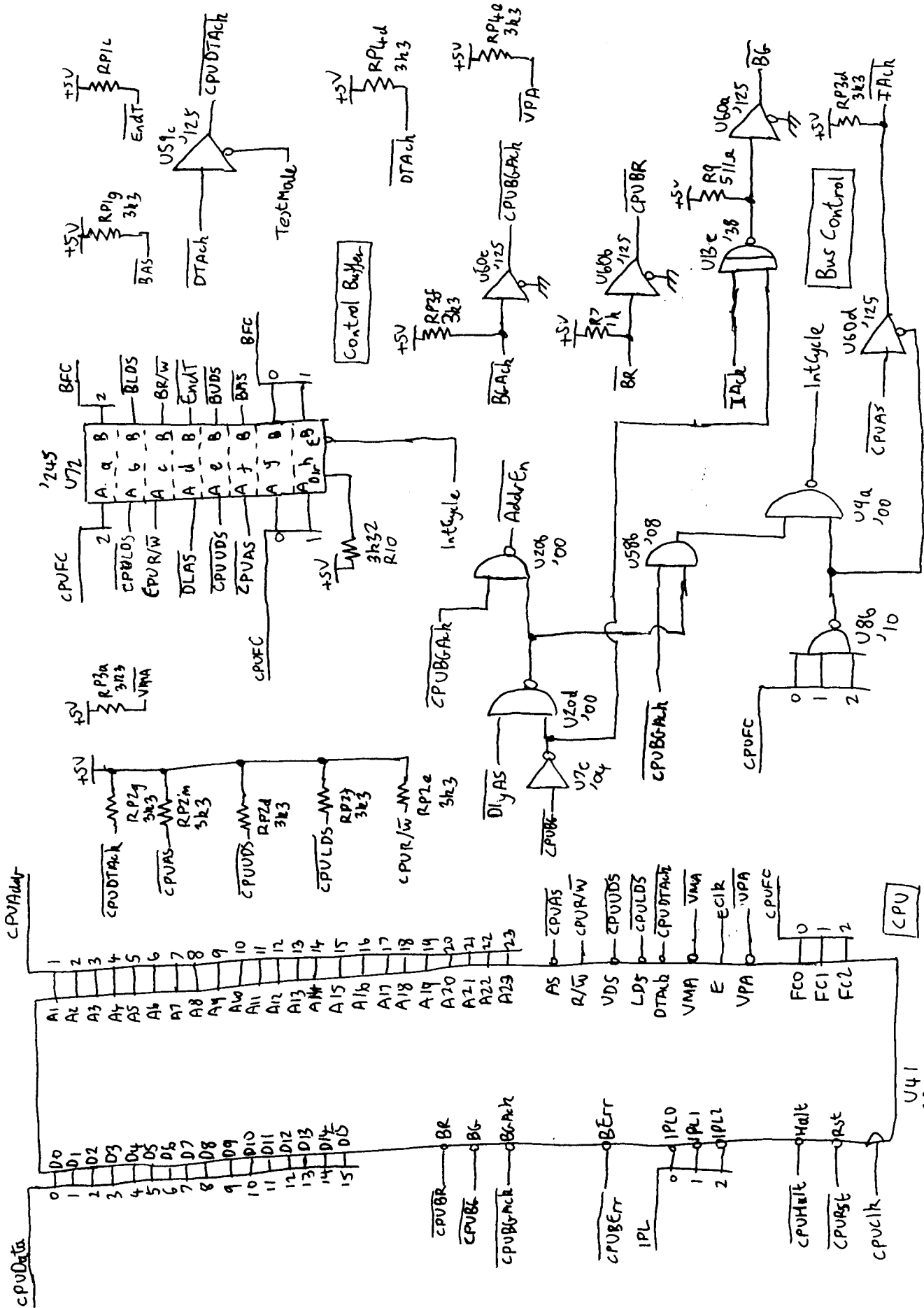
Video/P2
(Power)

Rear
↑



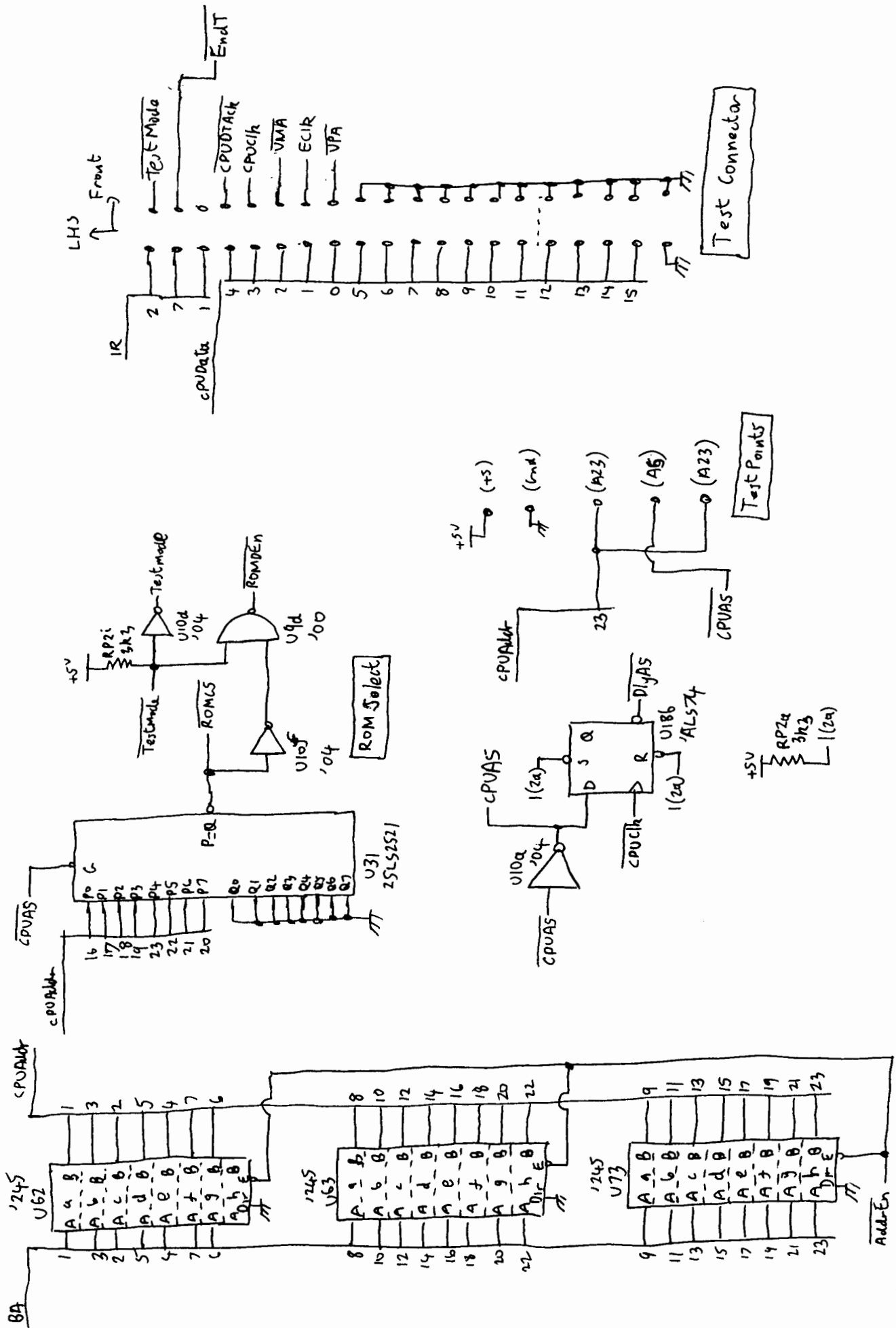
Motherboard/P3
(Video Power)

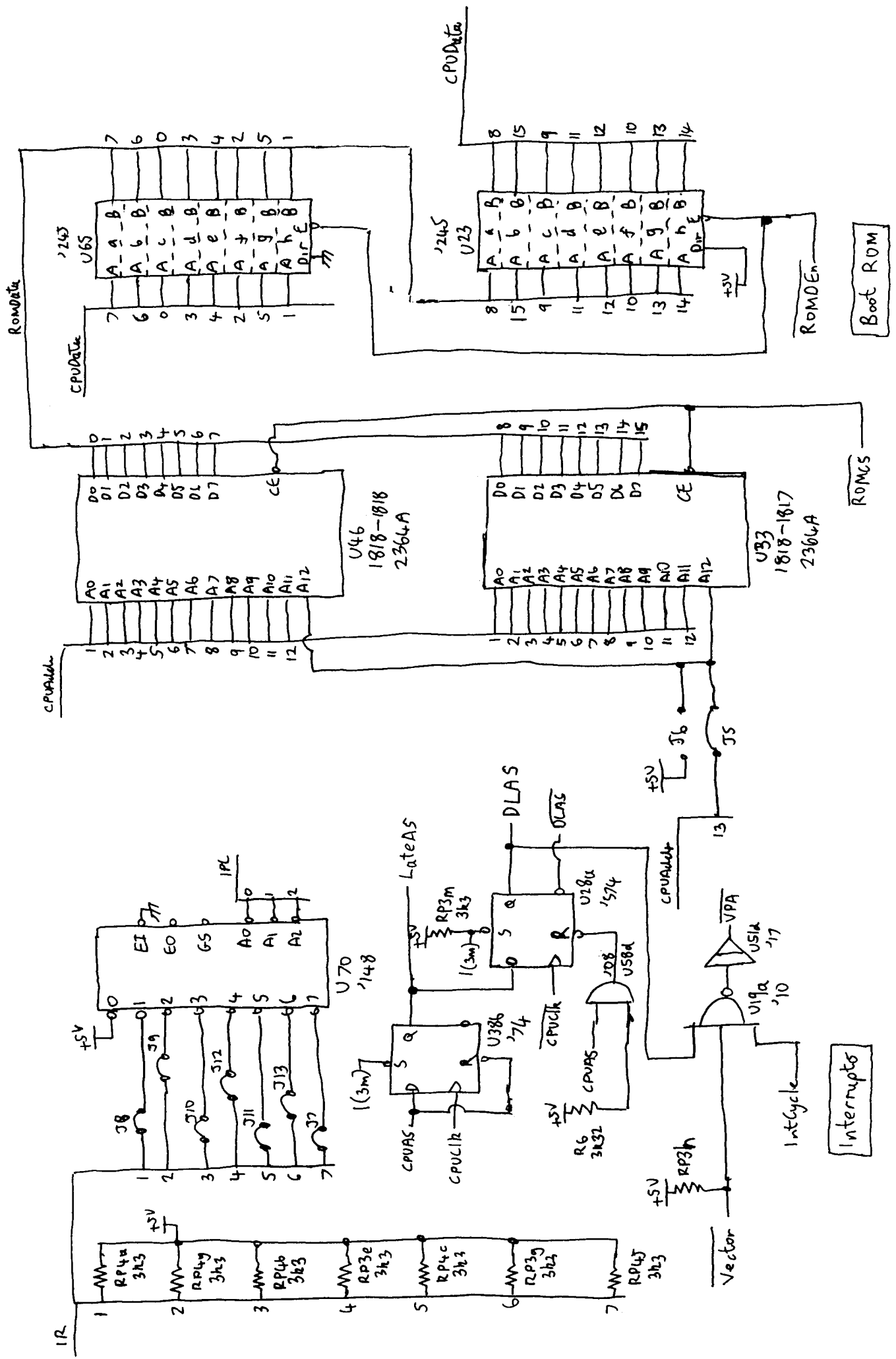




HP9826/HP9836 CPU PCB Sheet(2) 09826-69515 (B-/Gn)

U41
68000

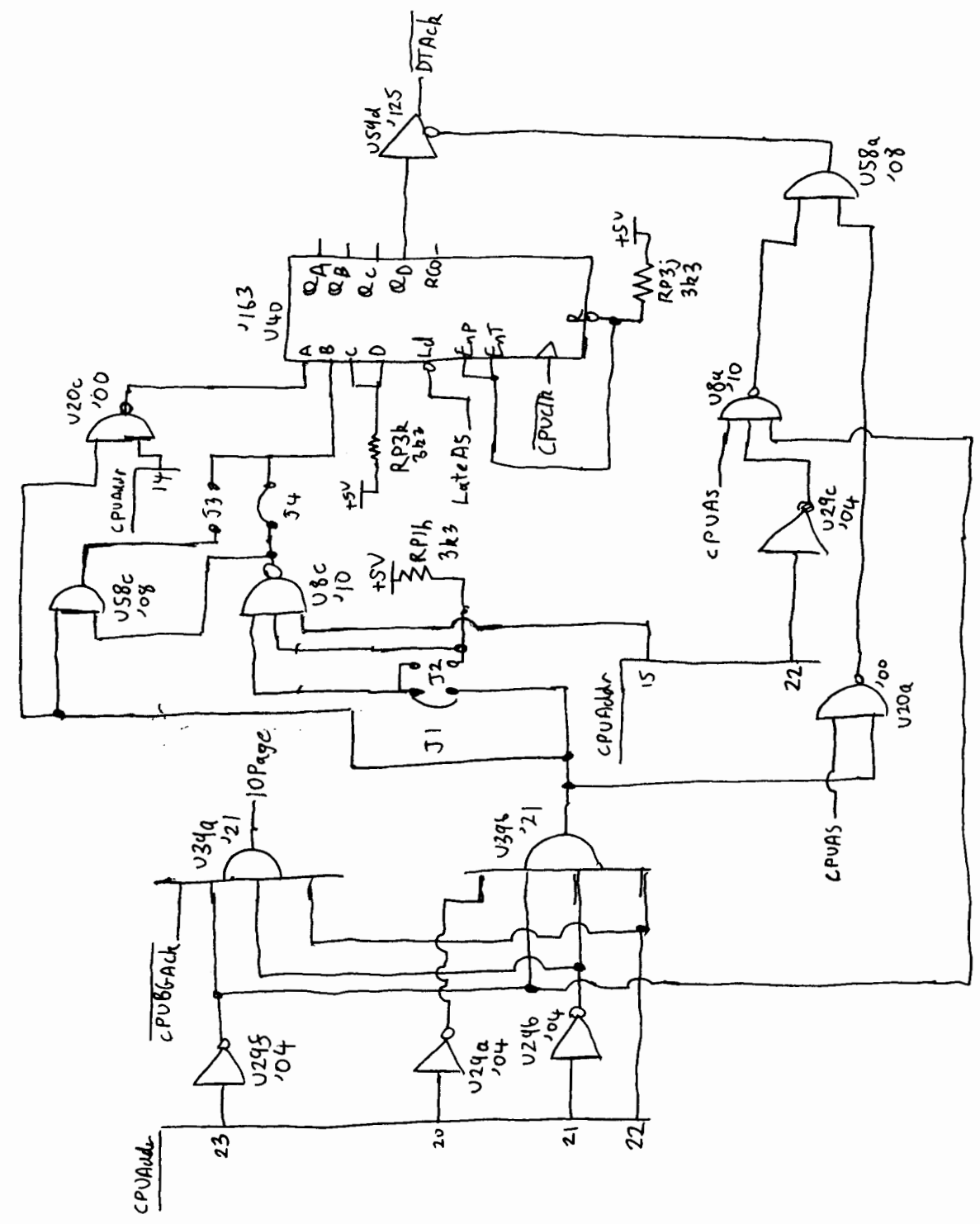
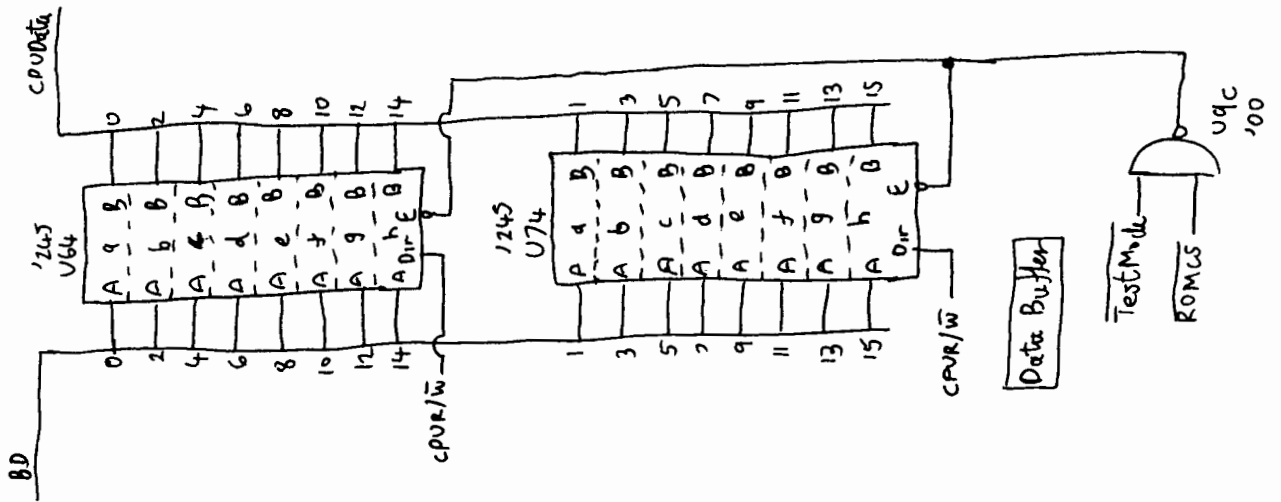




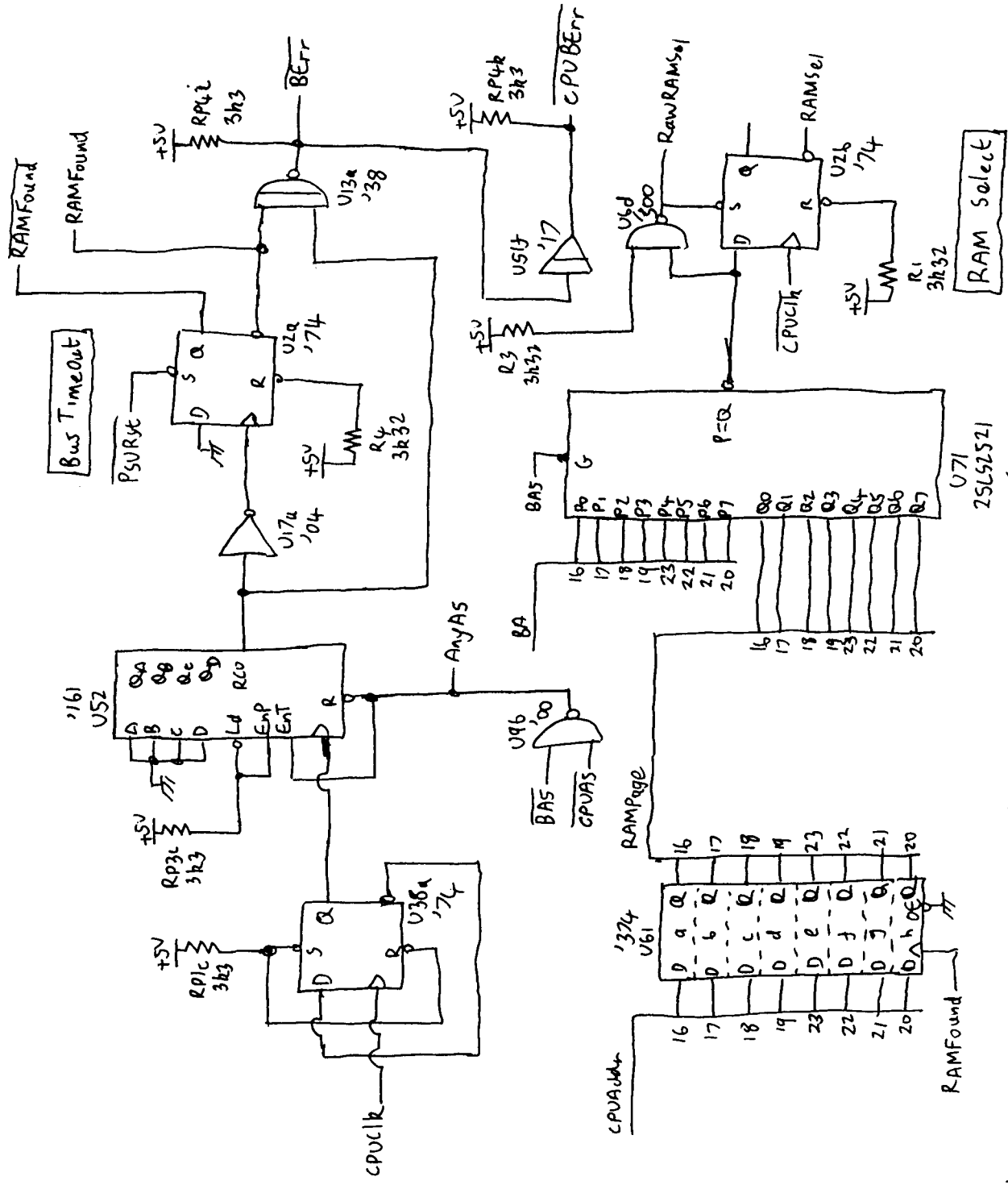
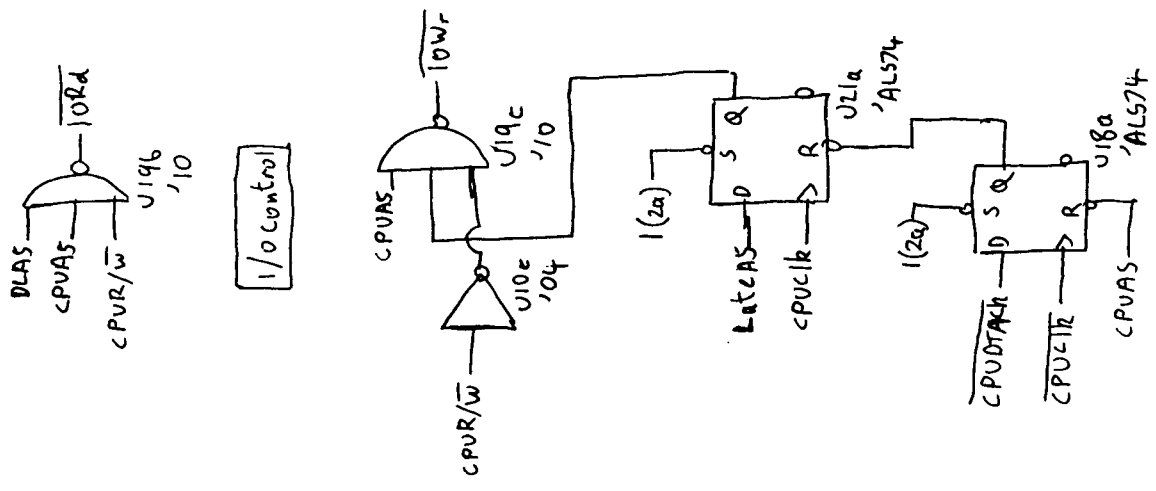
09826-69515 (B-F/G)

sheet 4

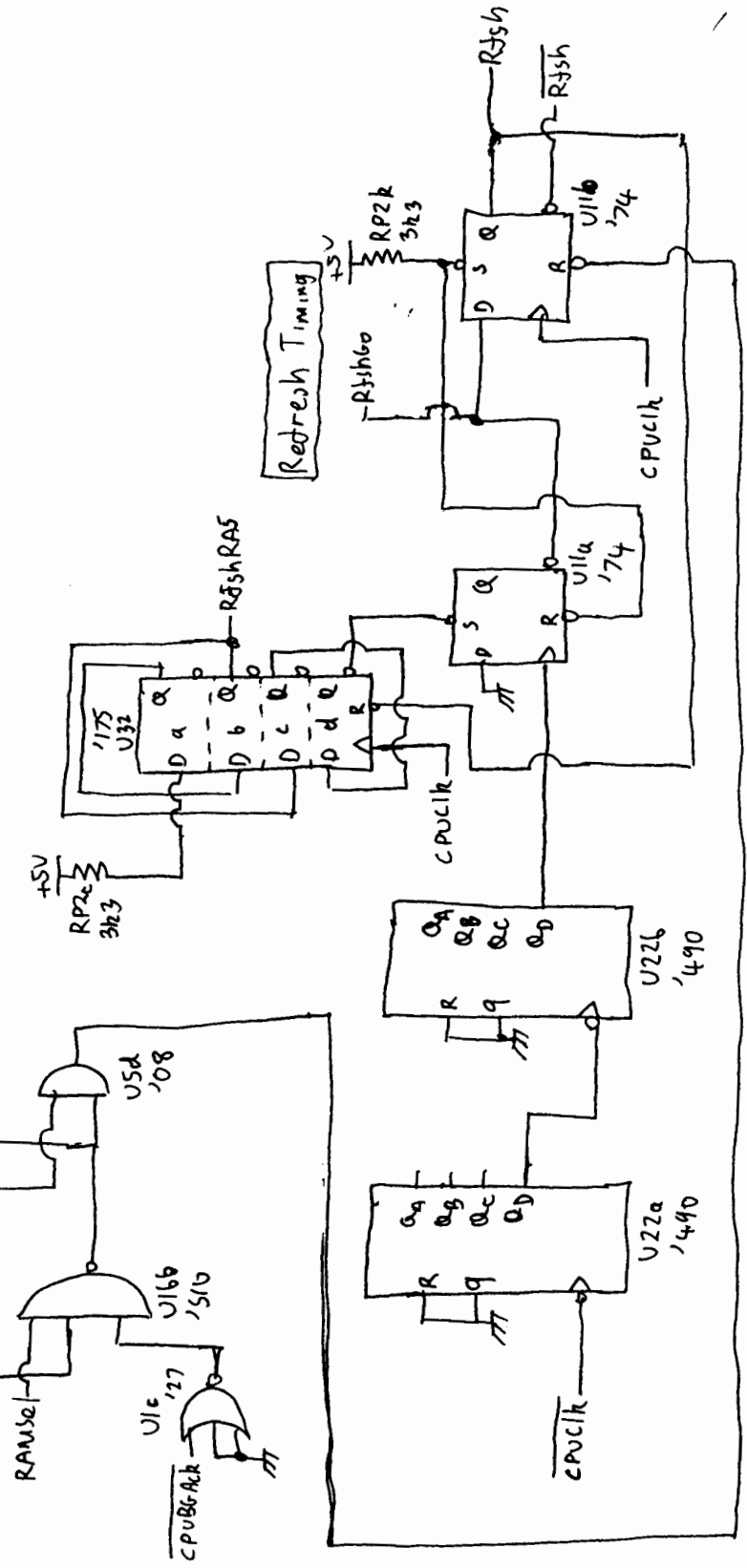
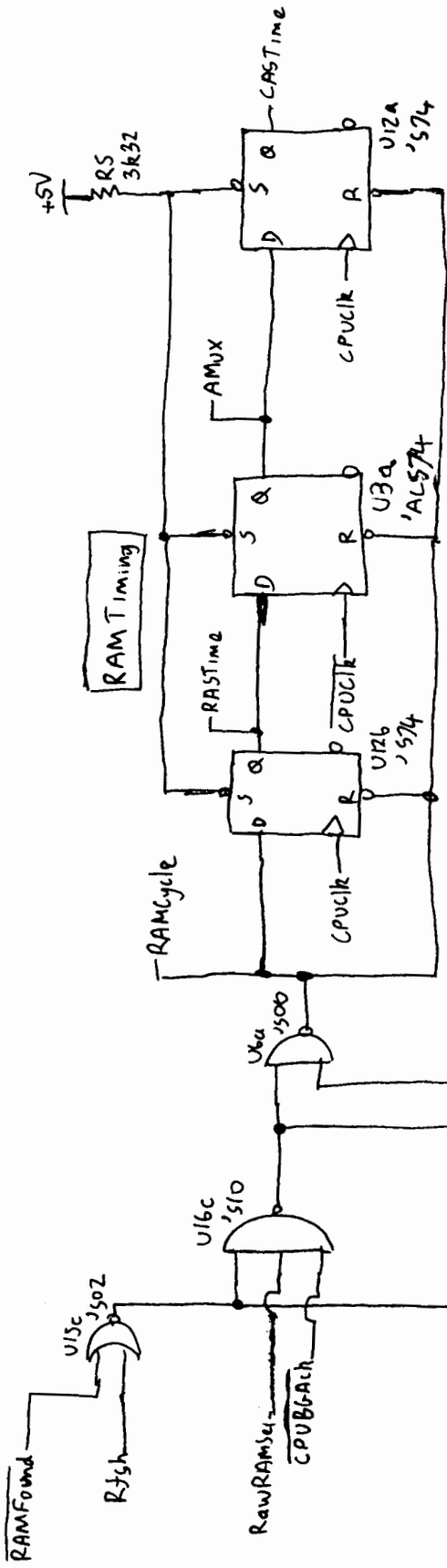
HP9826/HP9836 CPU PCB

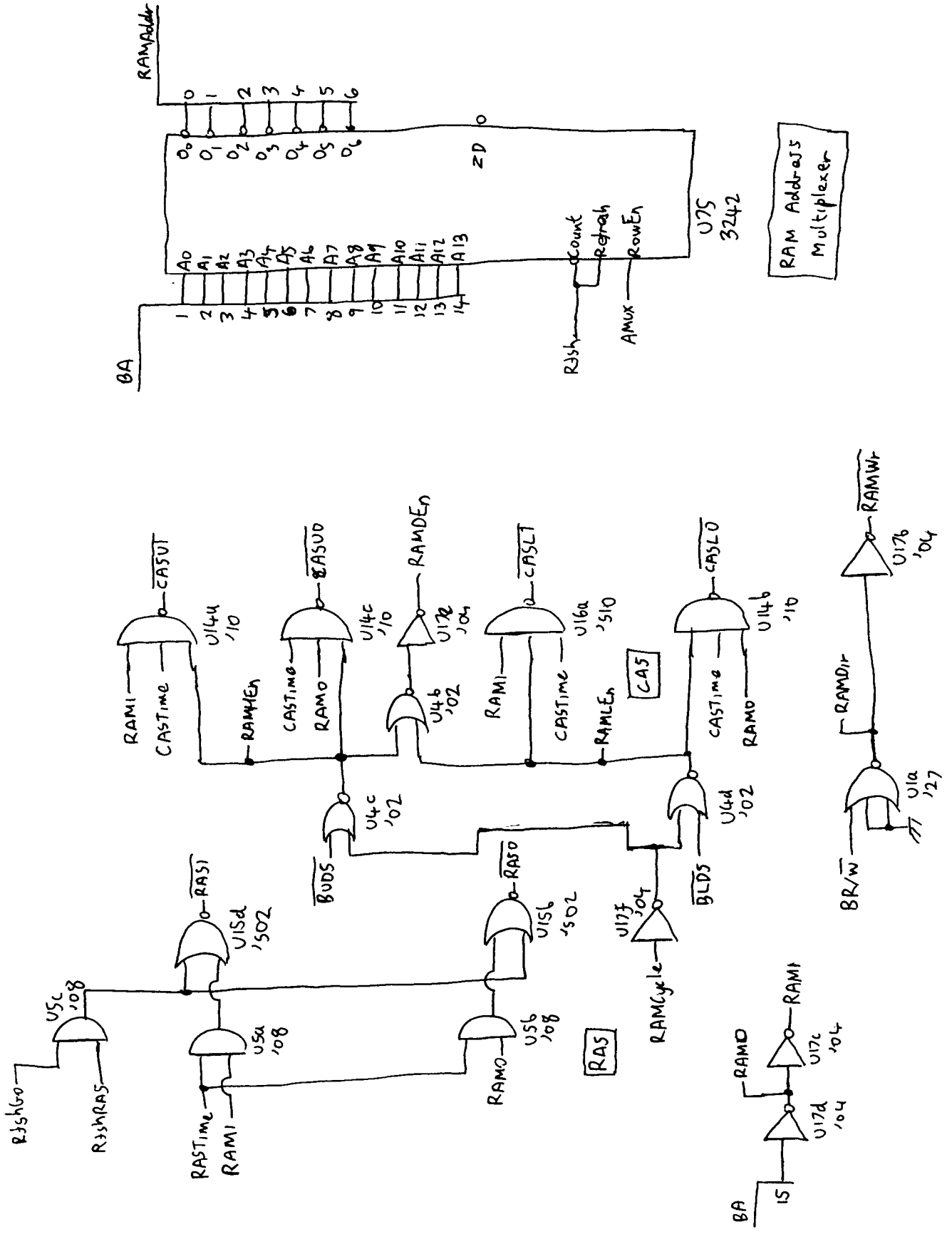


I/O Timing

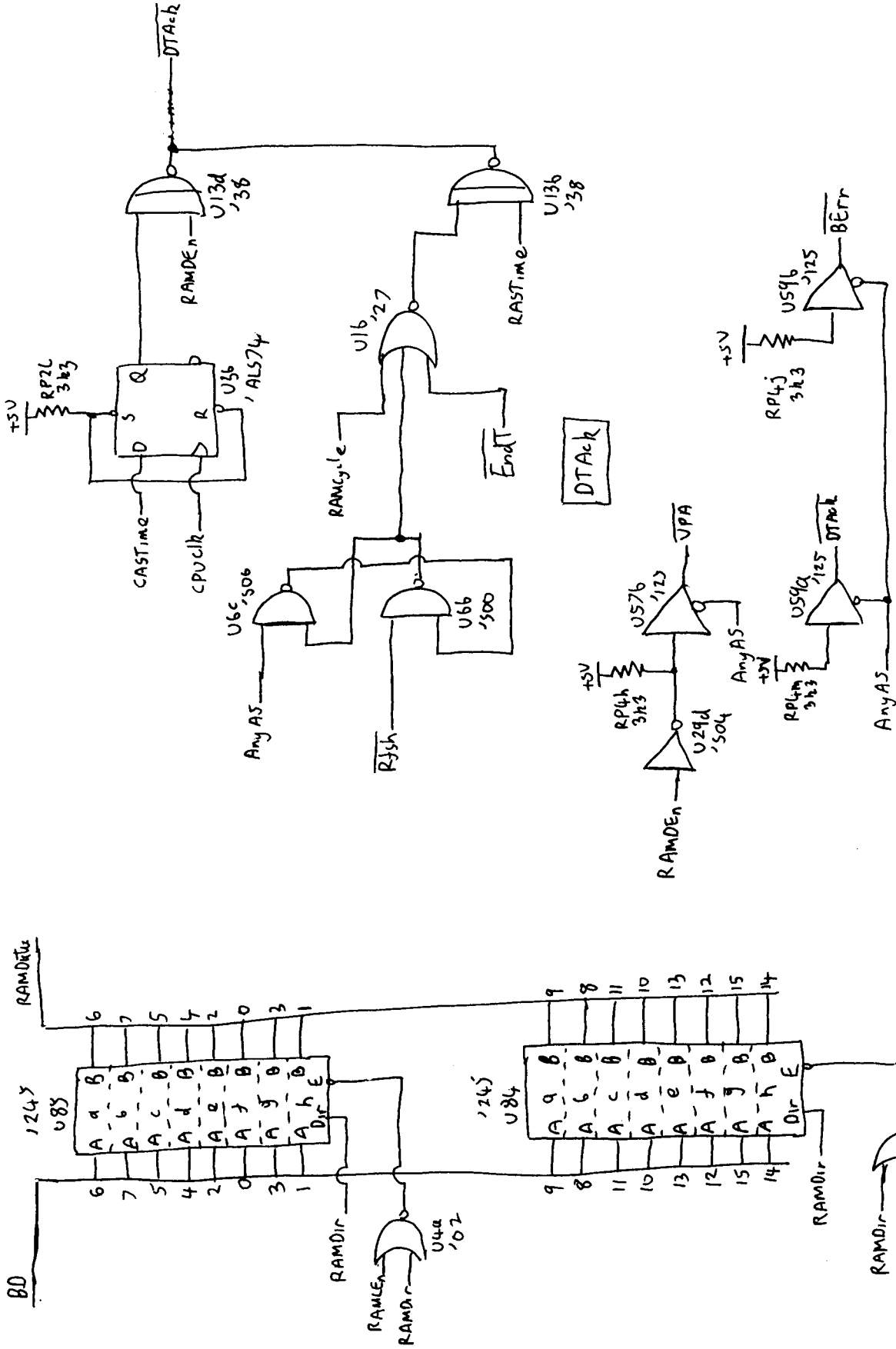


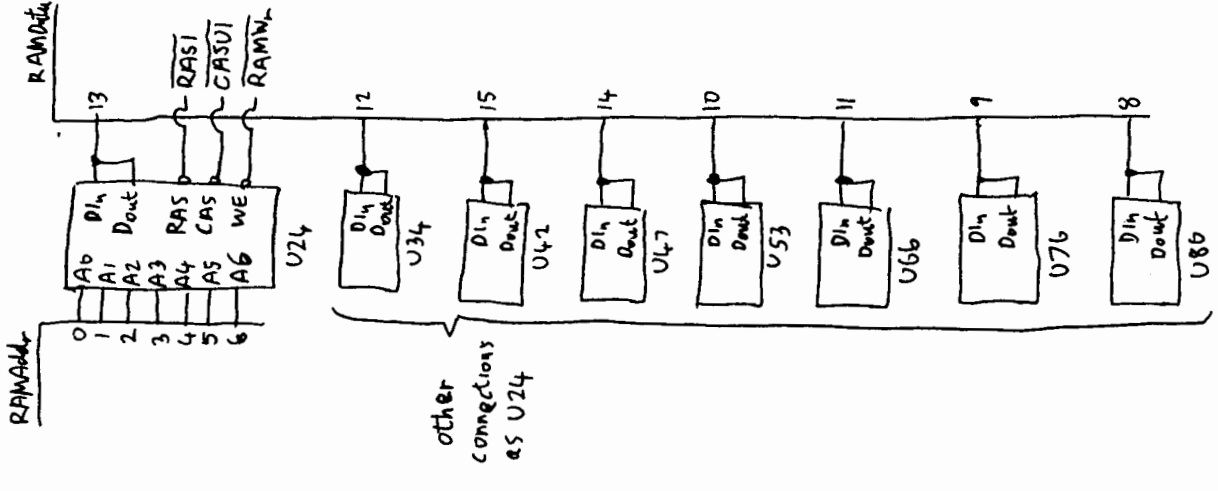
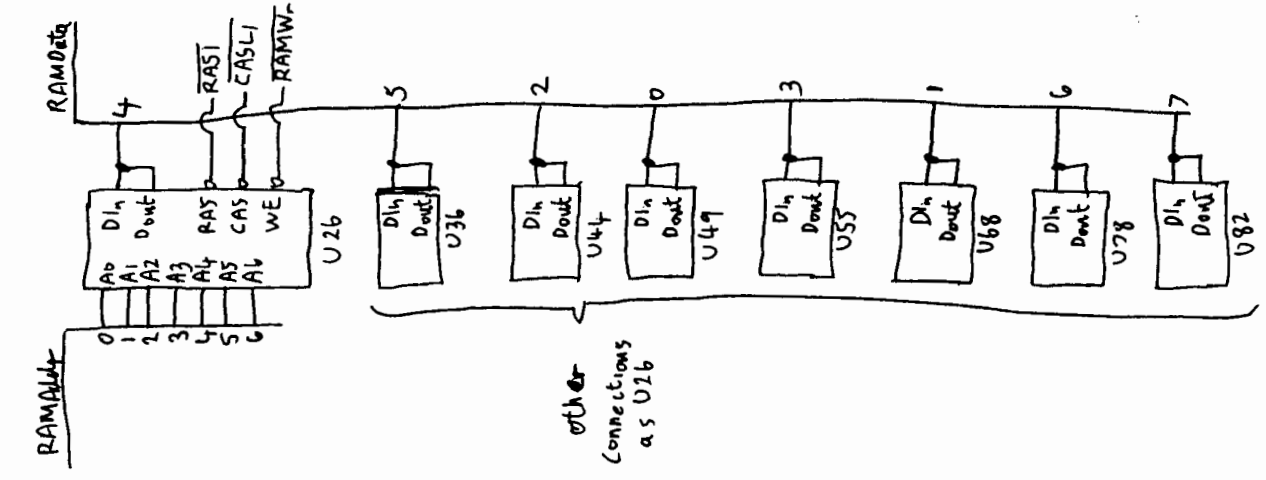
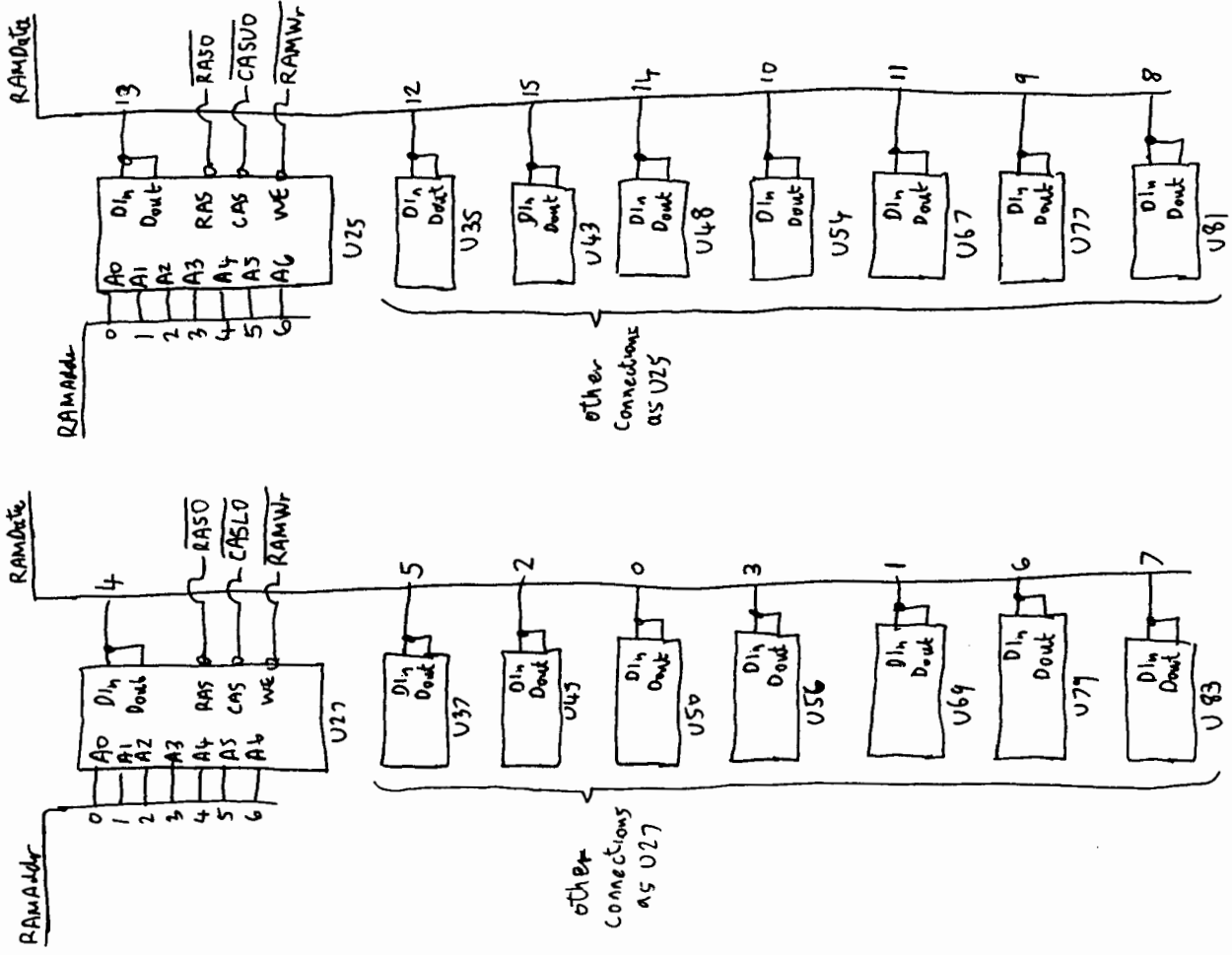
HP9826/ HP9836 CPU PCB Sheet 6 09826-69515 (Brlca)





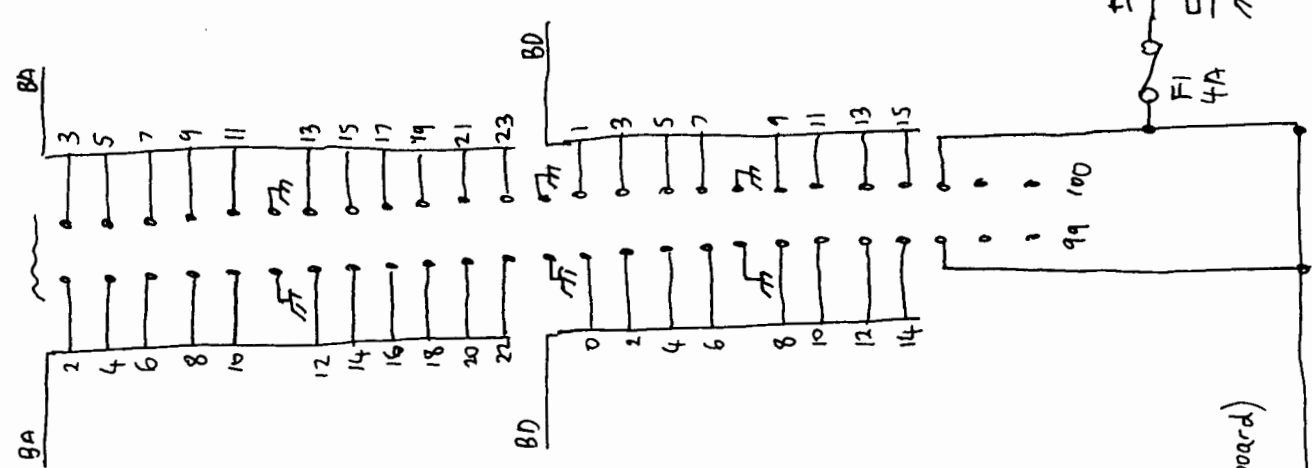
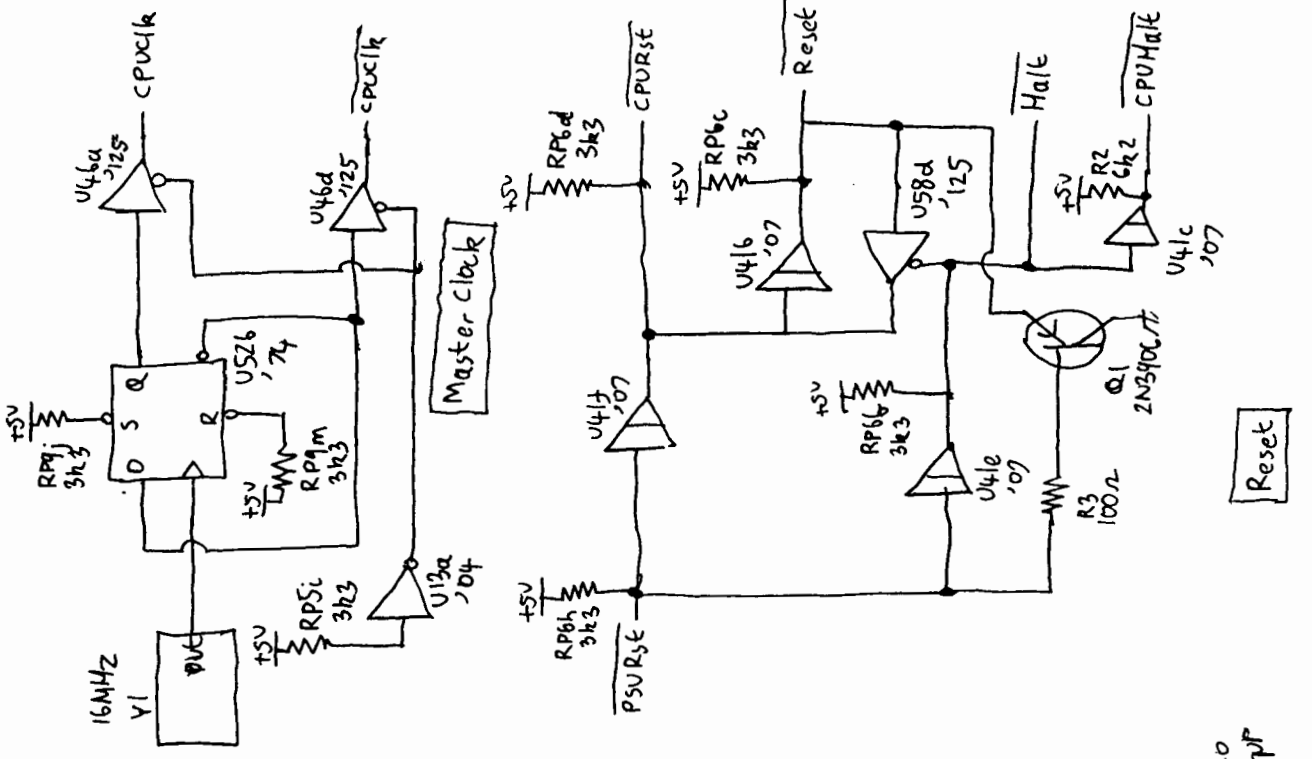
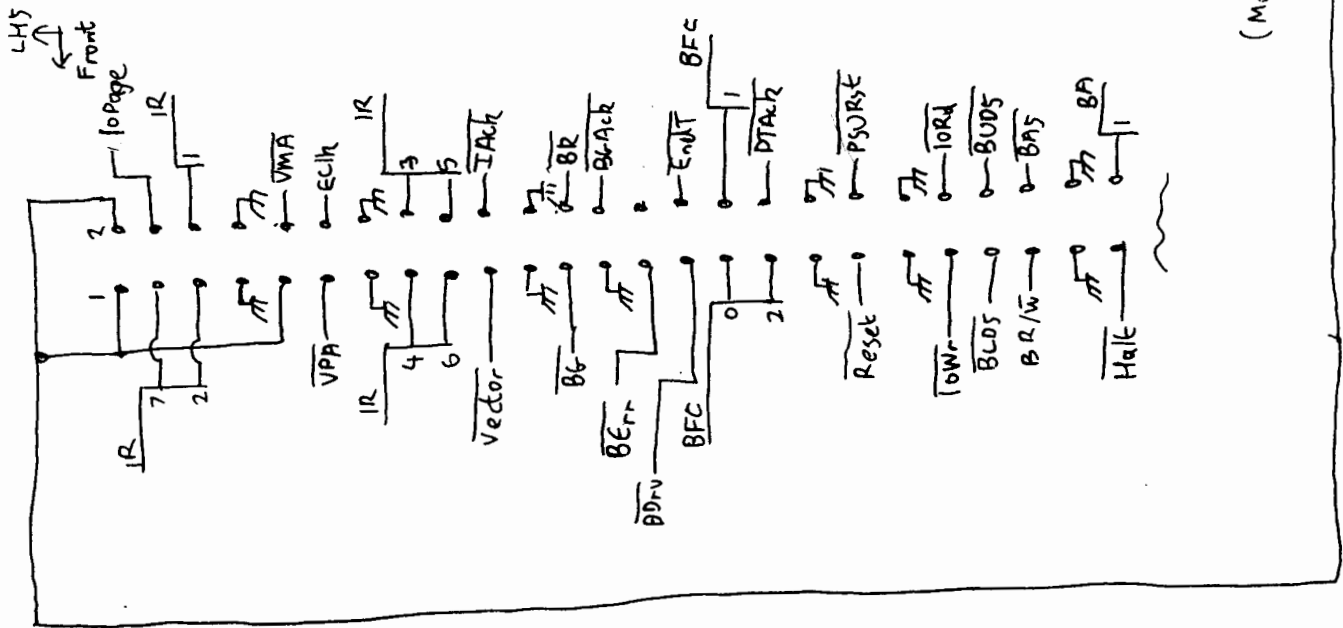
RAM Address Multiplexer

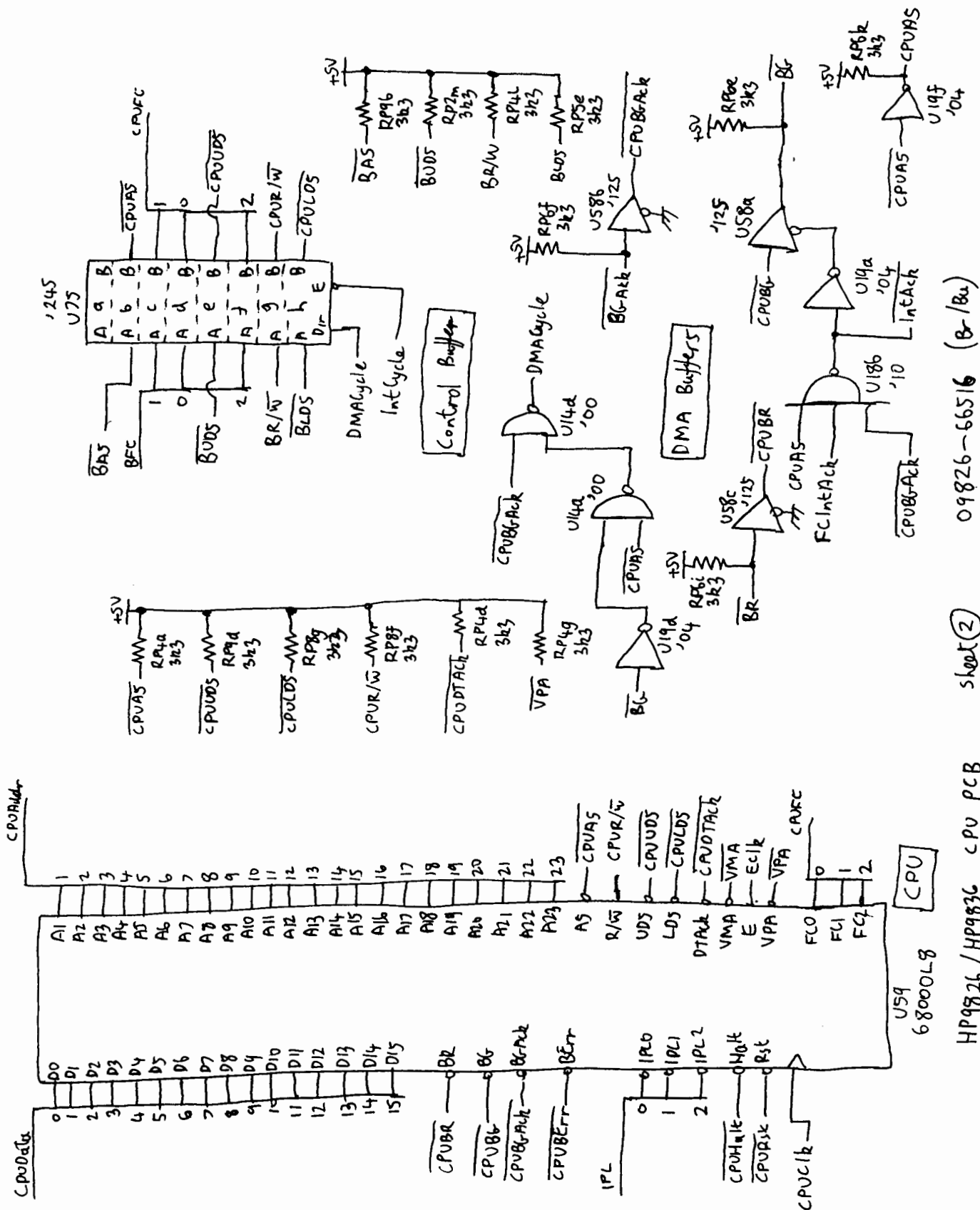




RAM

All RAMs: 4816

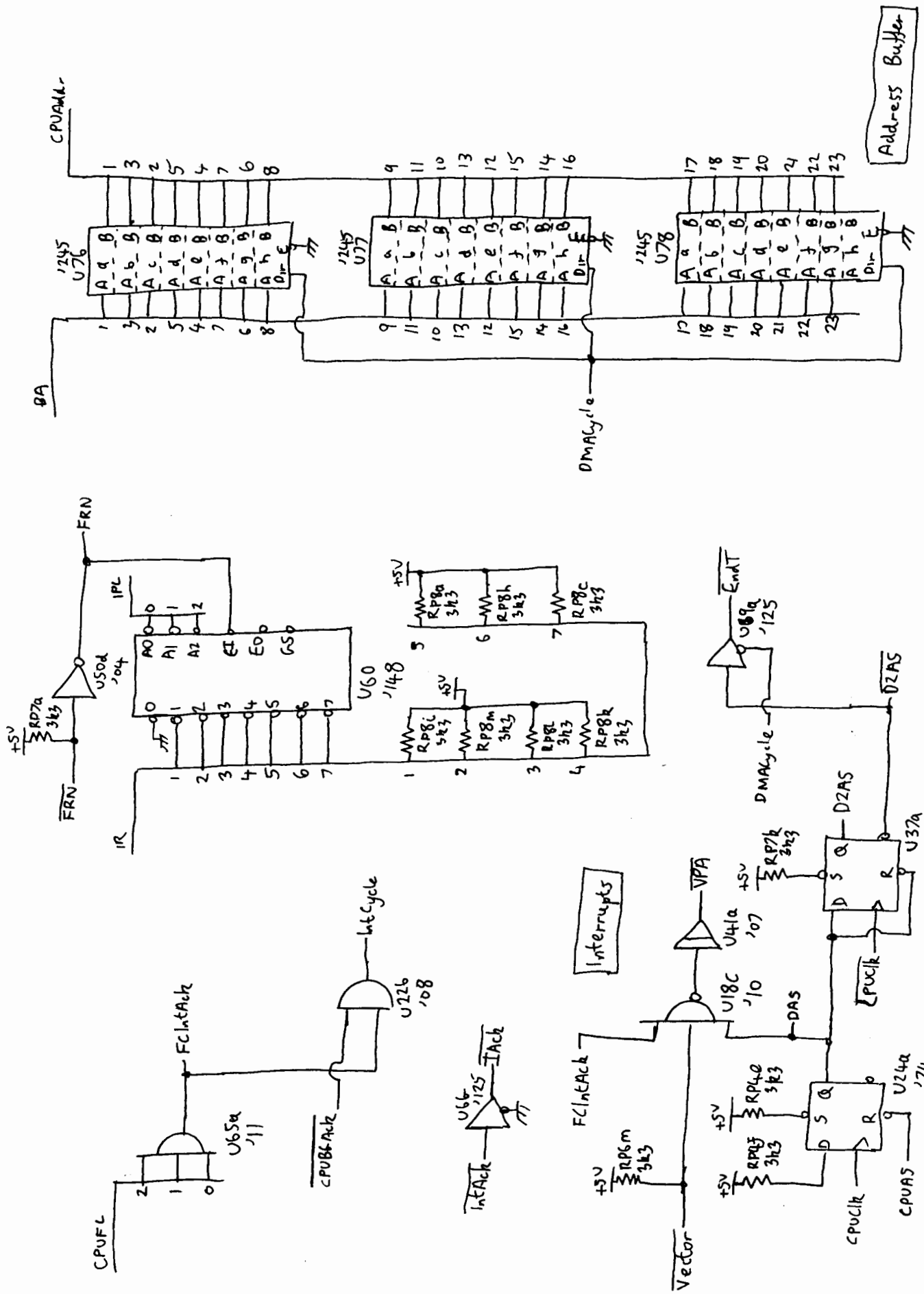




09826-66516 (Br/Bu)

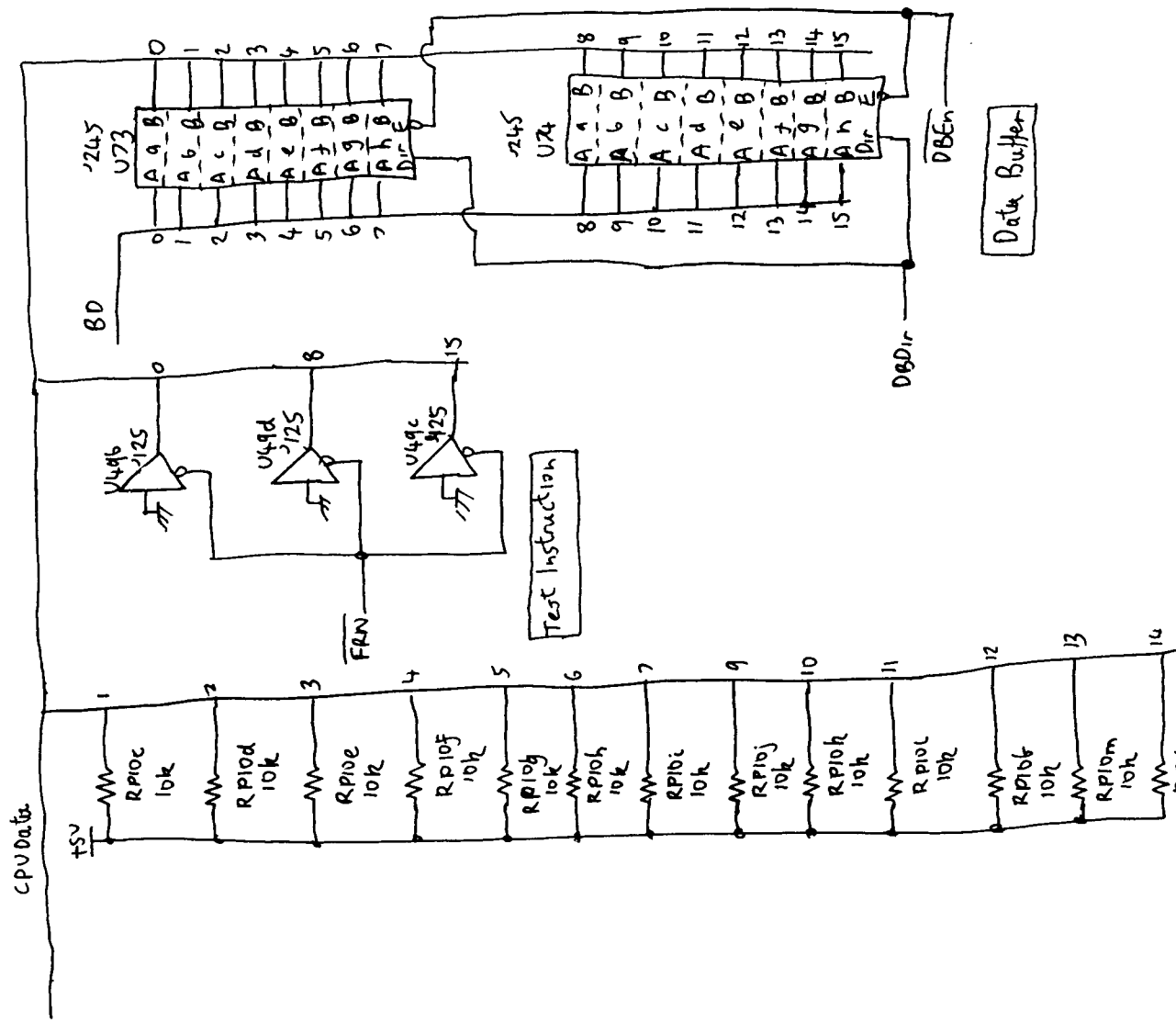
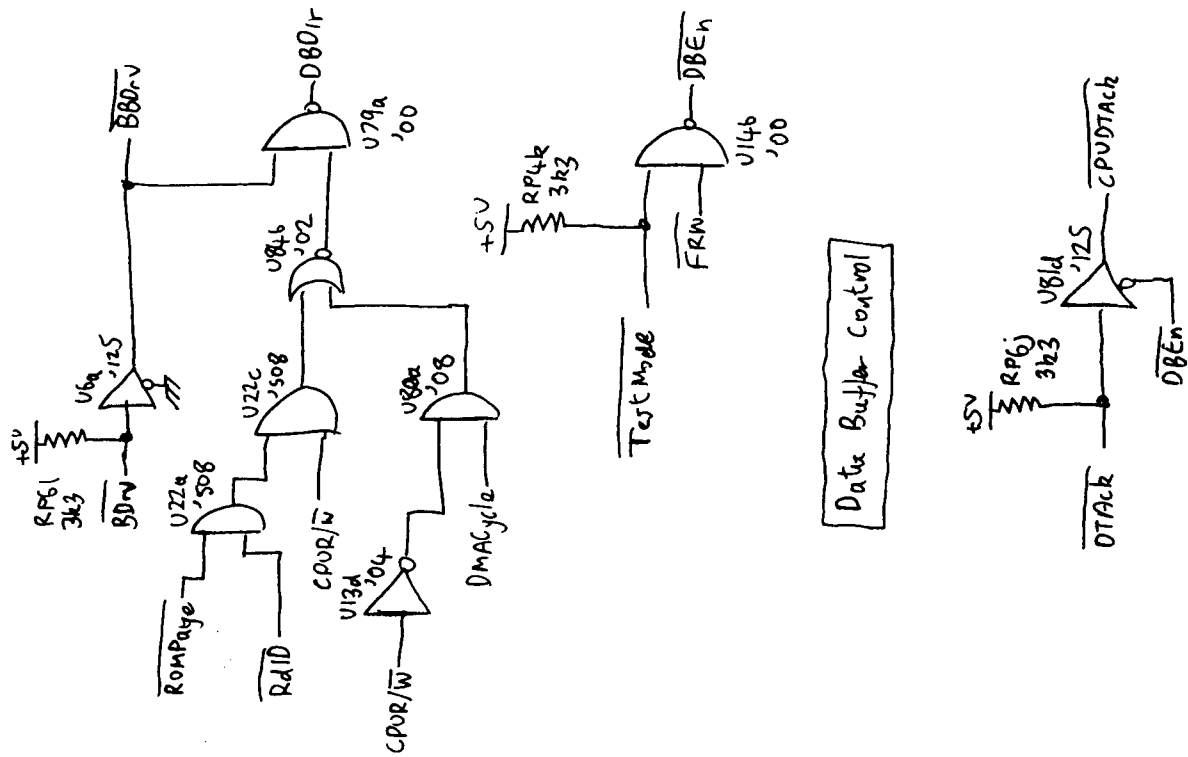
Sheet 2

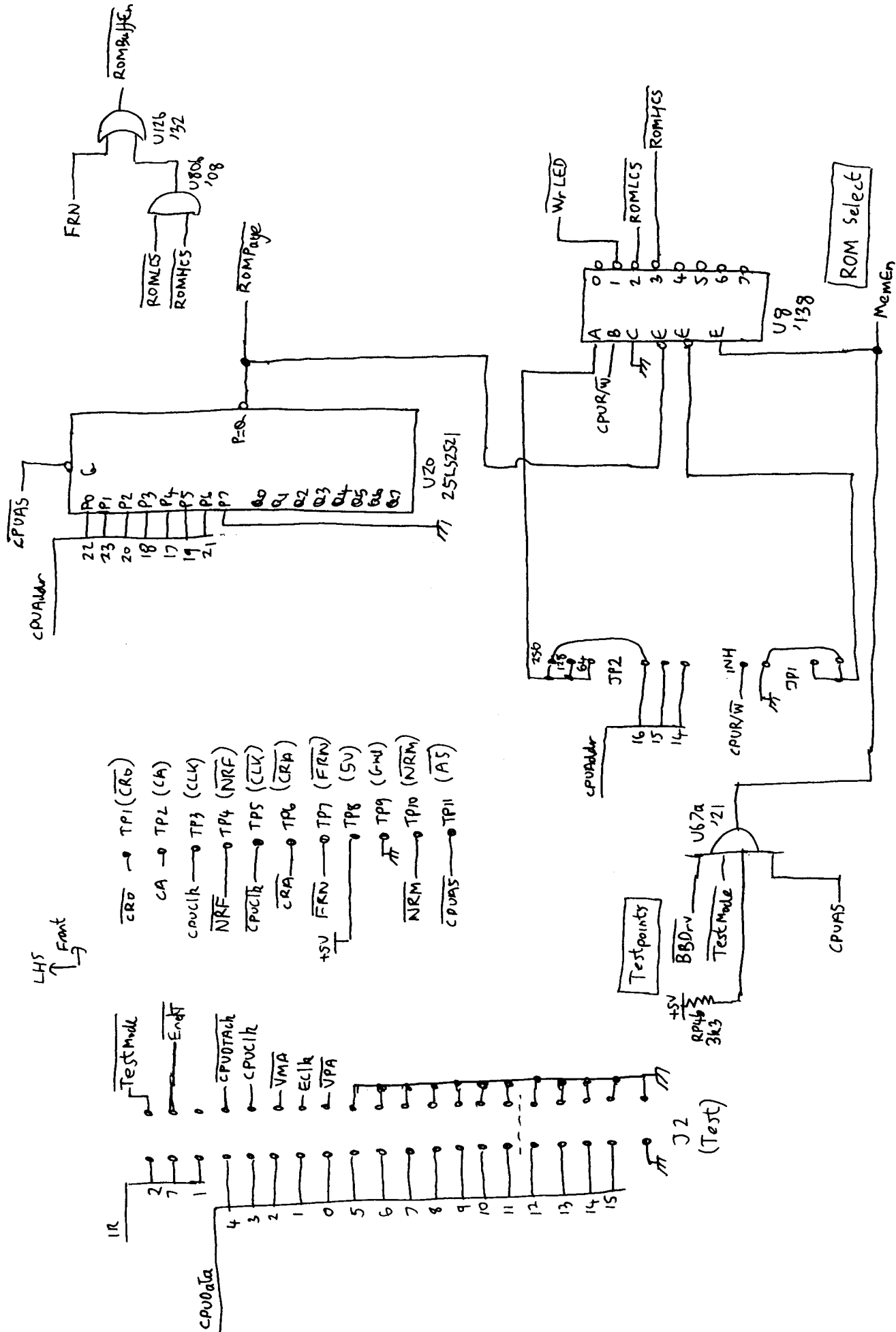
HP9826/HP9836 CPU PCB



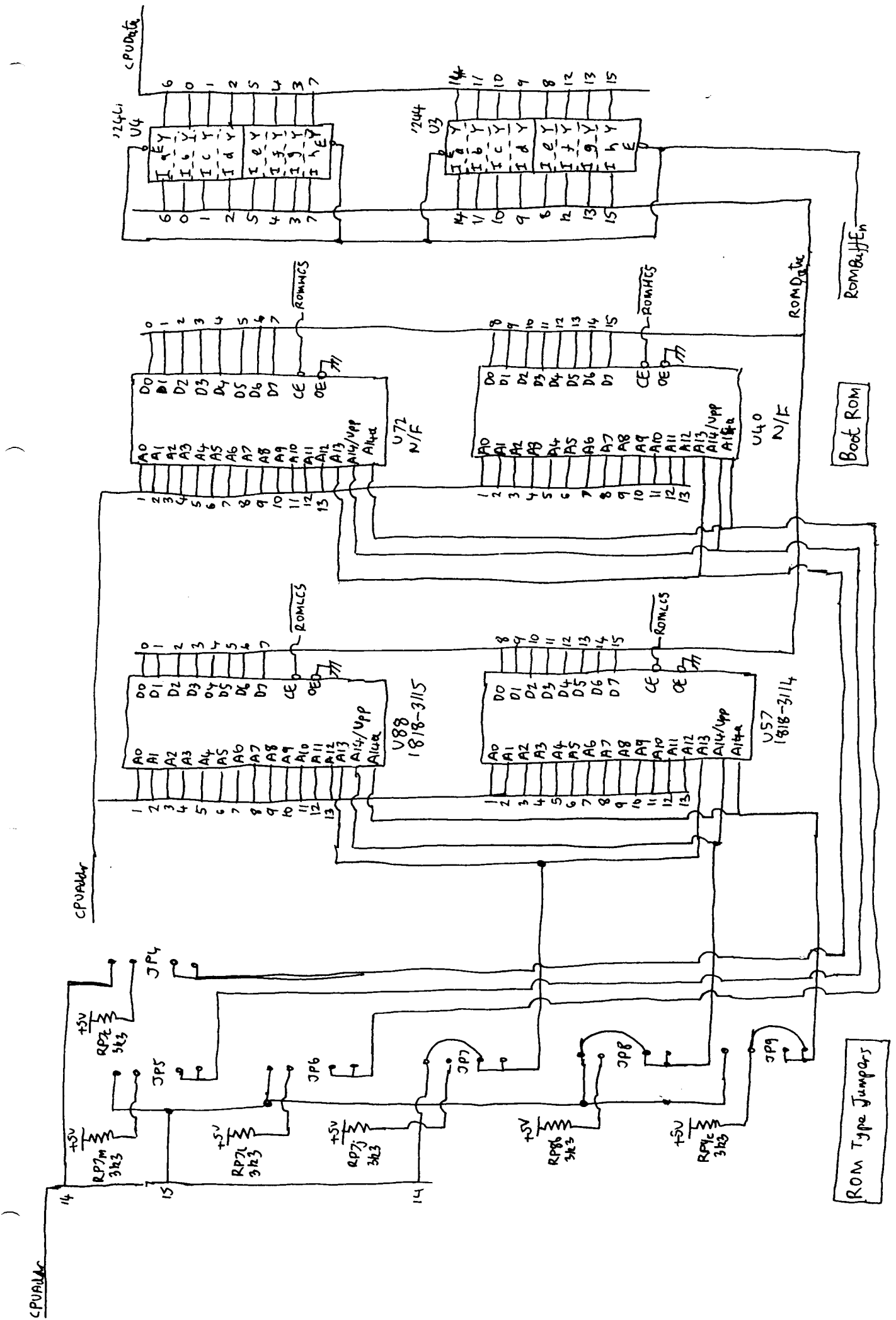
09826-66516 (B-15u)

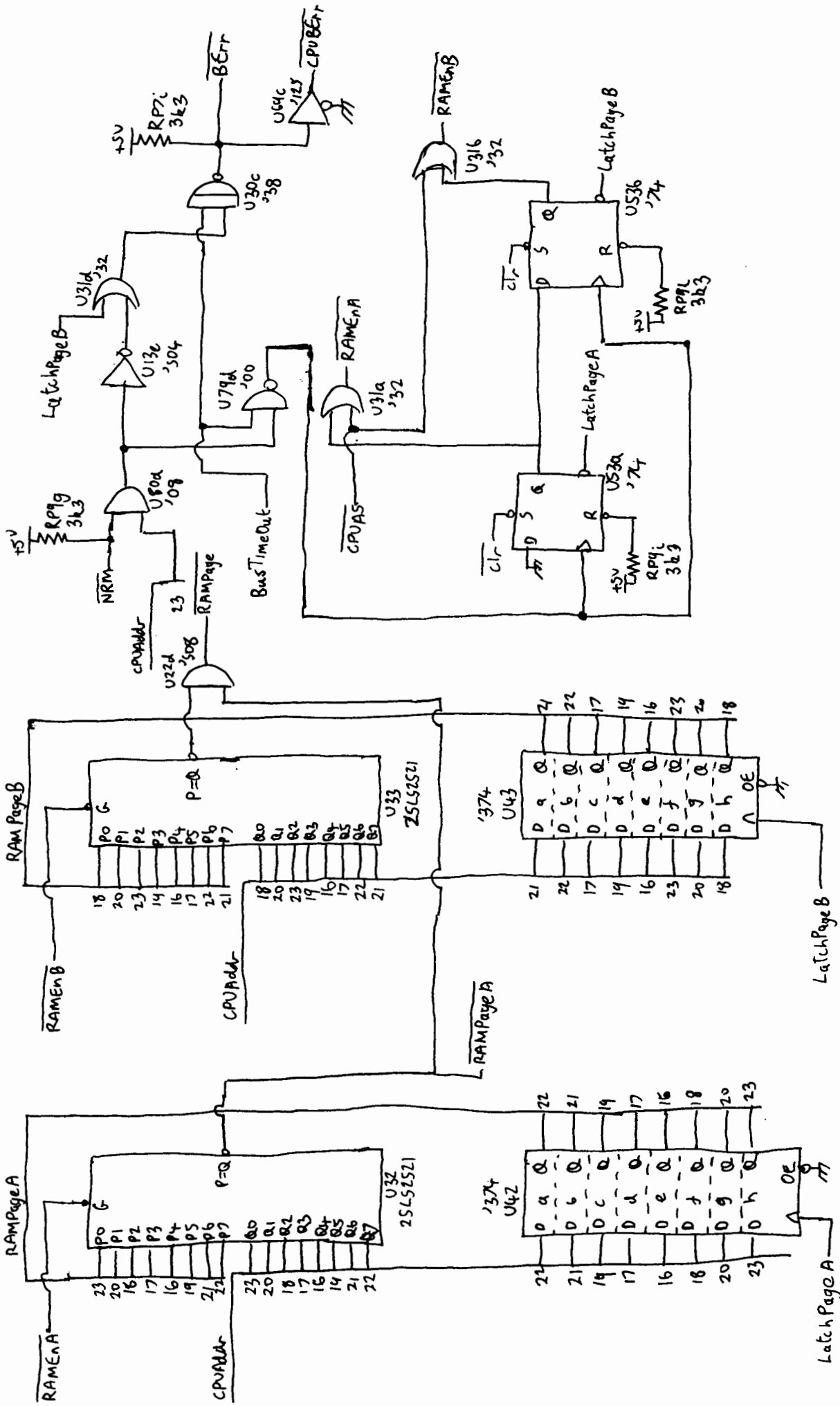
HP9836 / HP9836 CPU PCB Sheet 3



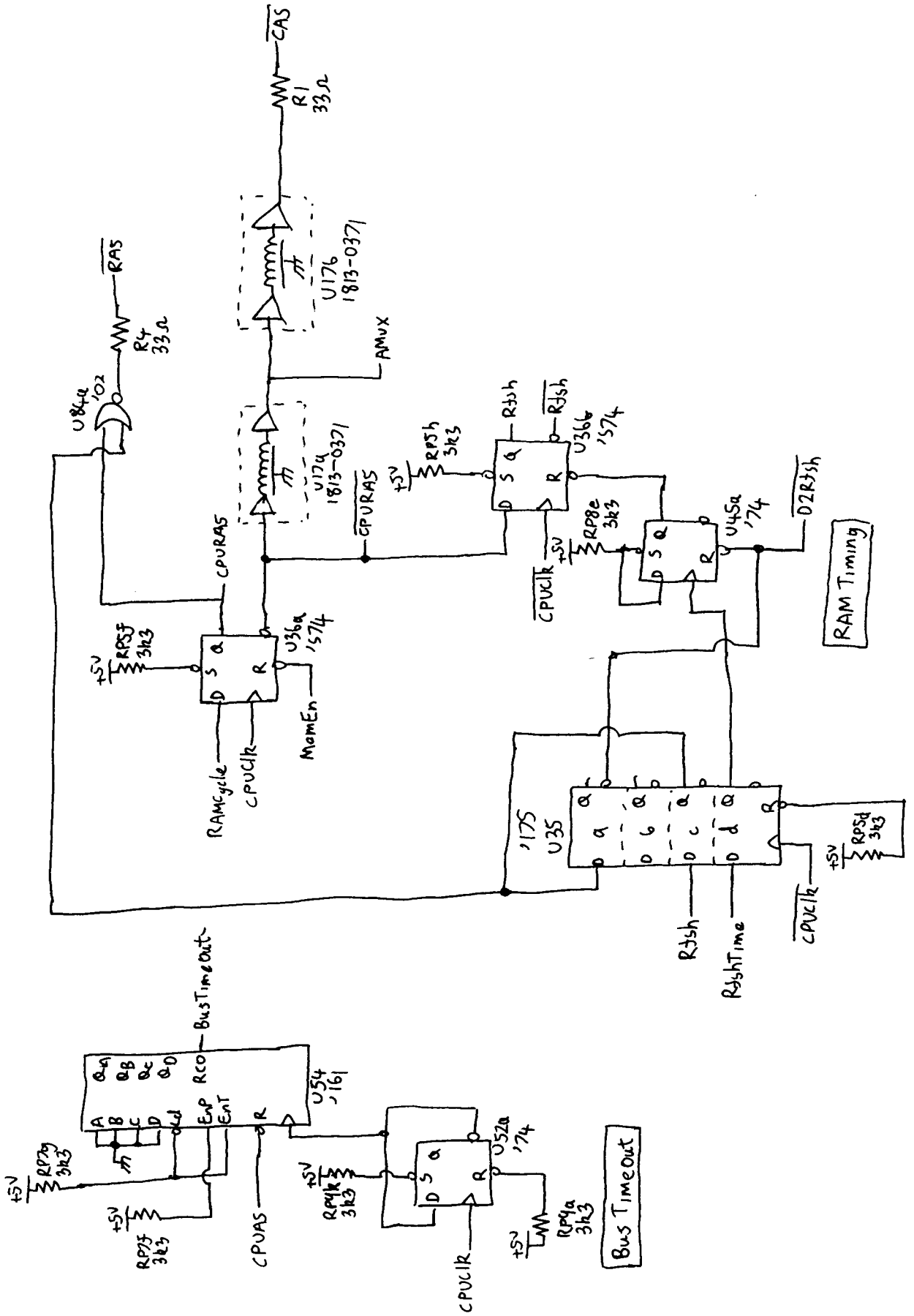


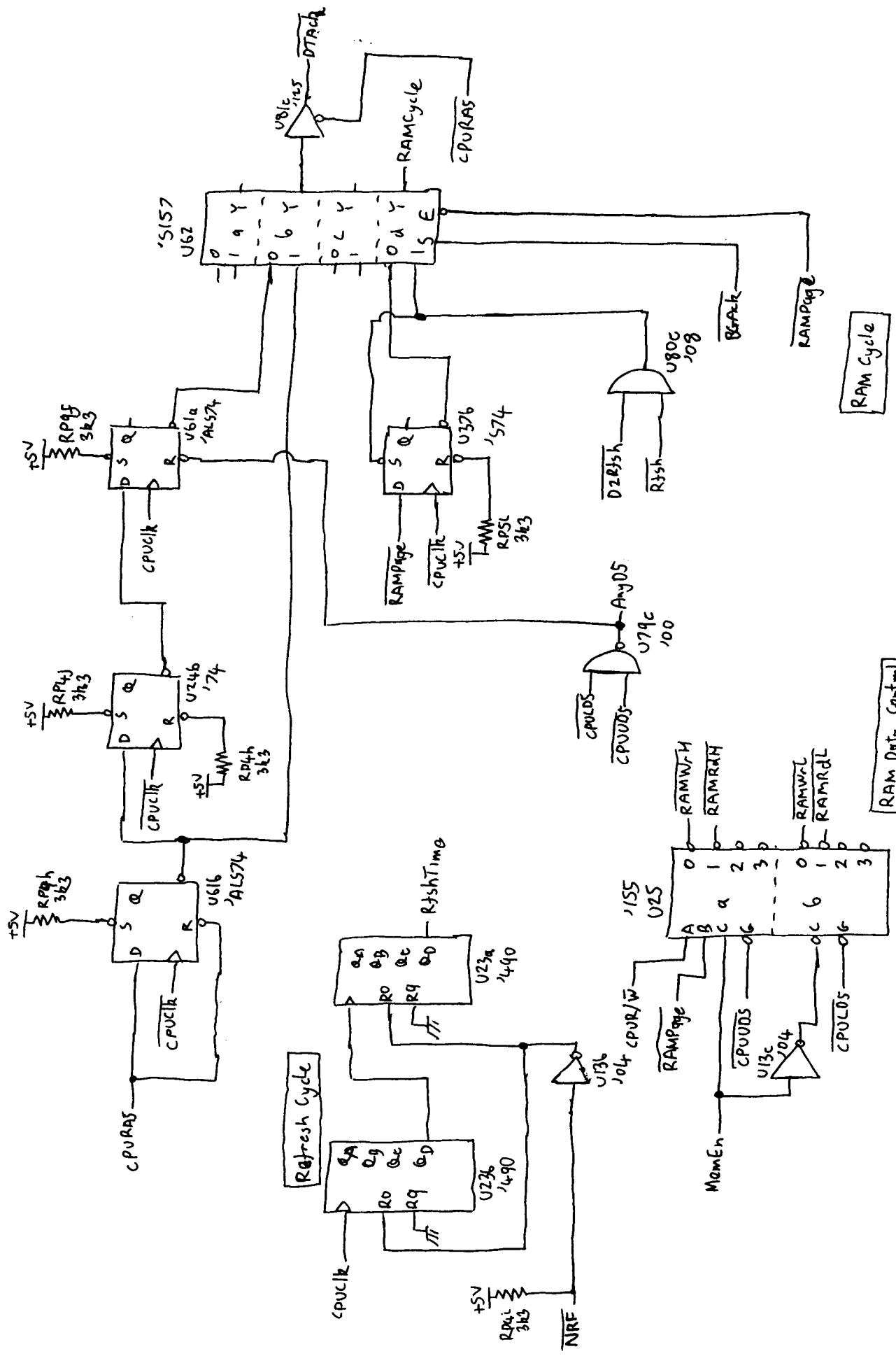
LHS
↑ Front





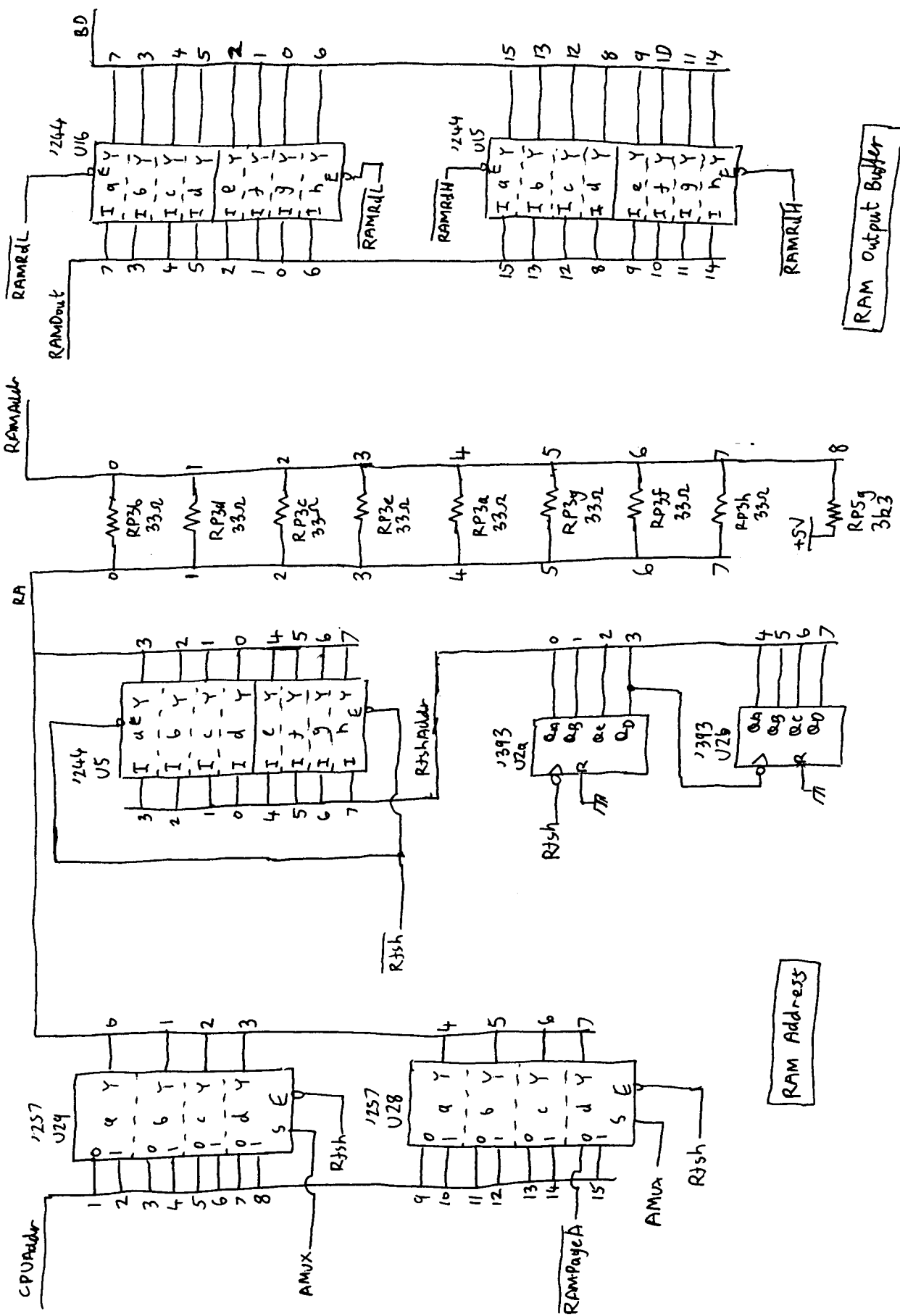
RAM Page Address





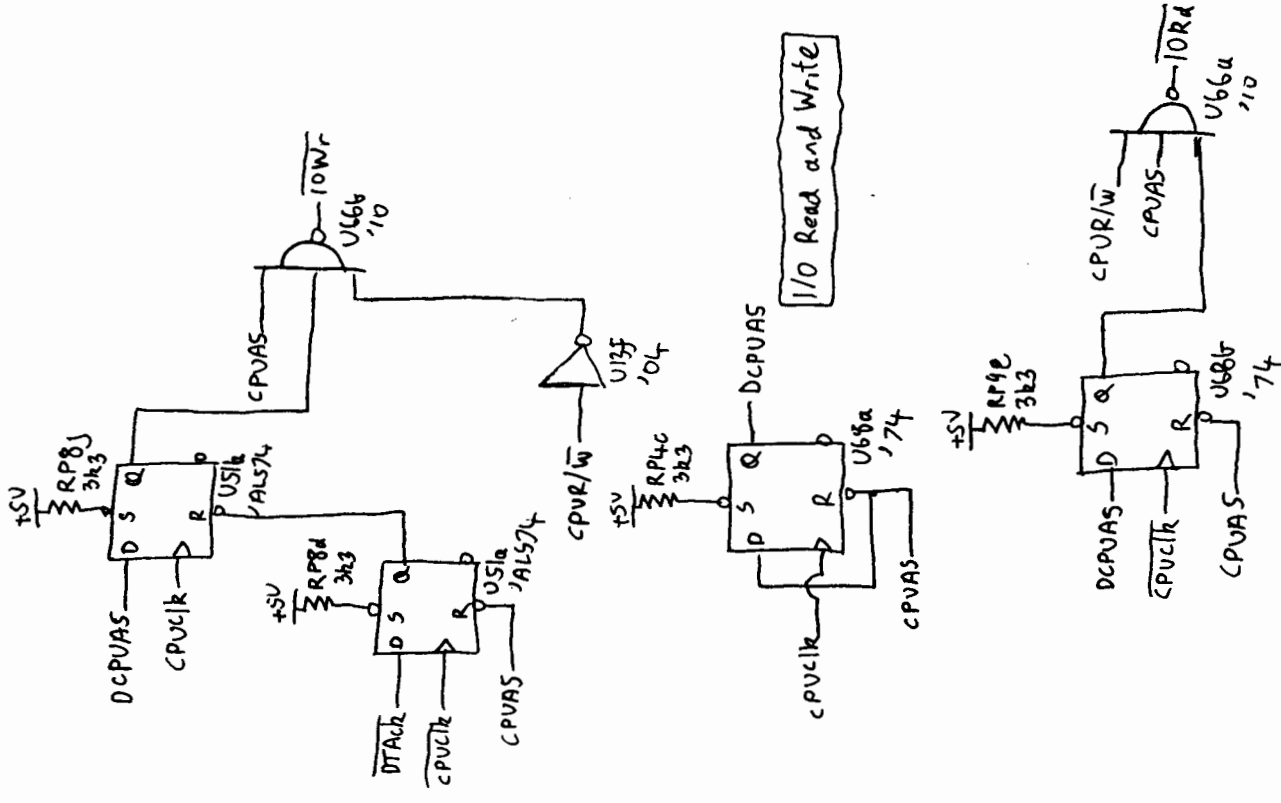
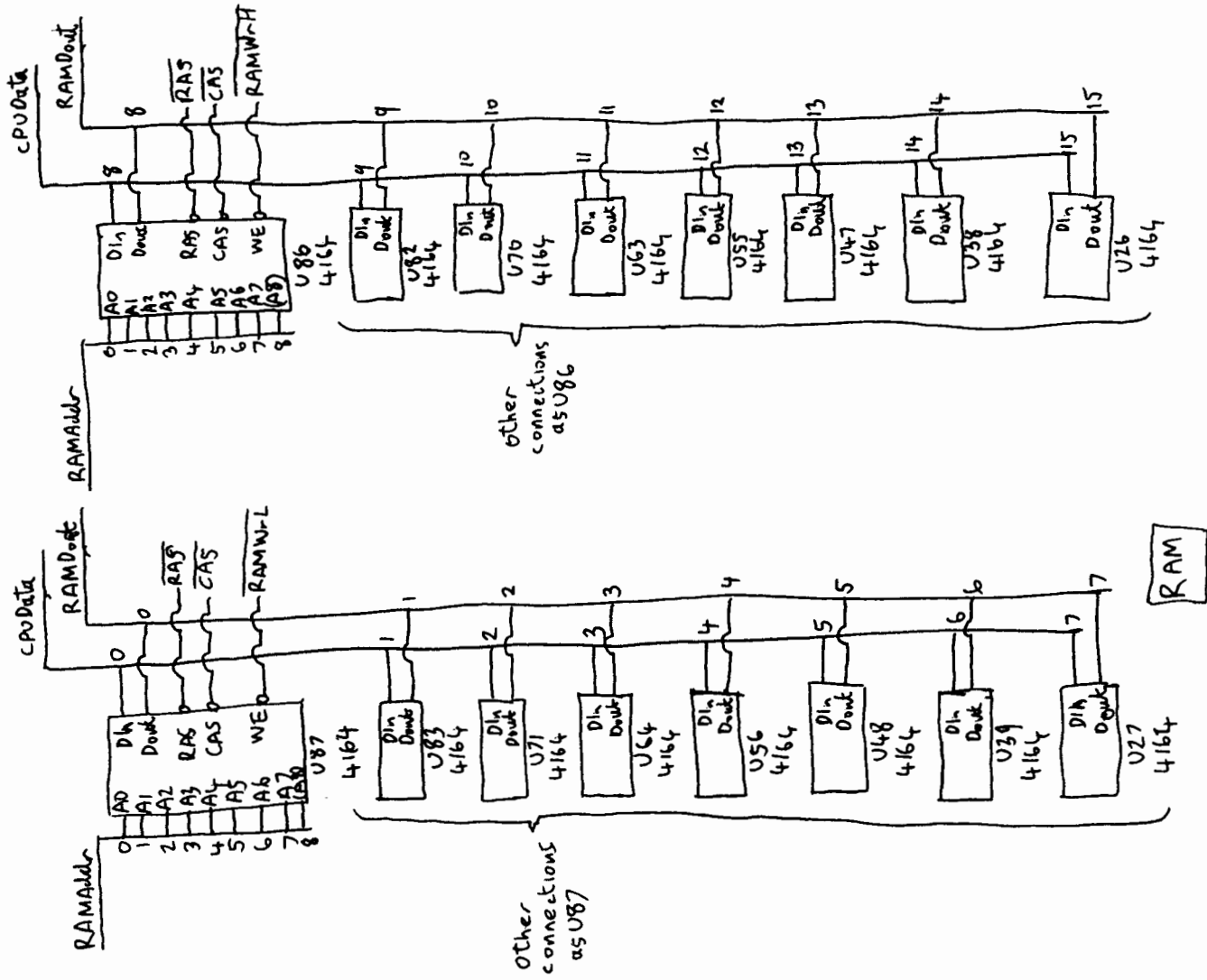
RAM Data Control

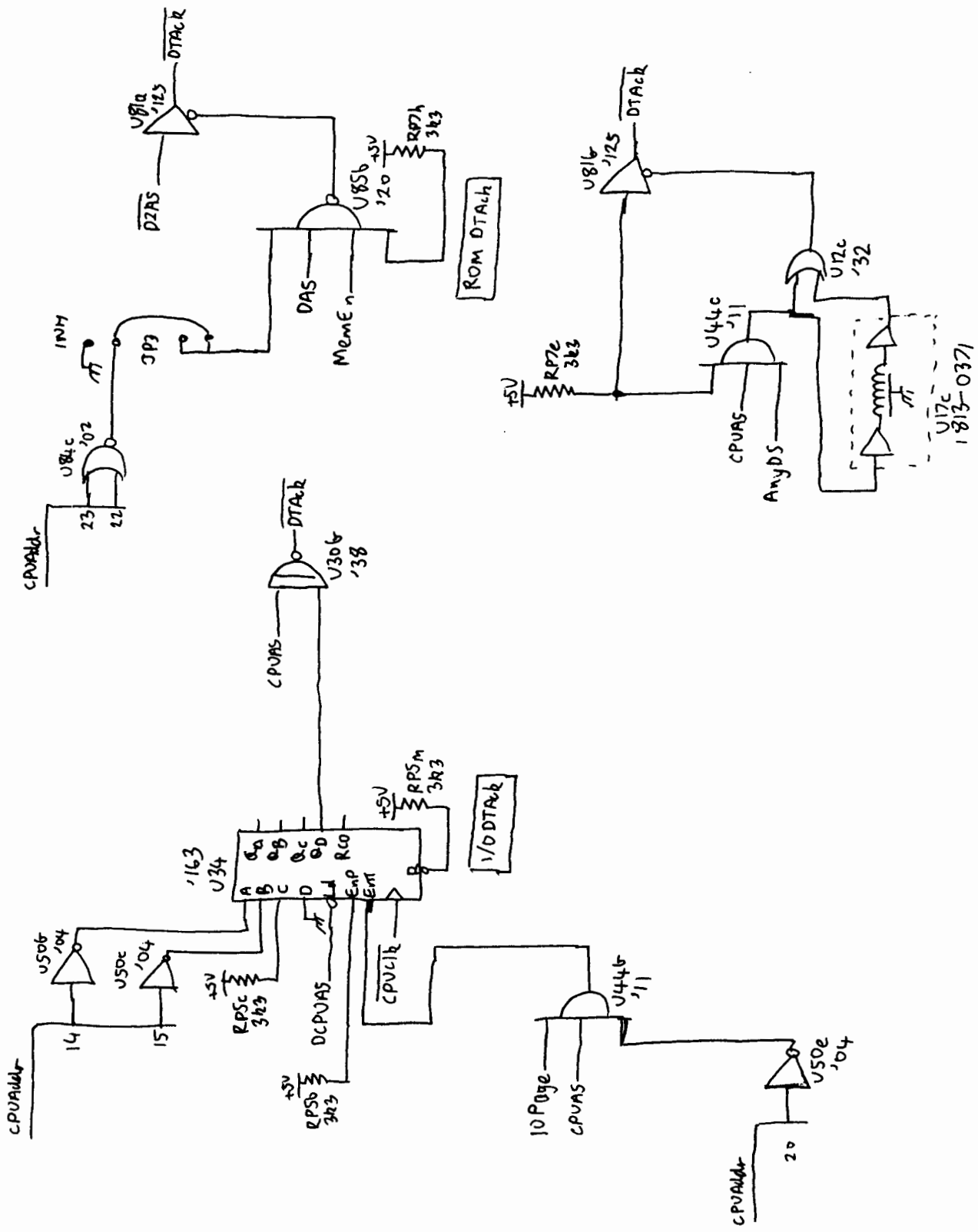
RAM Cycle

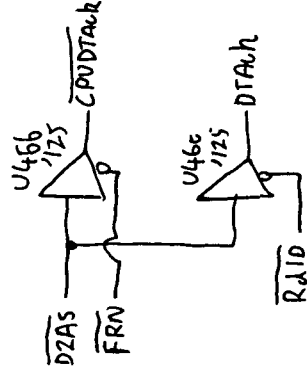
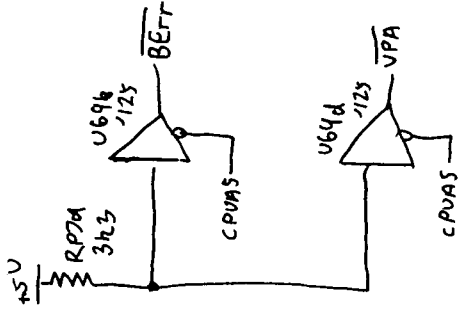
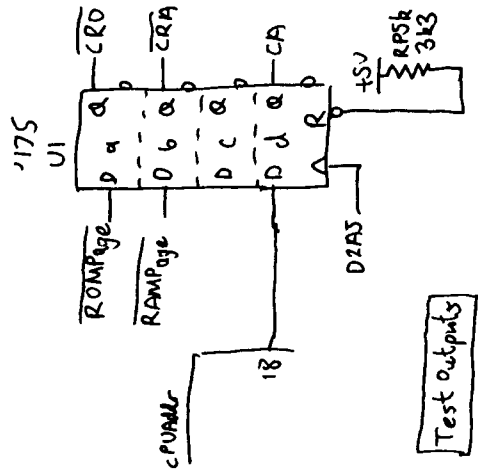


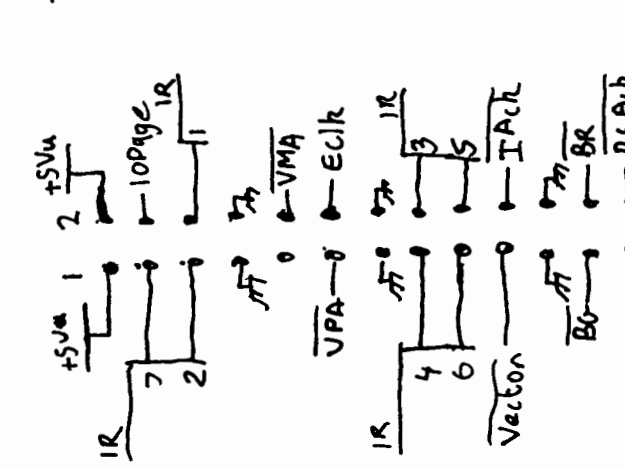
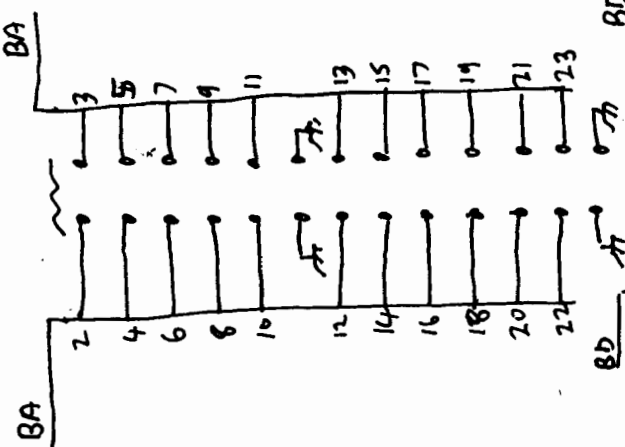
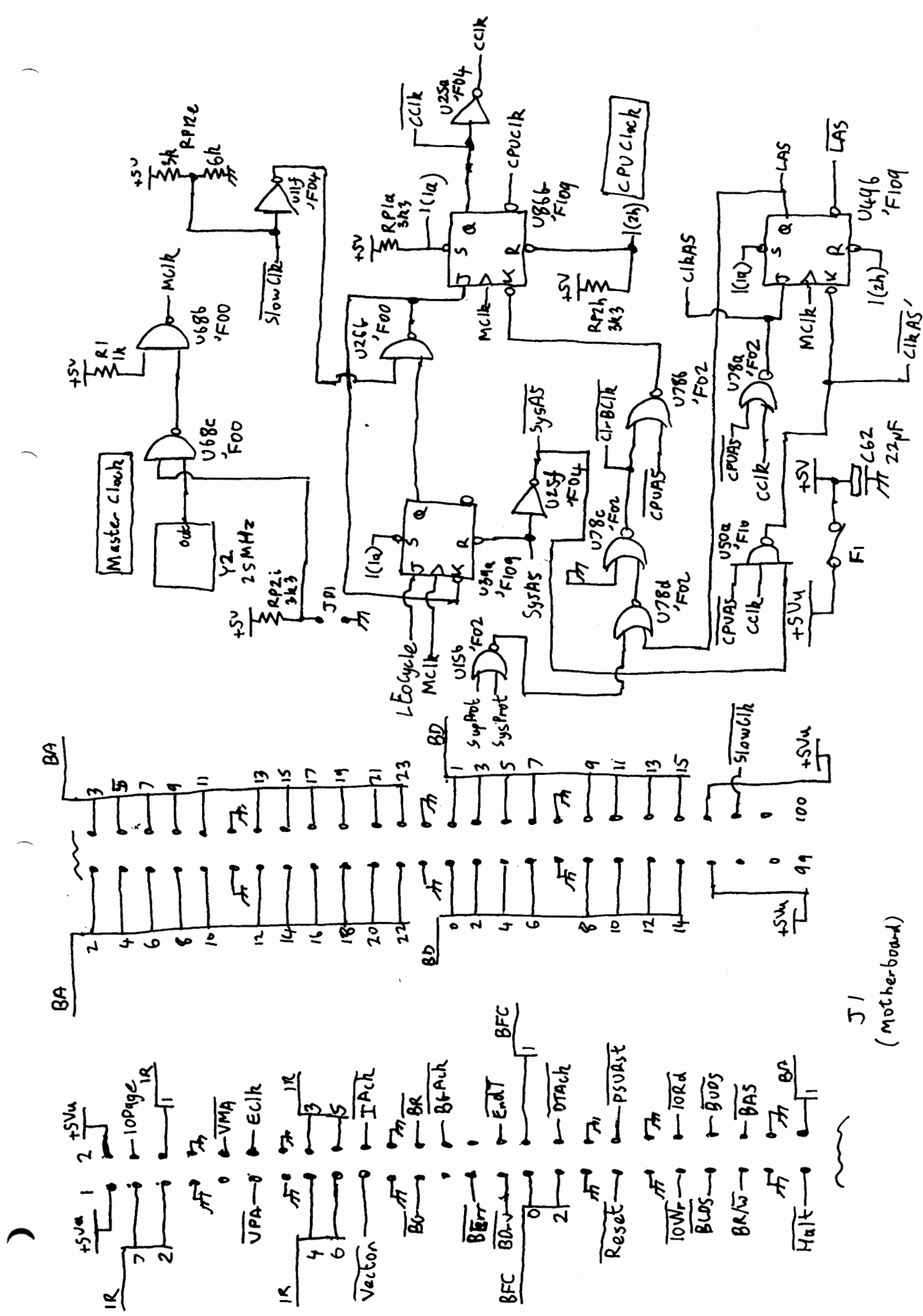
RAM Address

RAM Output Buffer

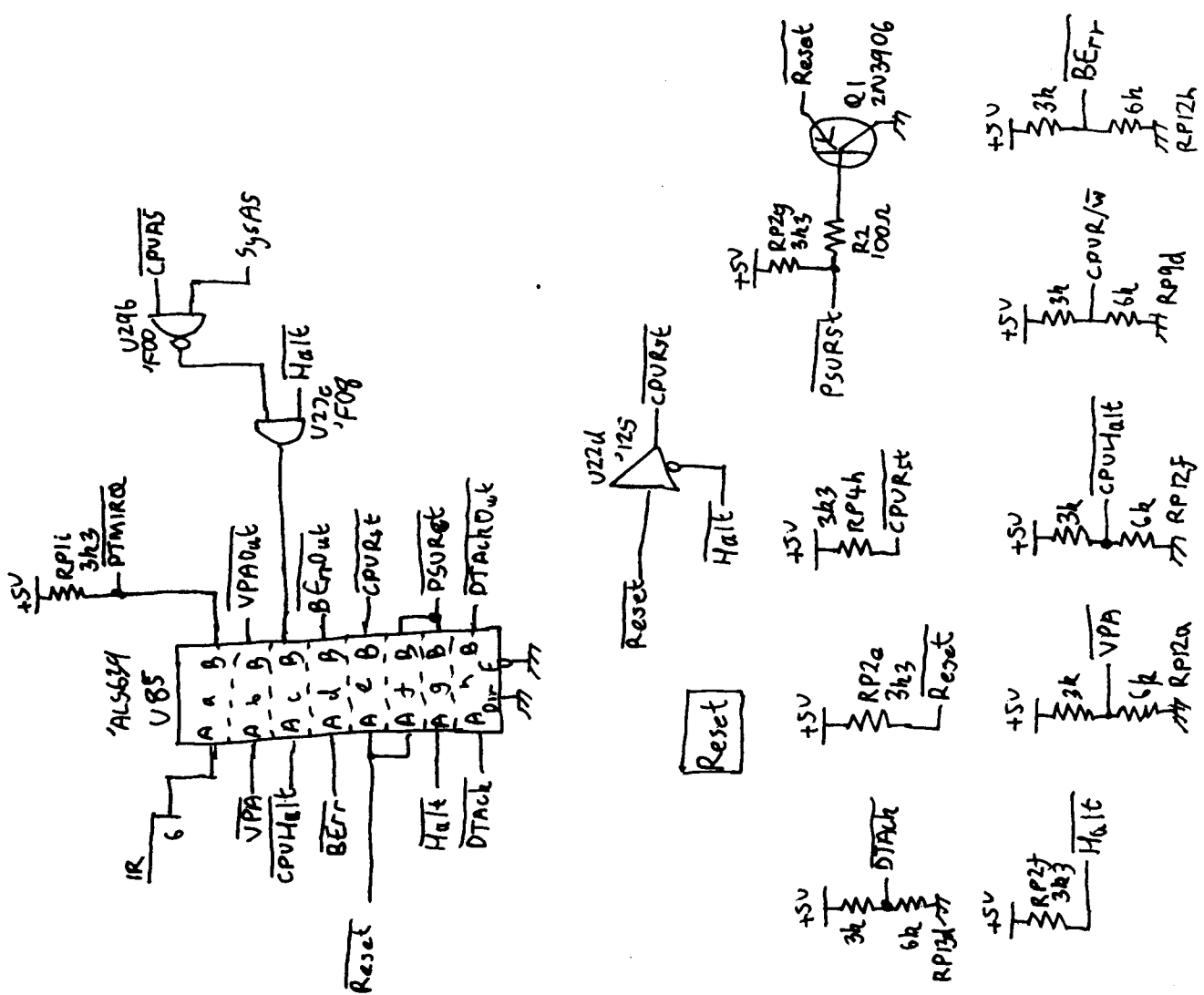
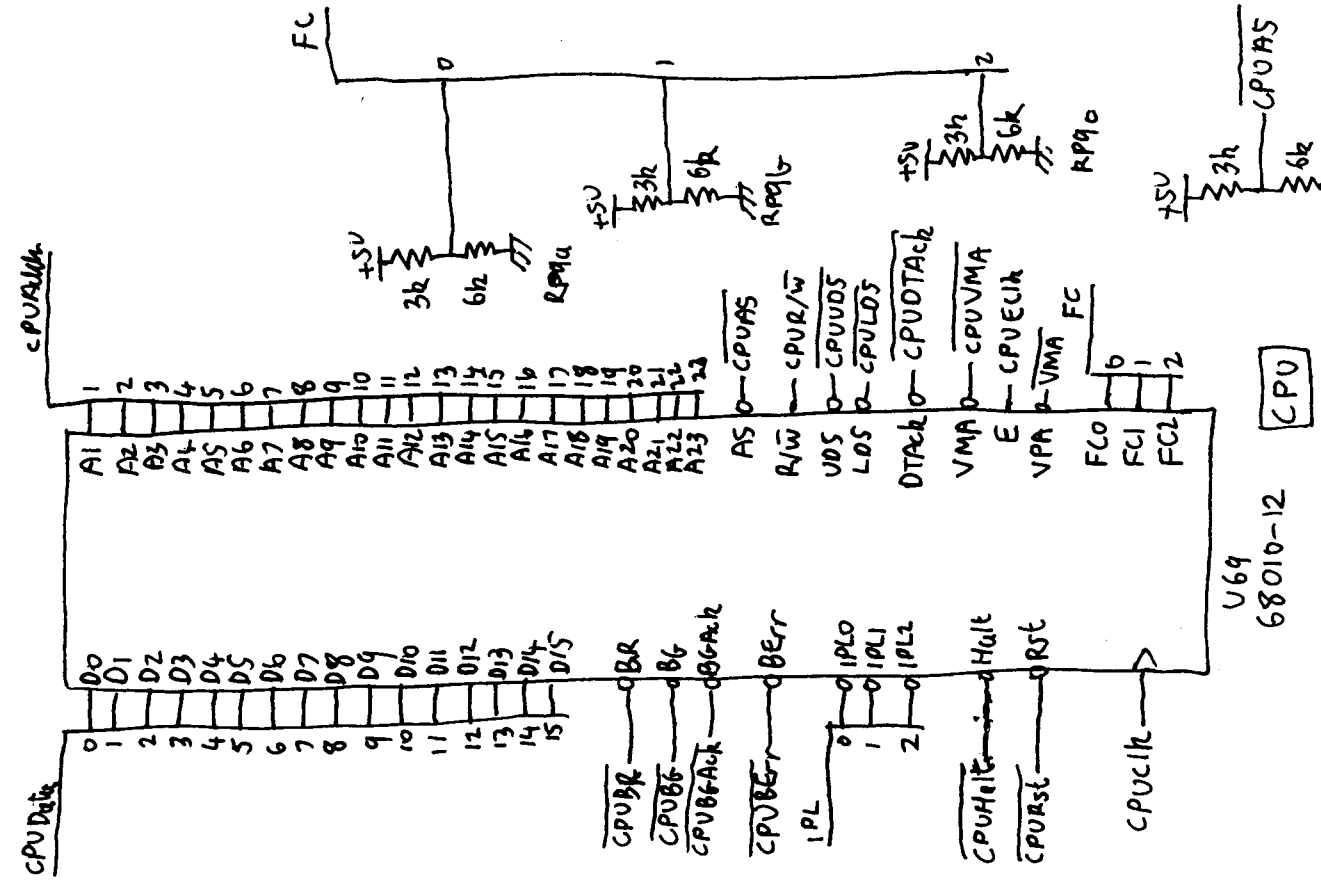


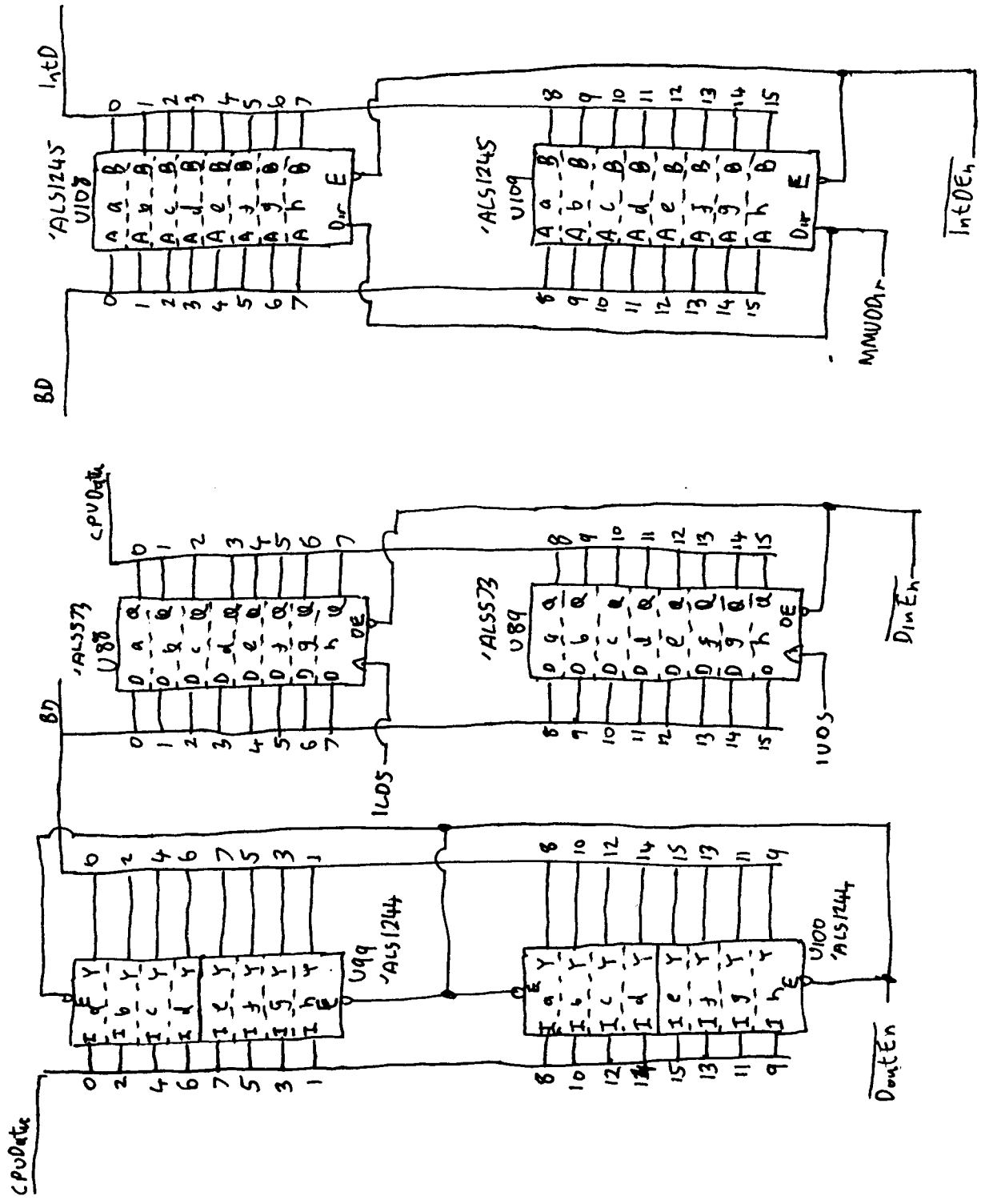




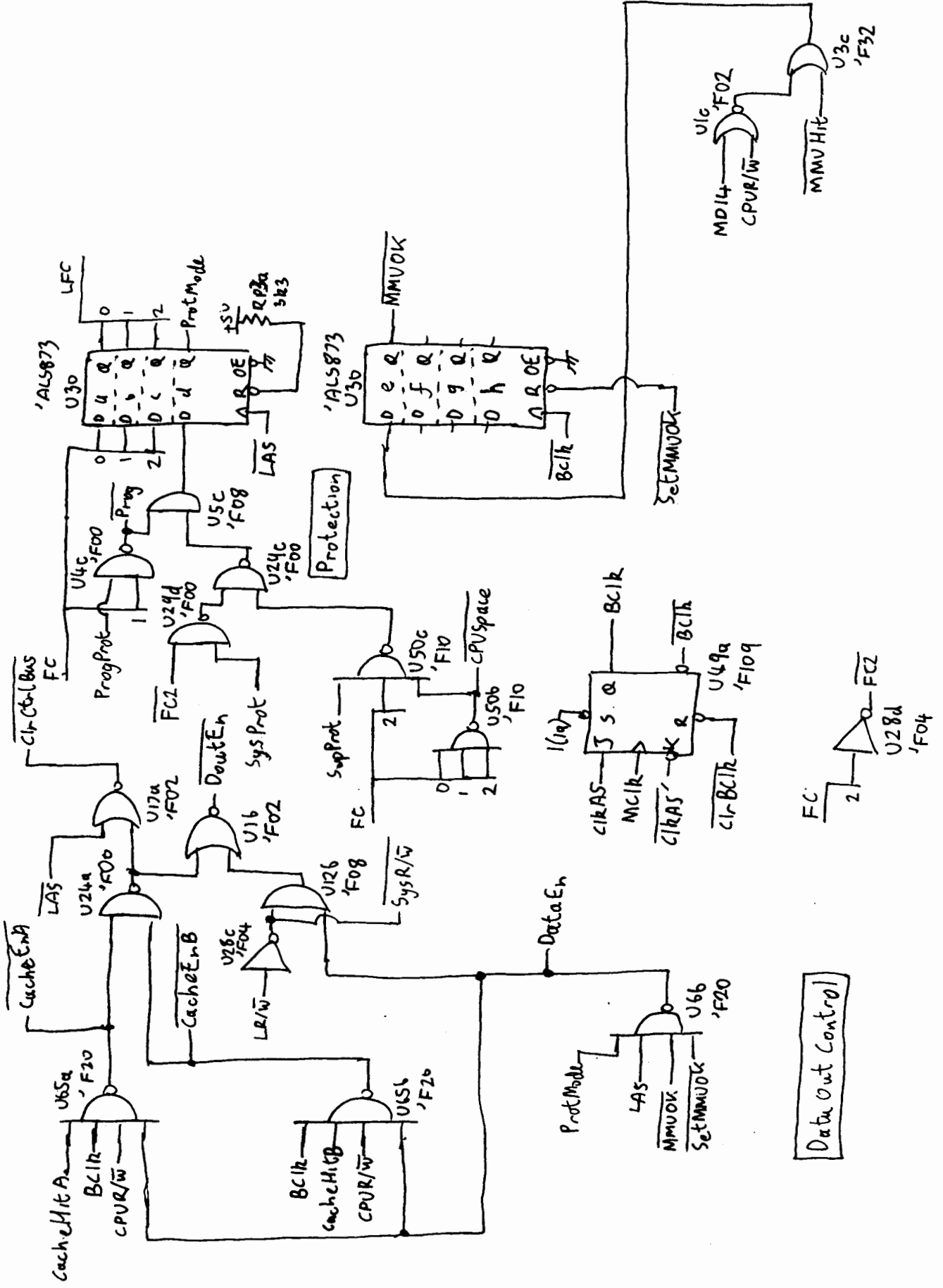


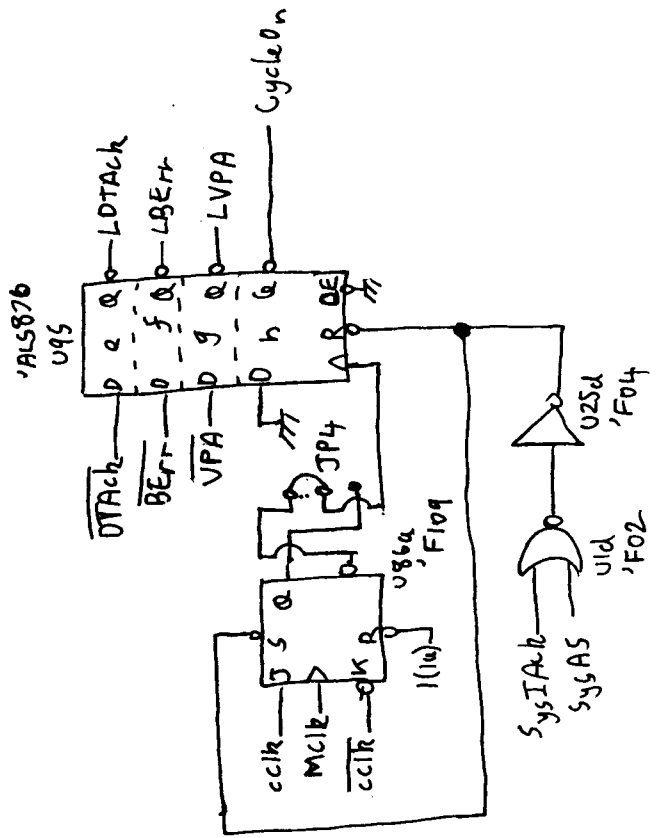
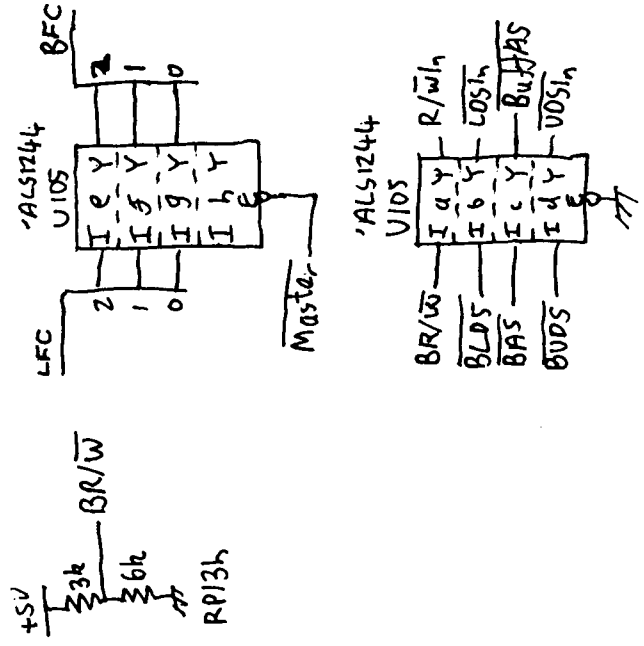
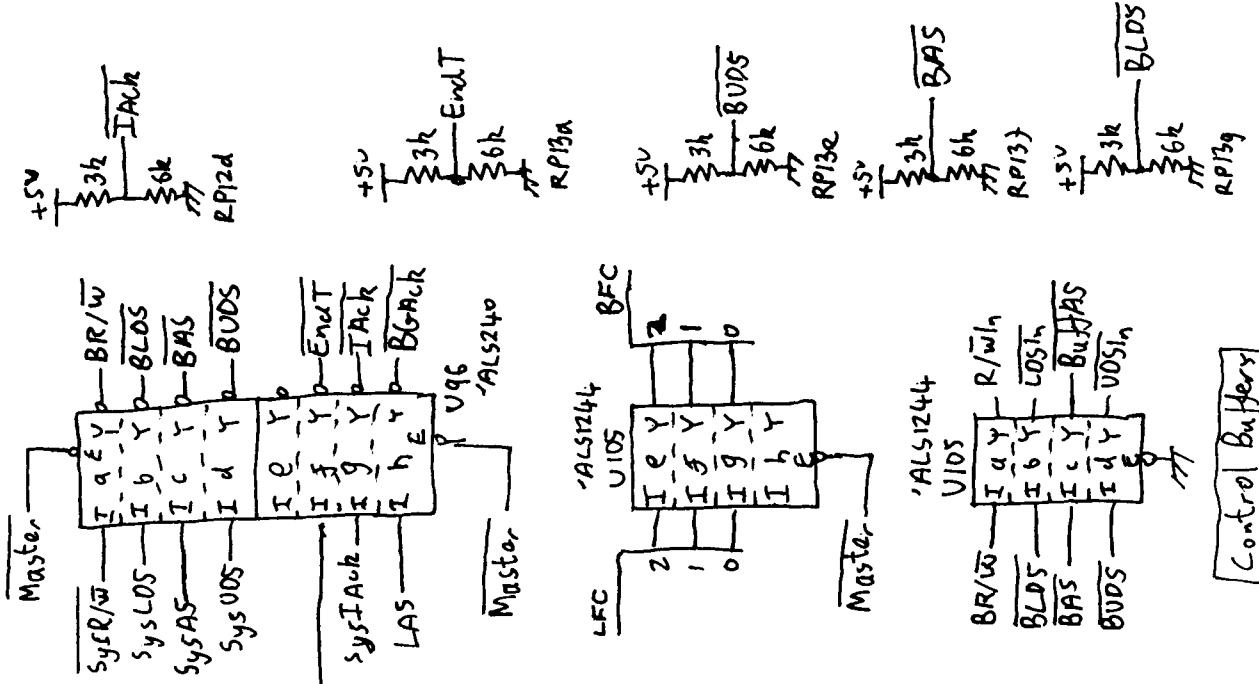
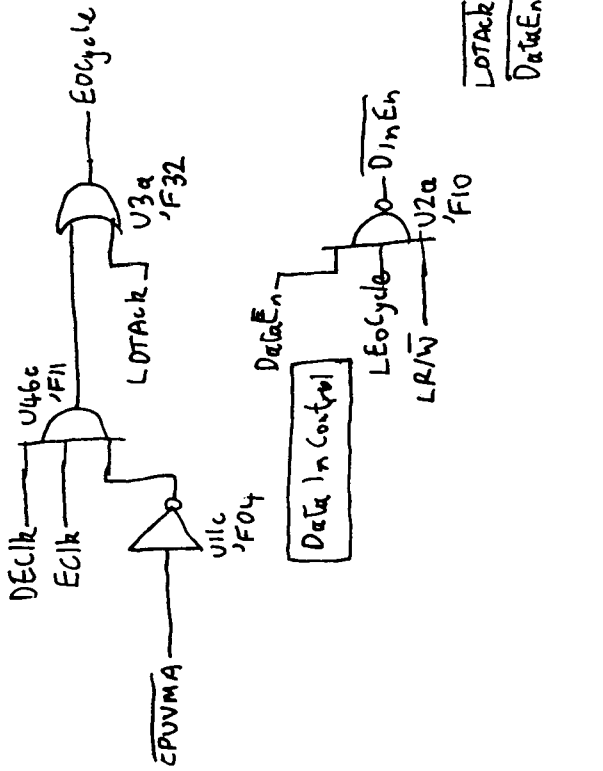
J1
(motherboard)



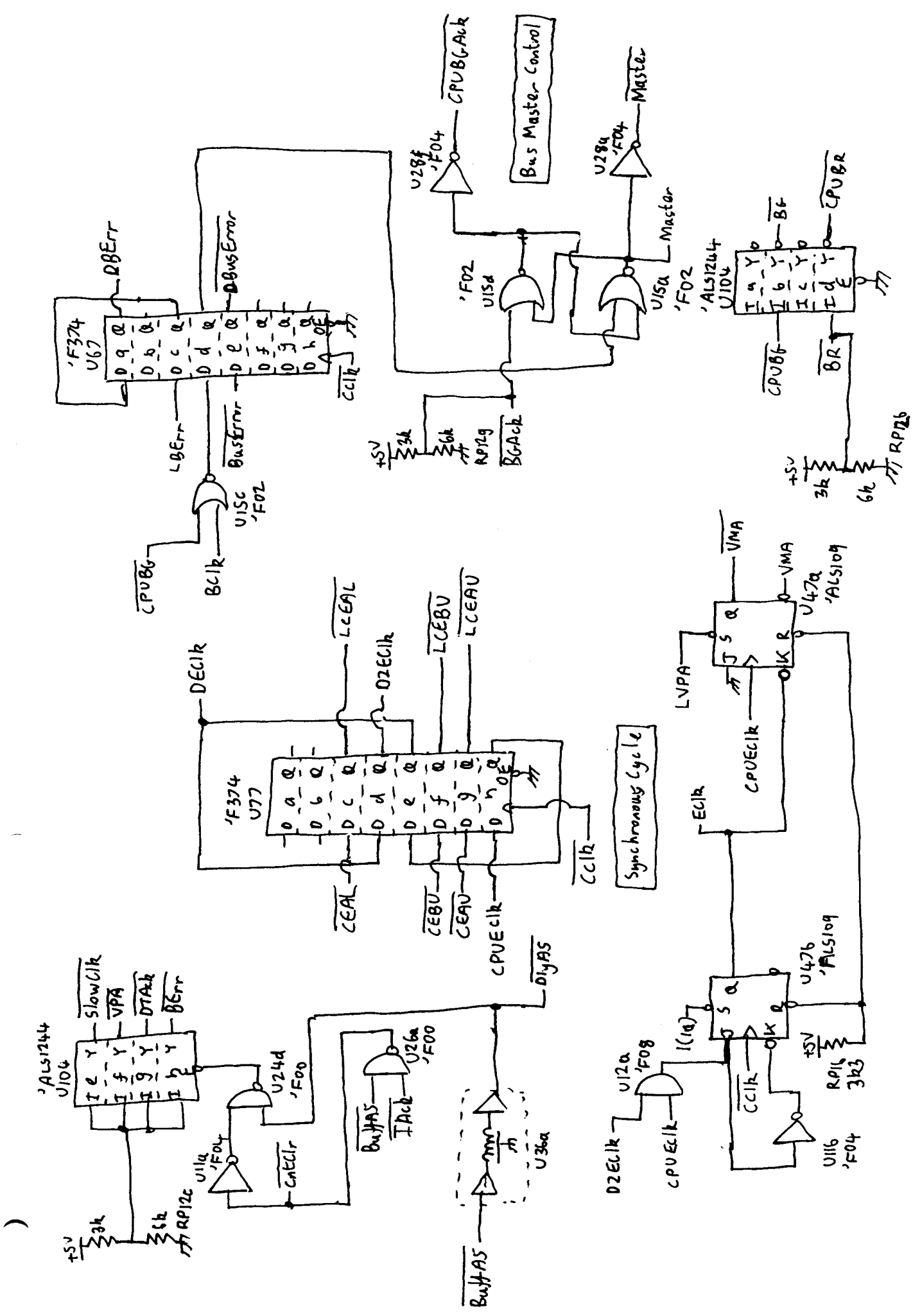


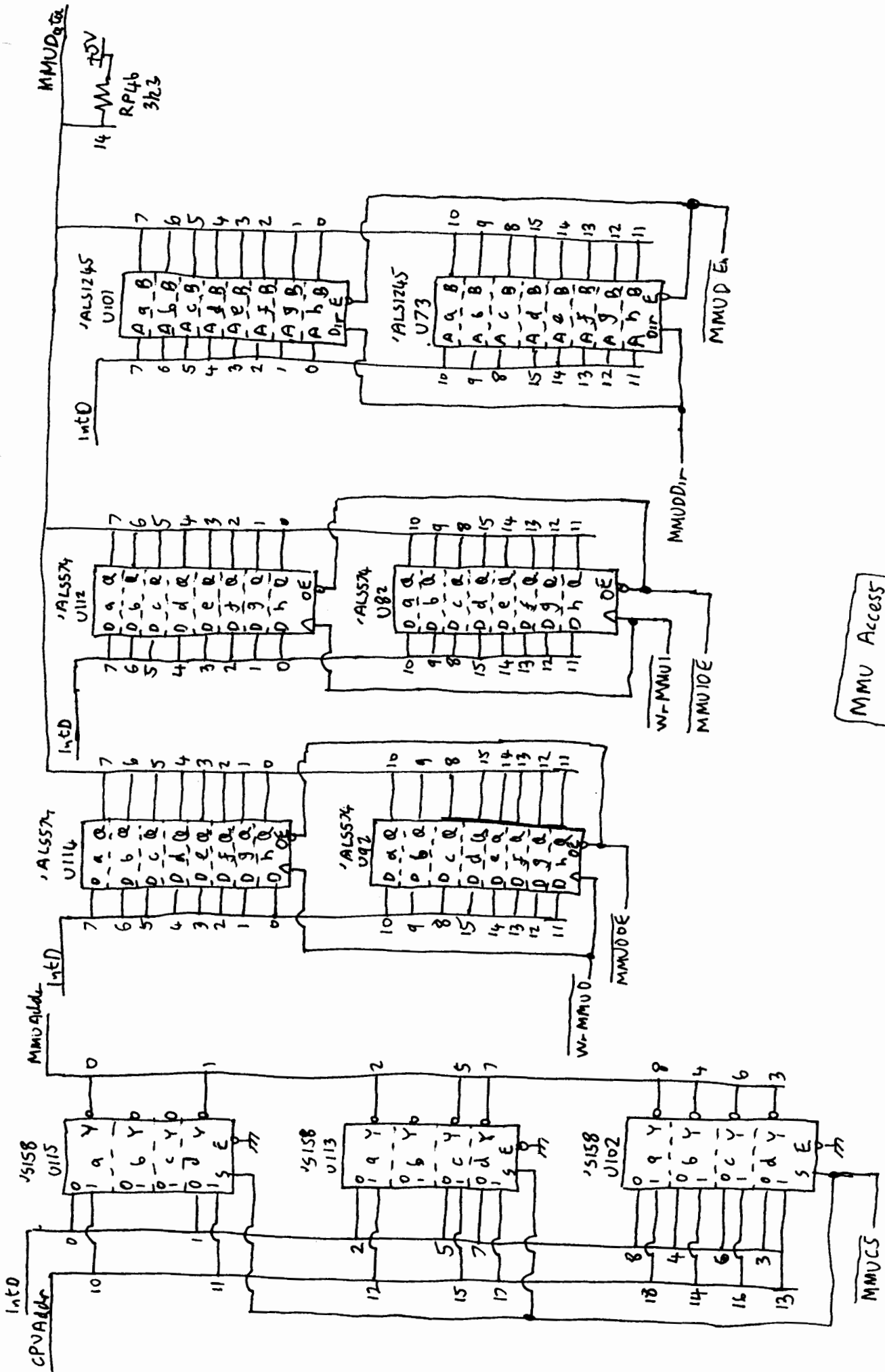
Data Buffers



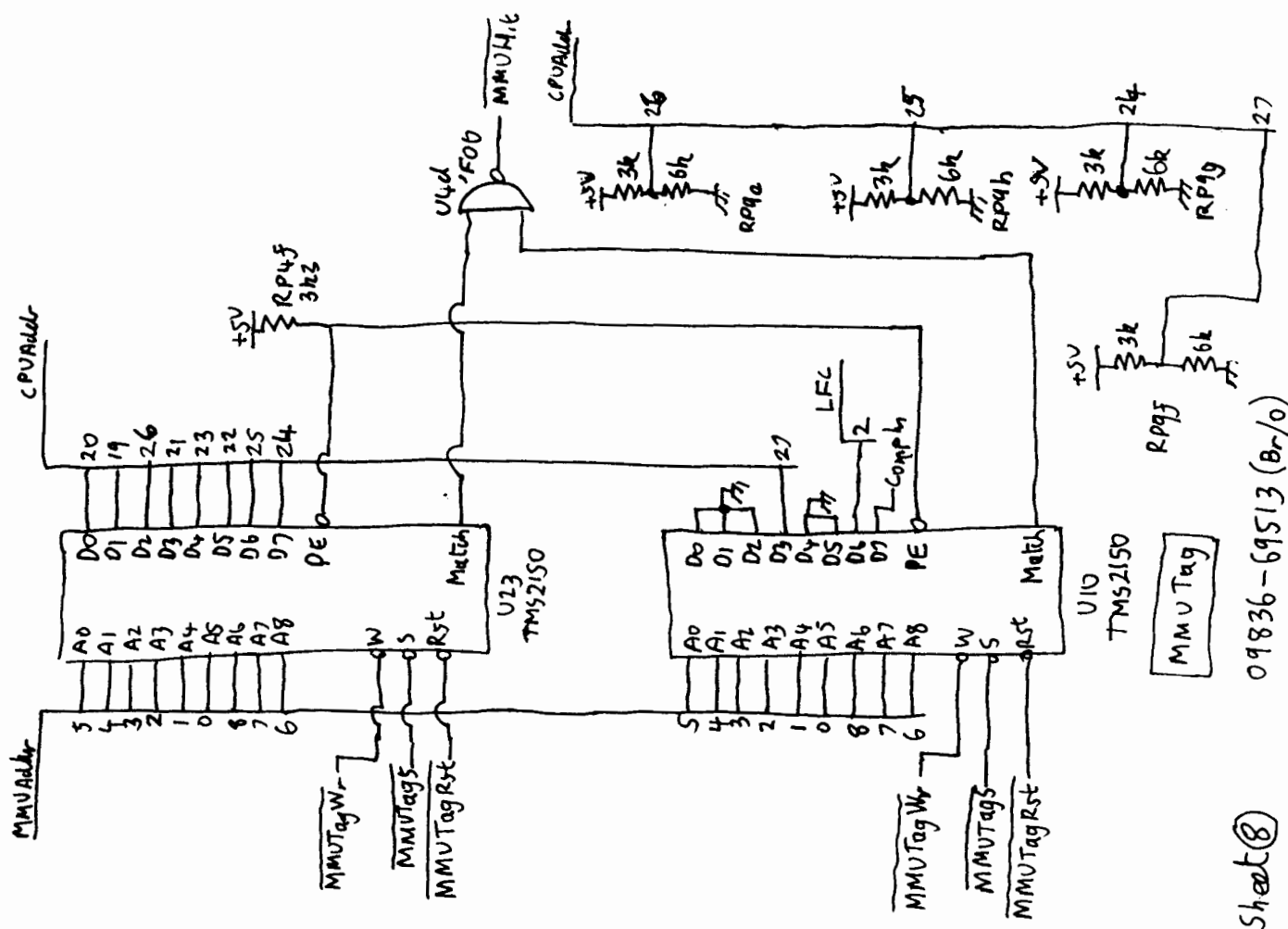
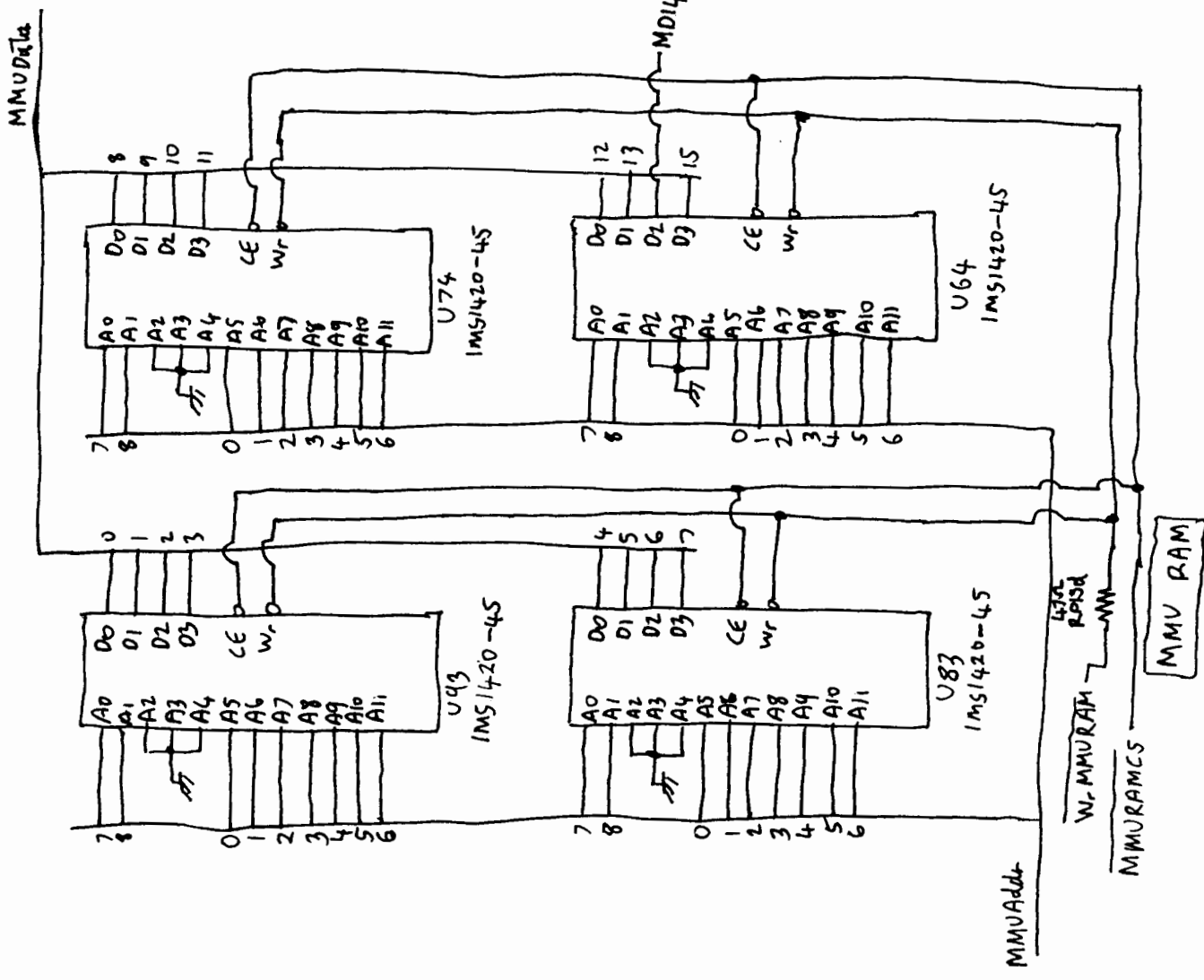


Control Buffers

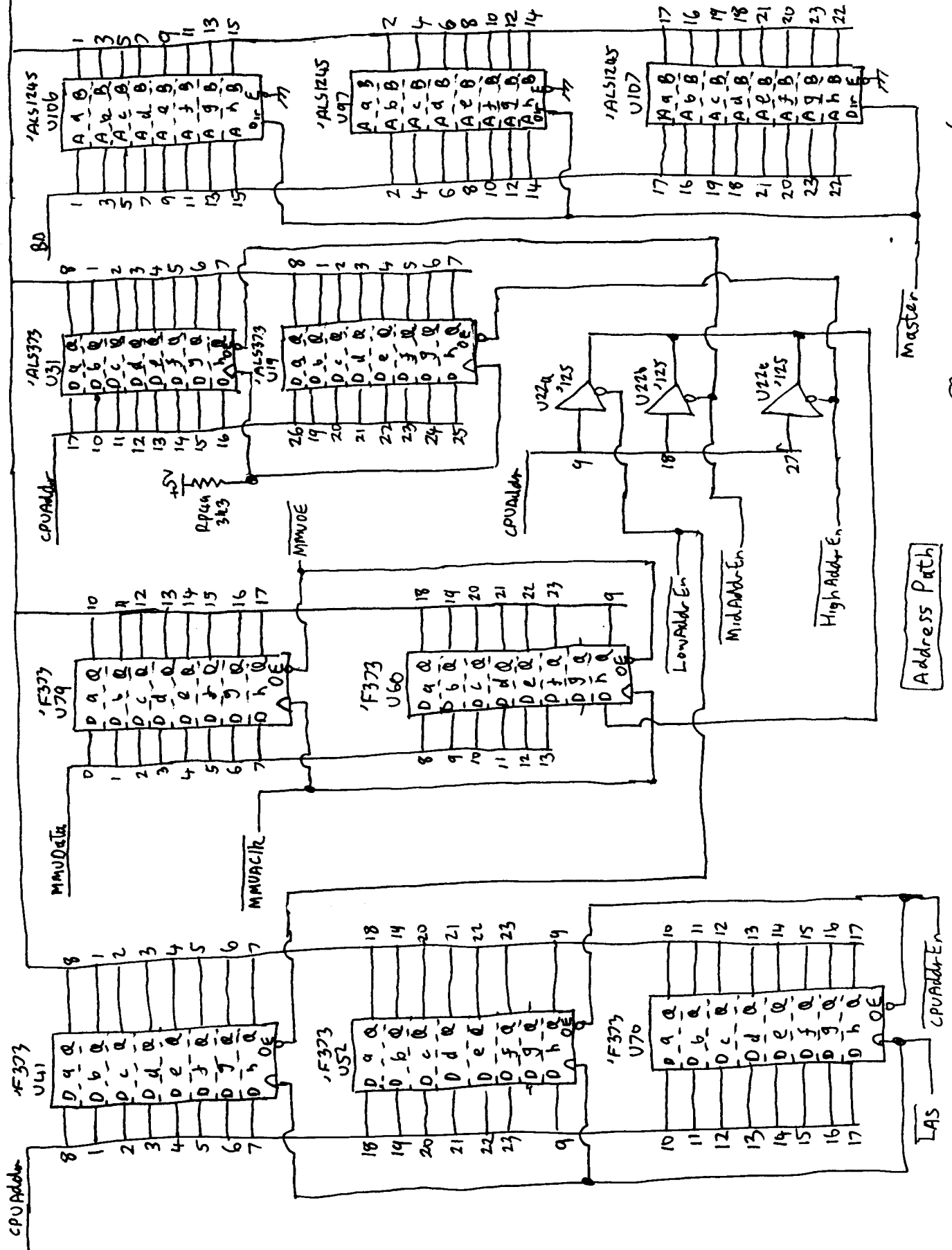




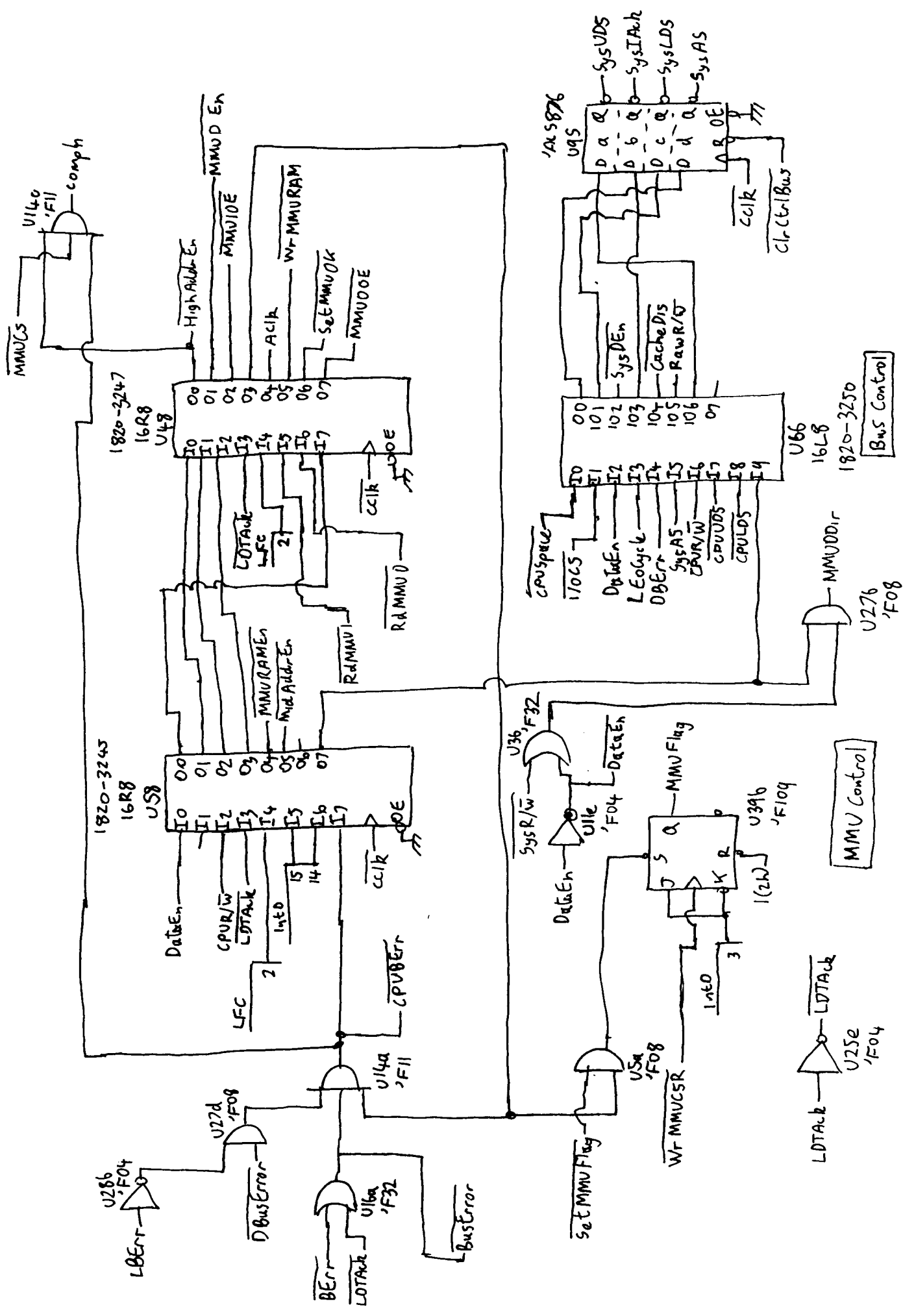
MMU Access

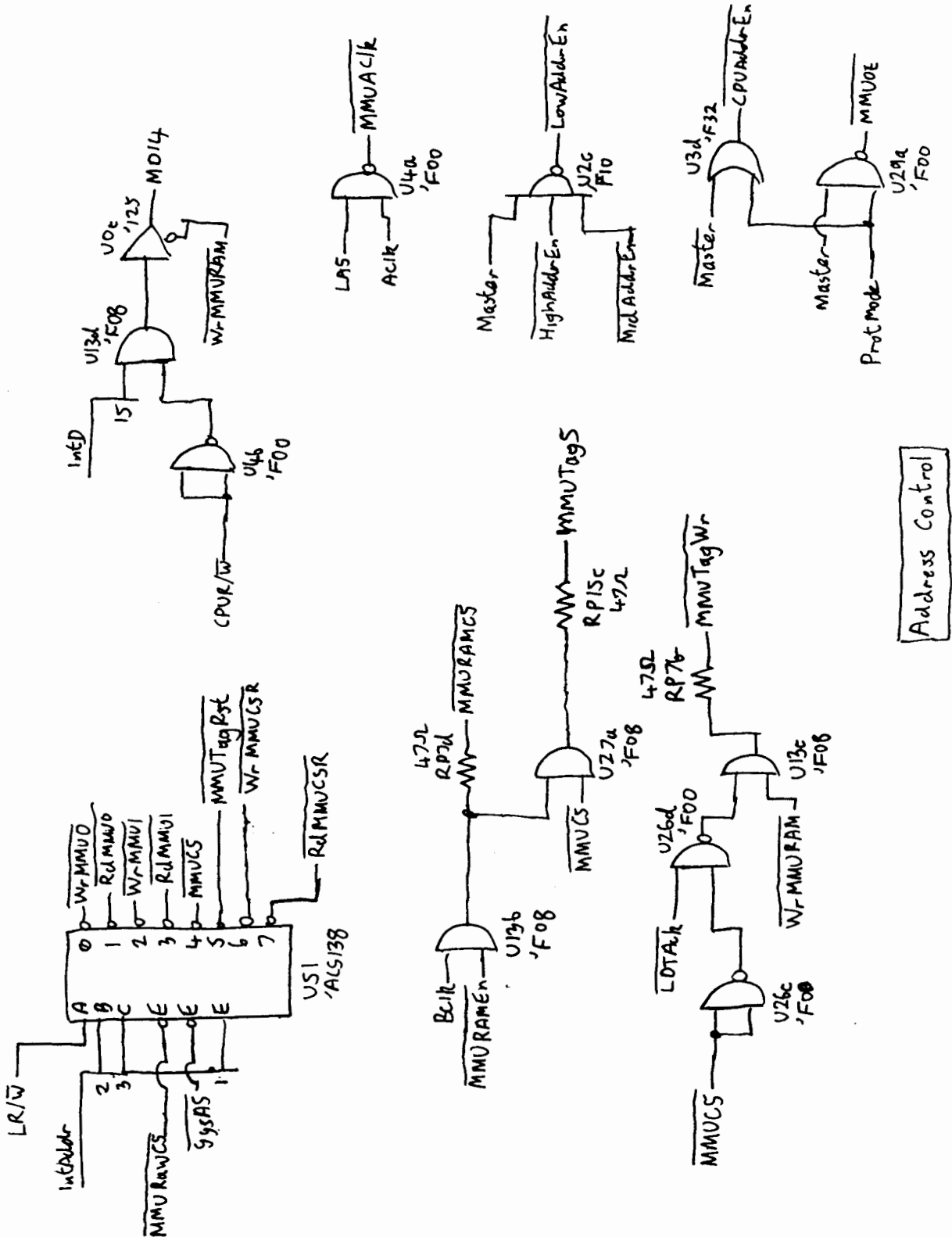


IntAddr

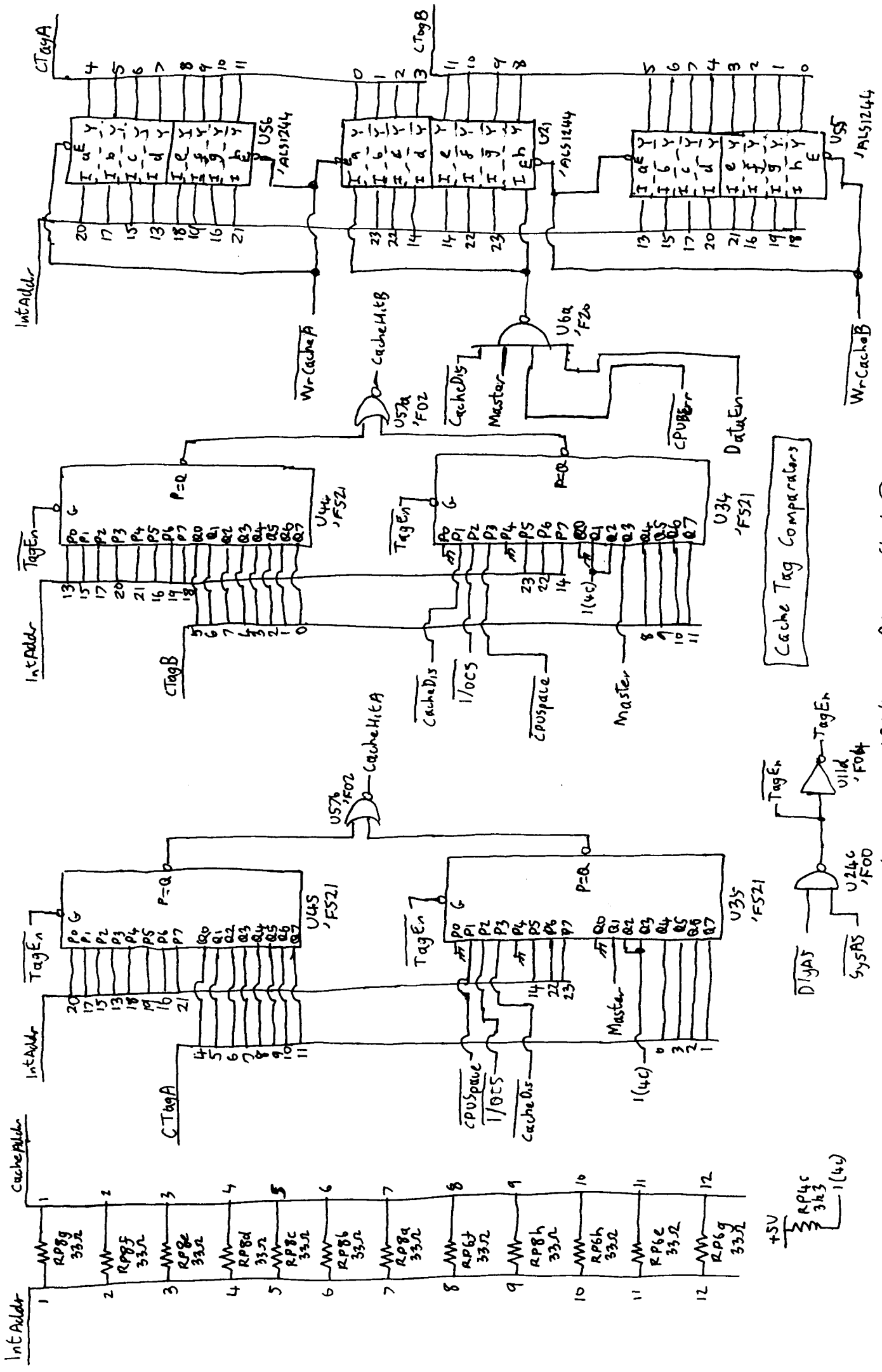


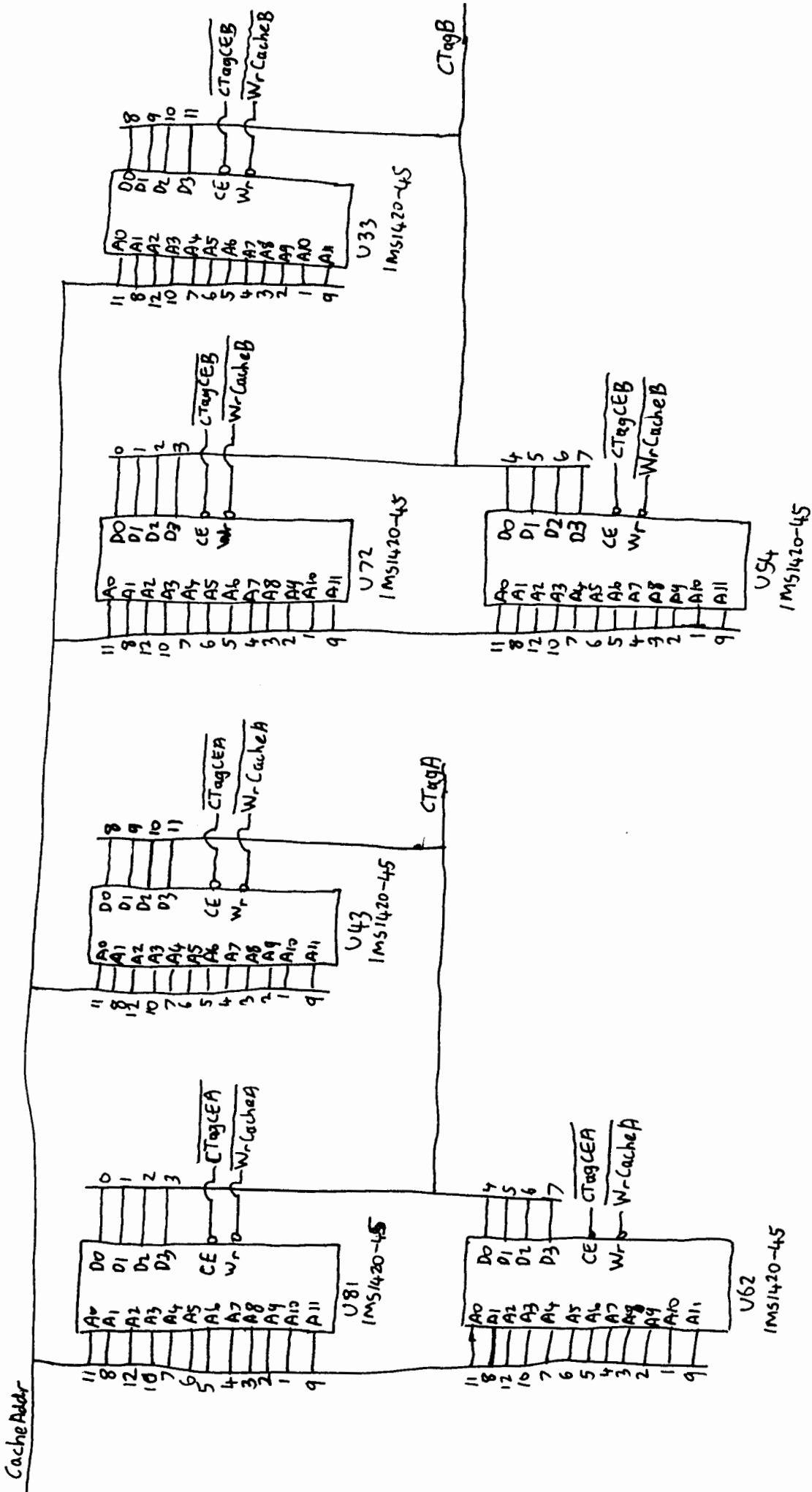
Address Path





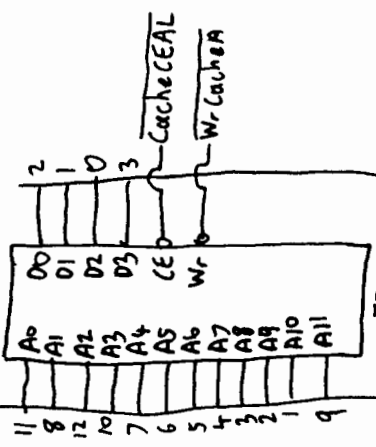
Address Control



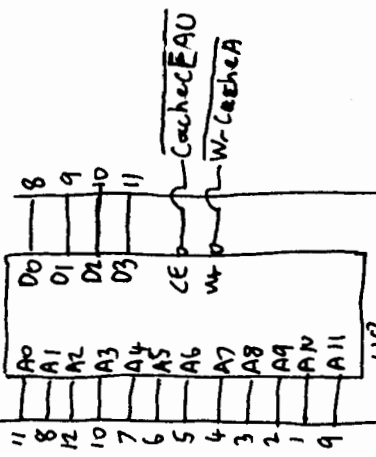


Cache Tag

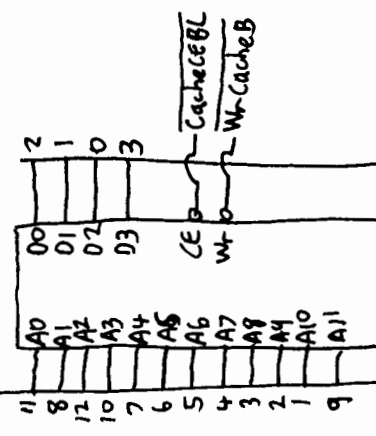
Cache Addr



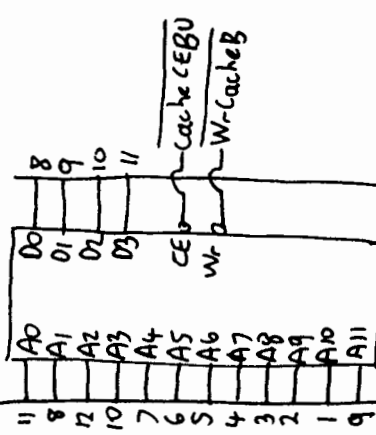
U53
1MS1420-55



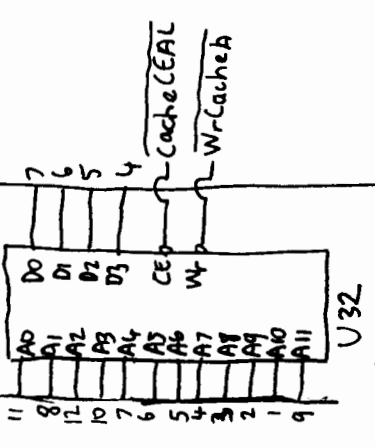
U8
1MS1420-55



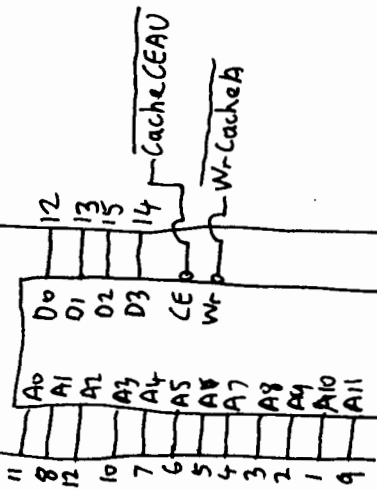
U61
1MS1420-55



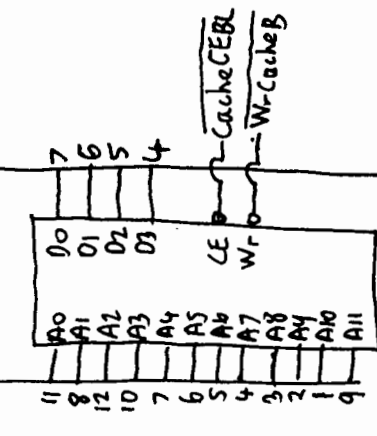
U70
1MS1420-55



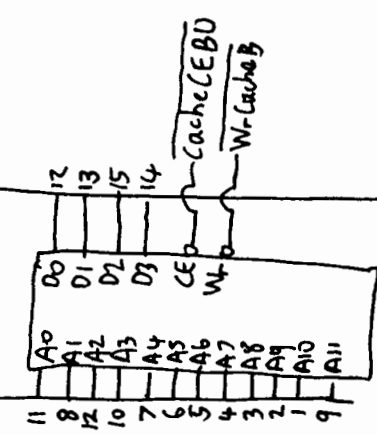
U32
1MS1420-55



U71
1MS1420-55



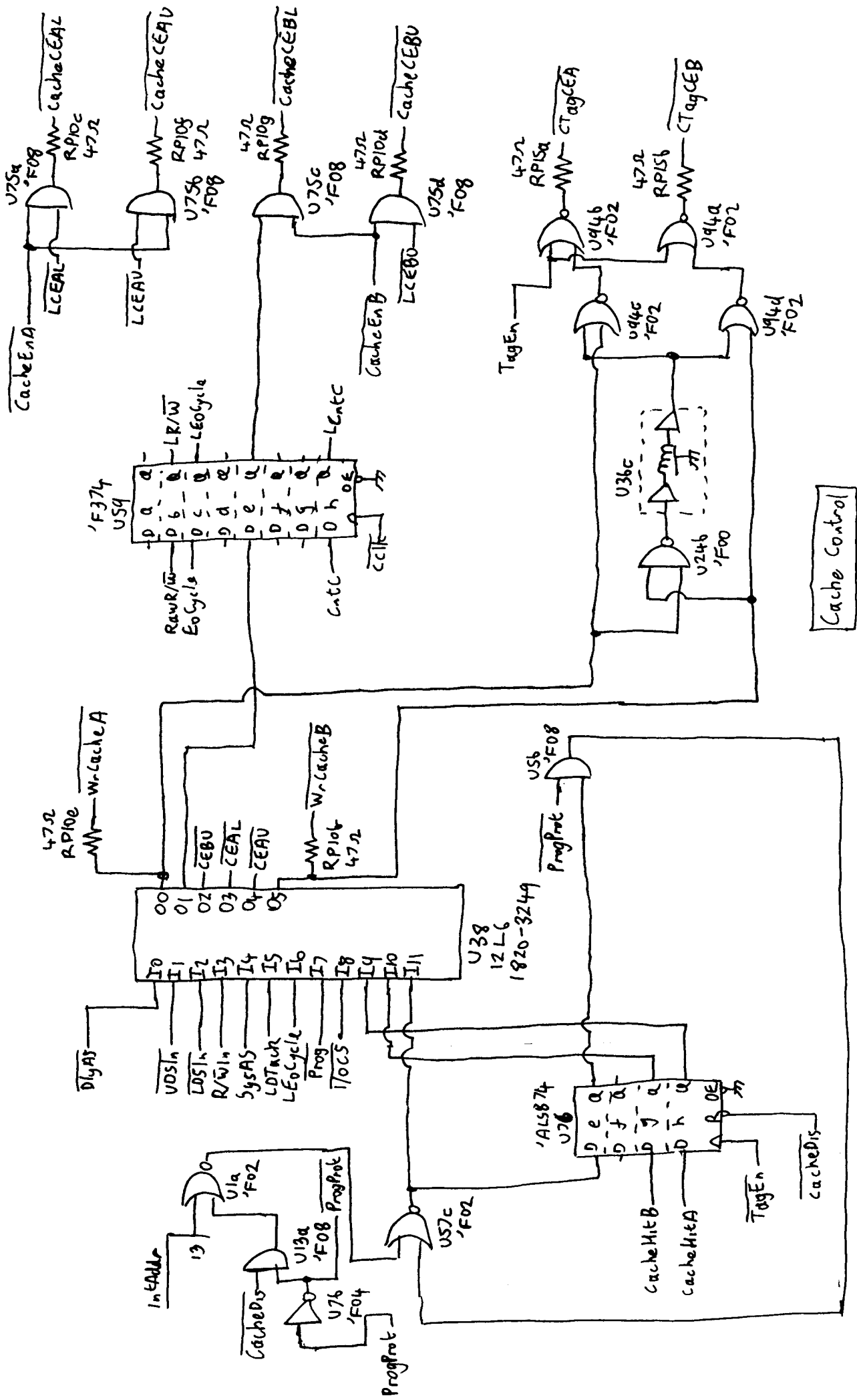
U42
1MS1420-55

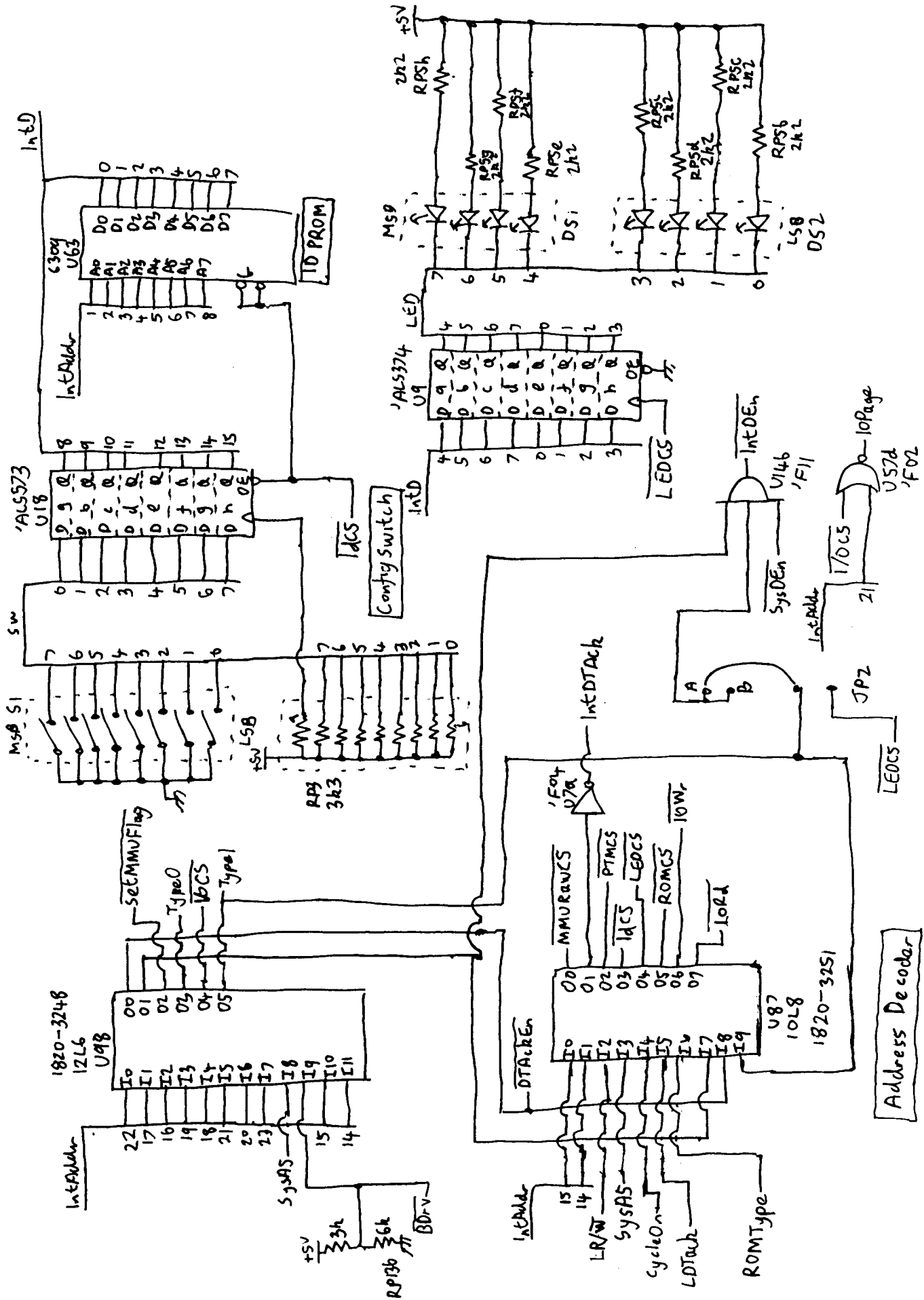


U80
1MS1420-55

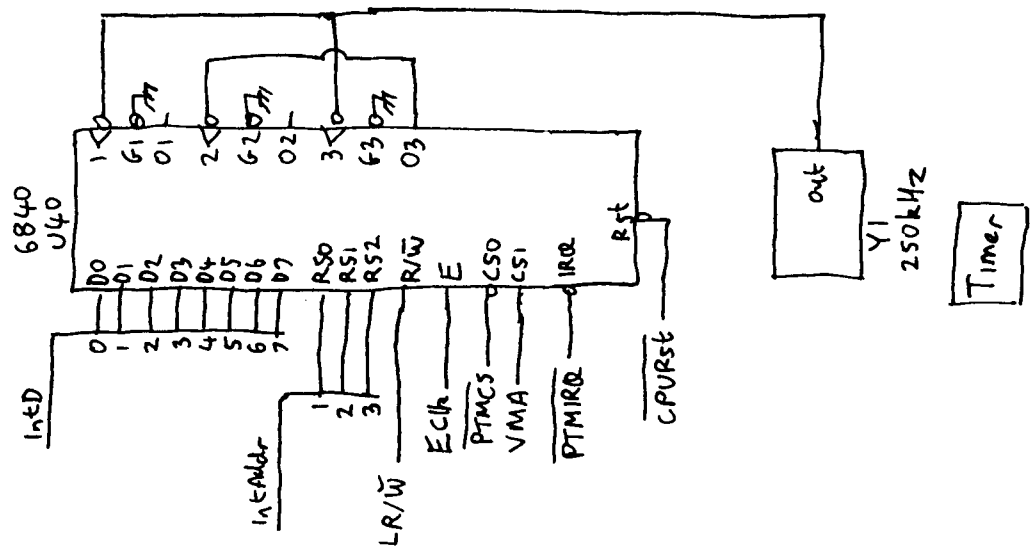
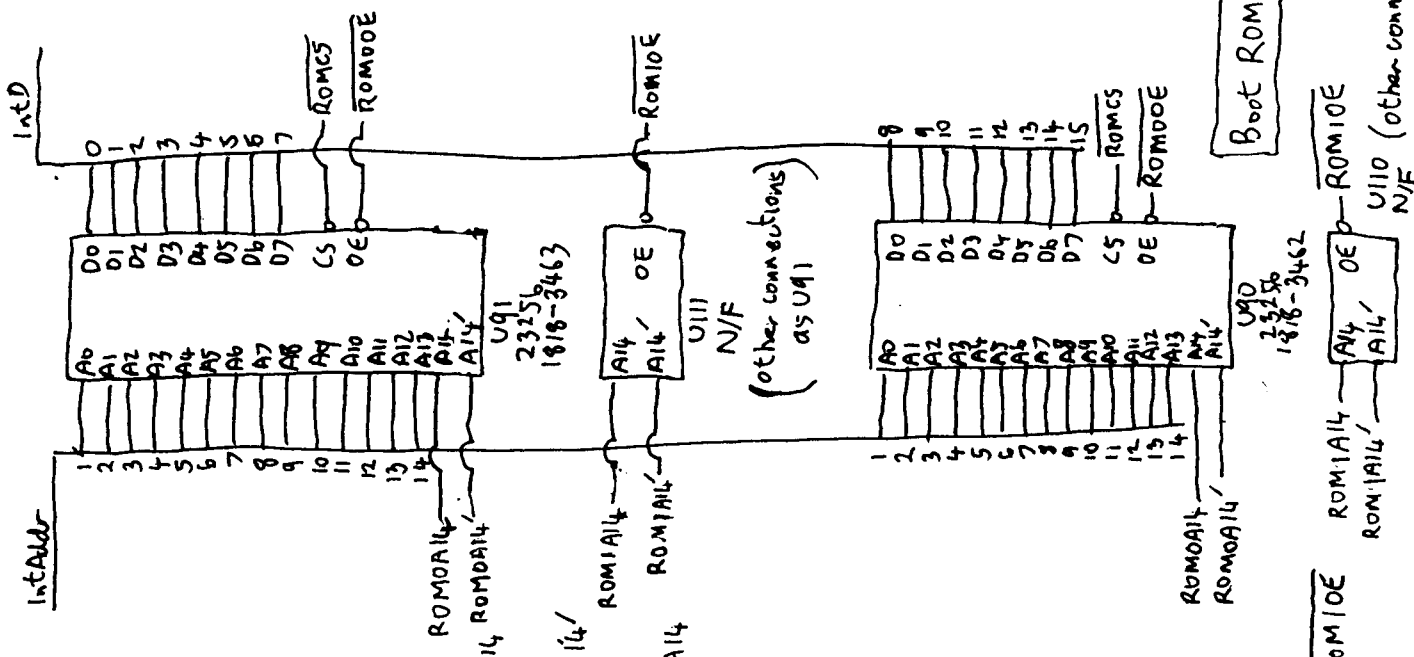
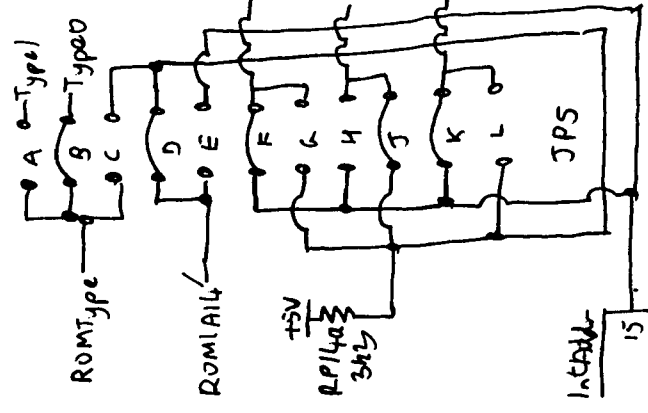
CPUData

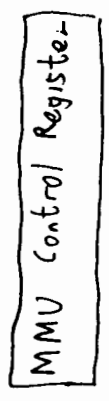
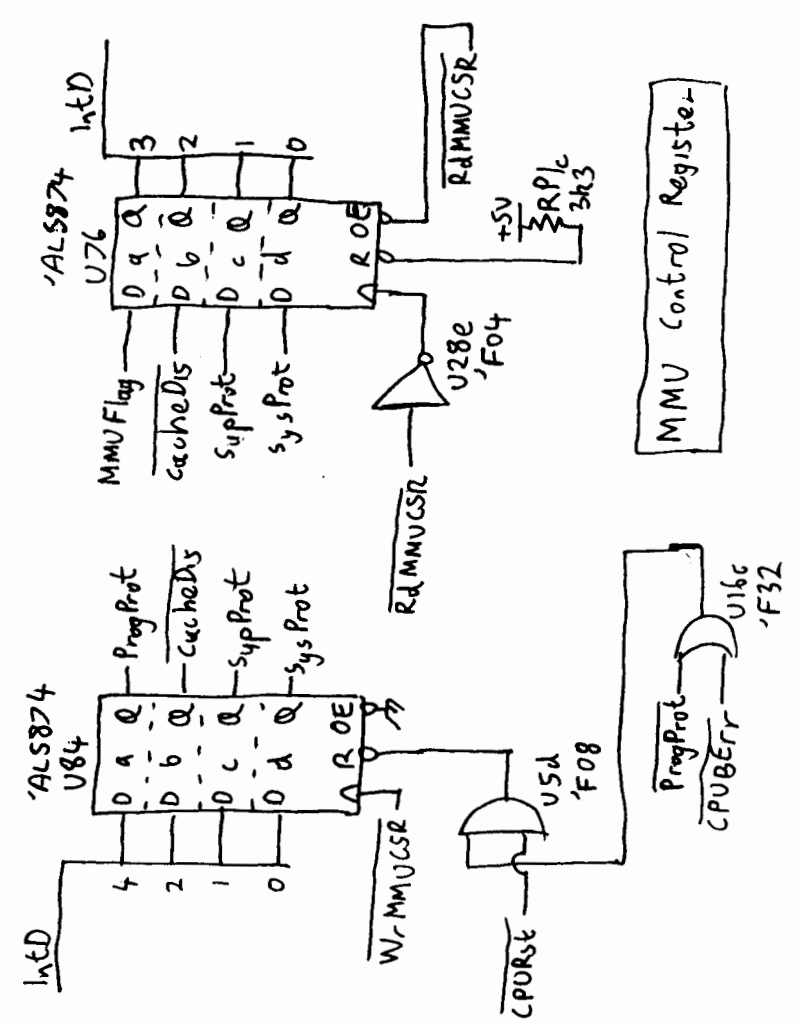
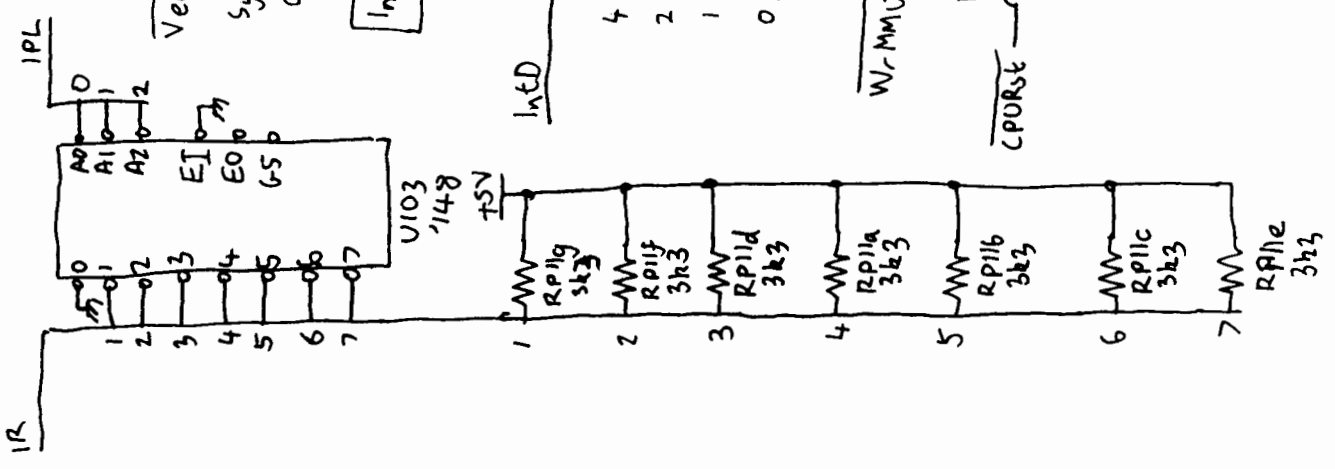
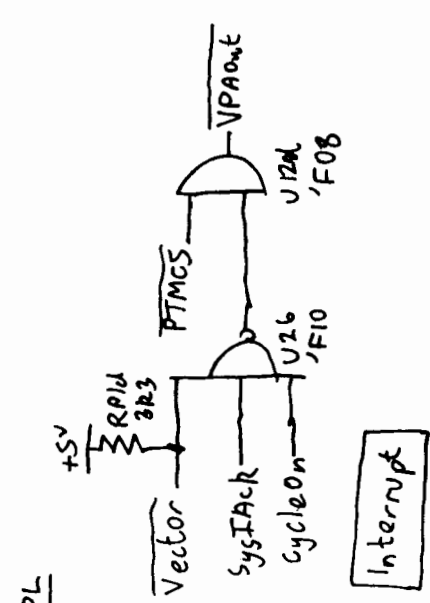
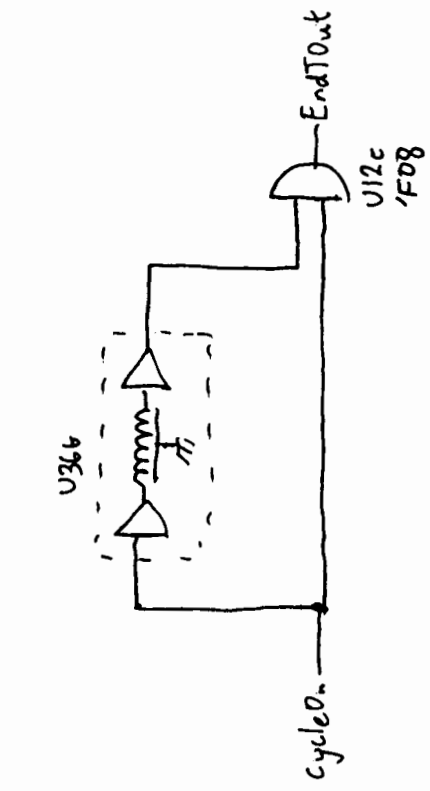
Cache RAM

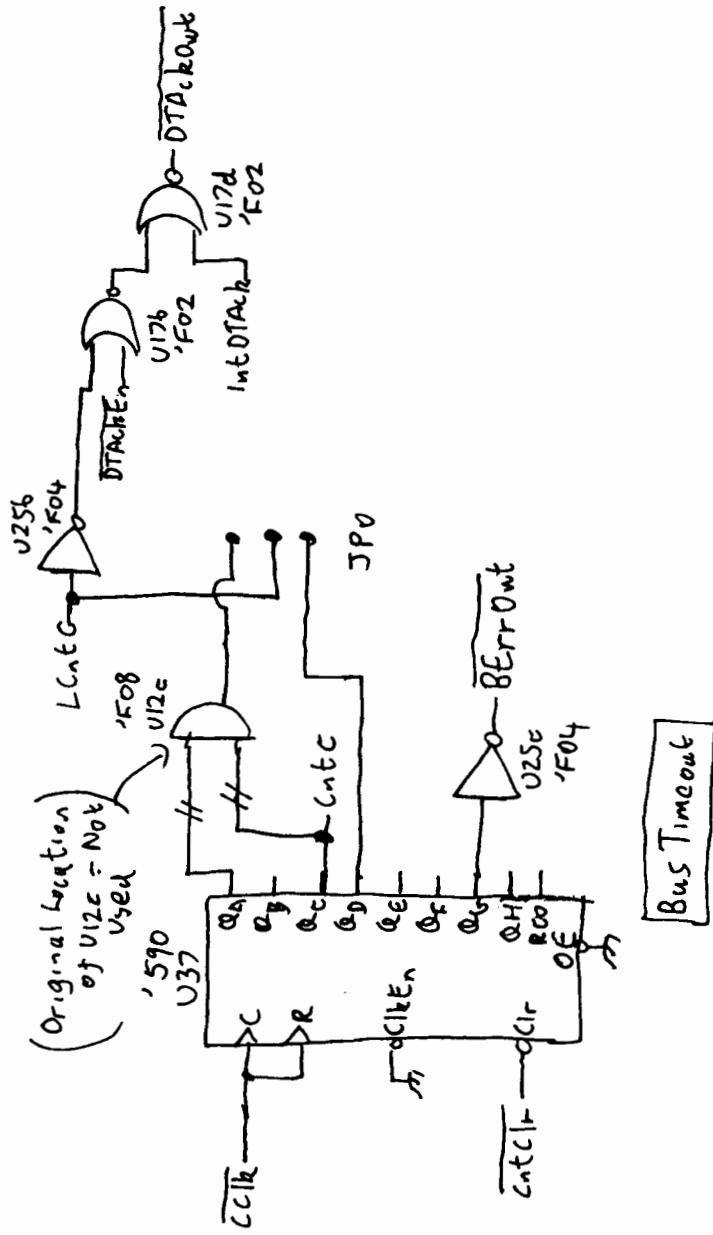


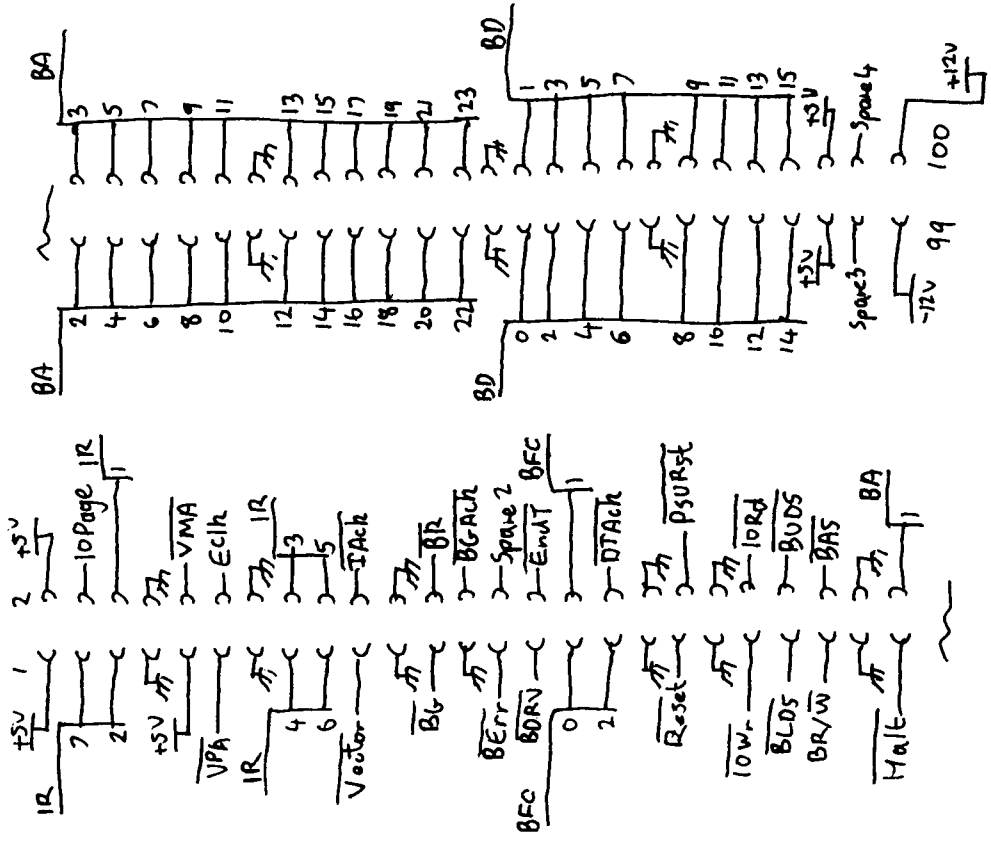


ROM Type Jumpers

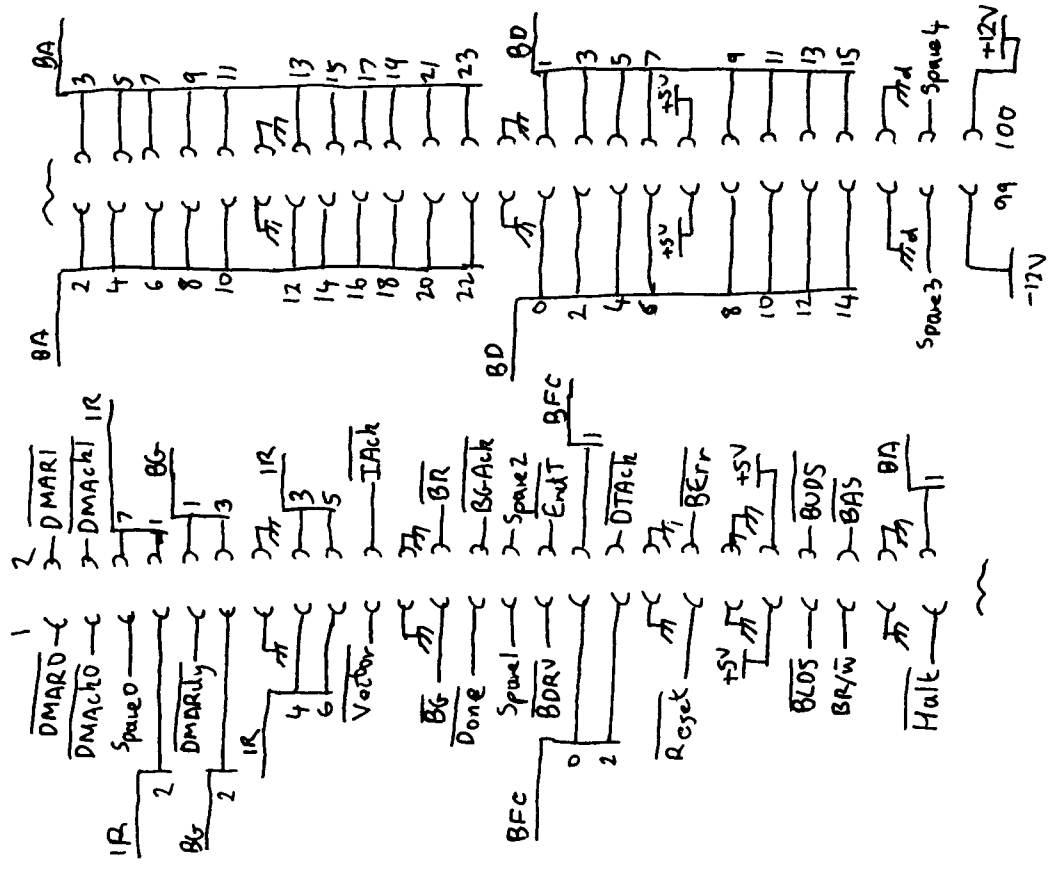




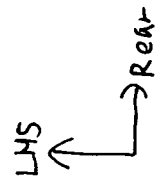
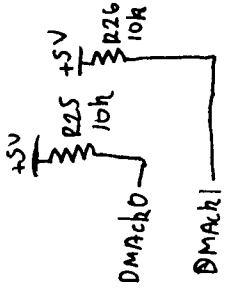


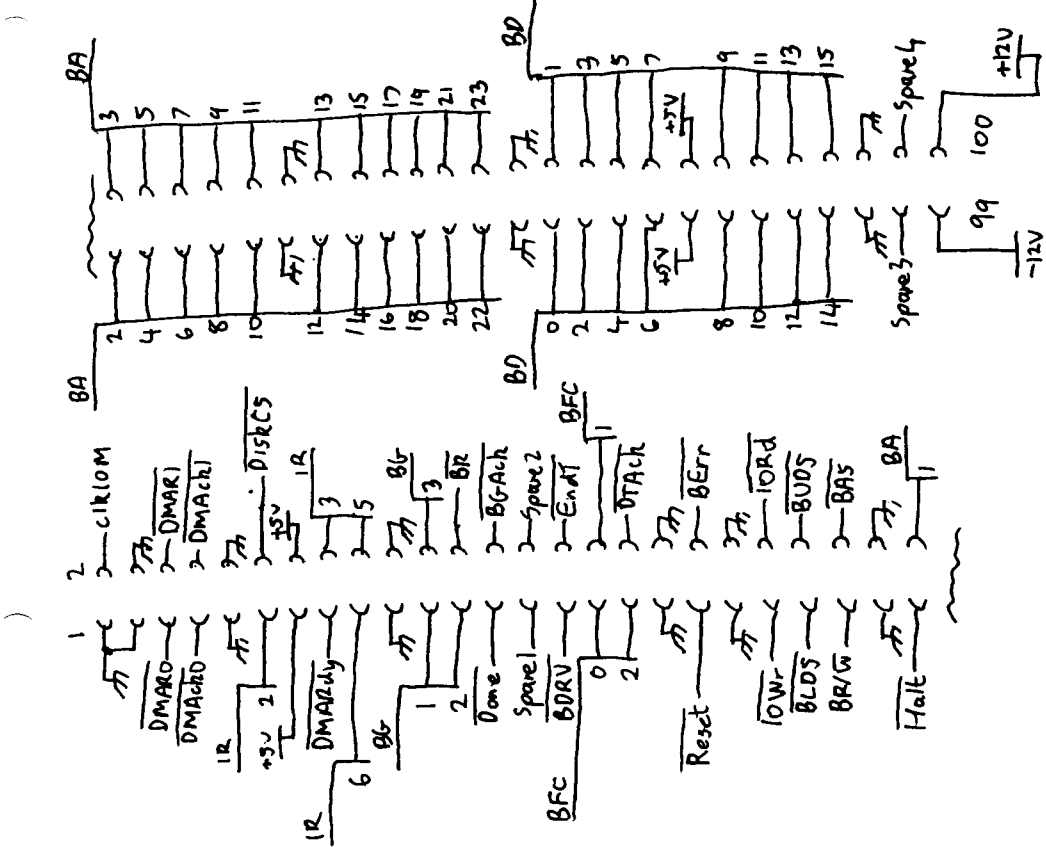


J3
(CPU)

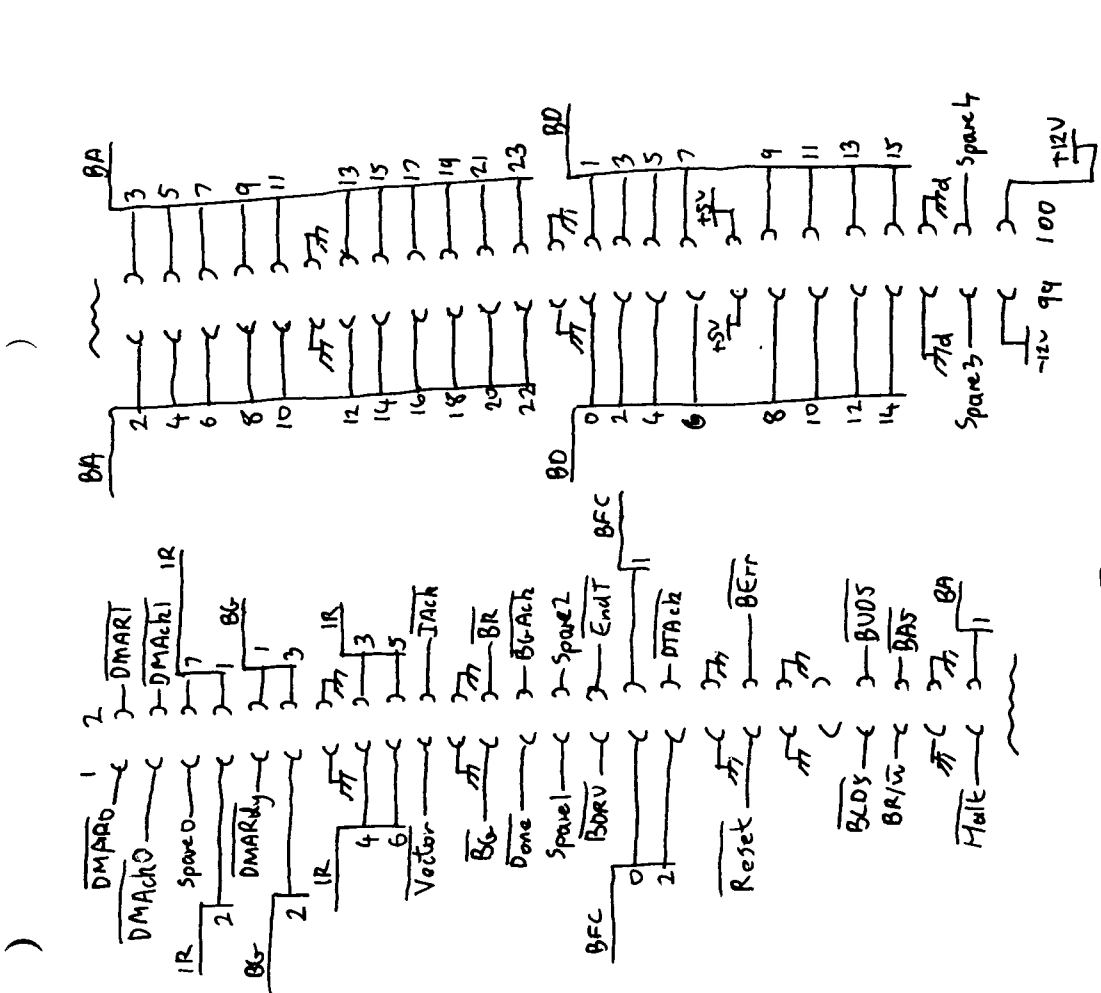


J2
(Backplane)

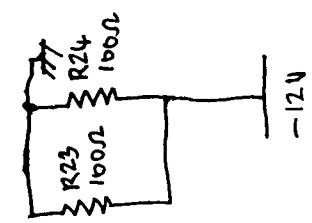
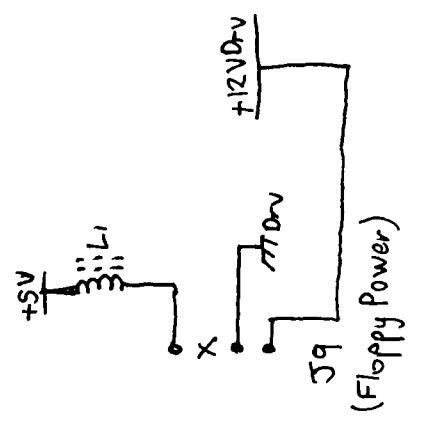
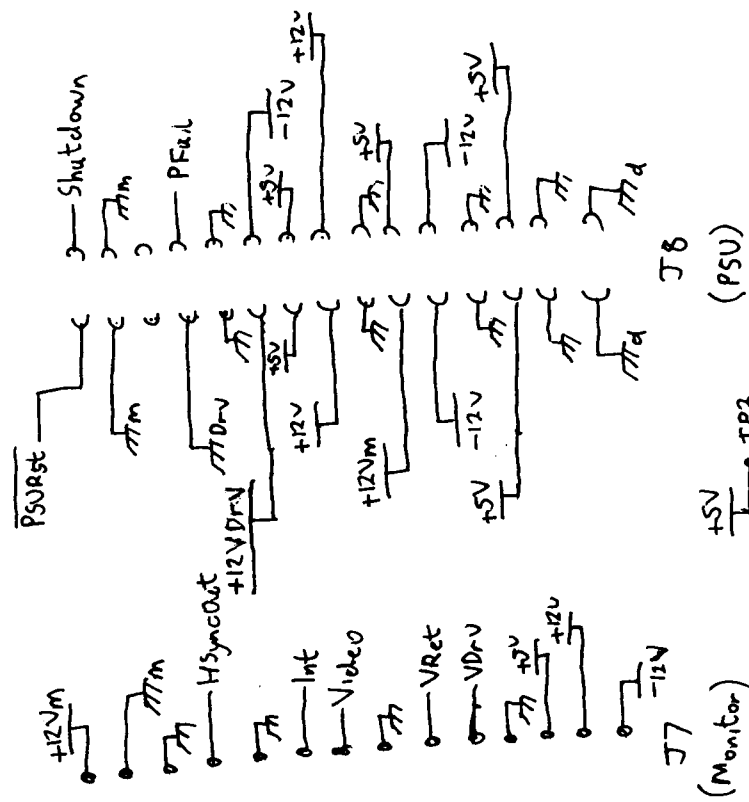
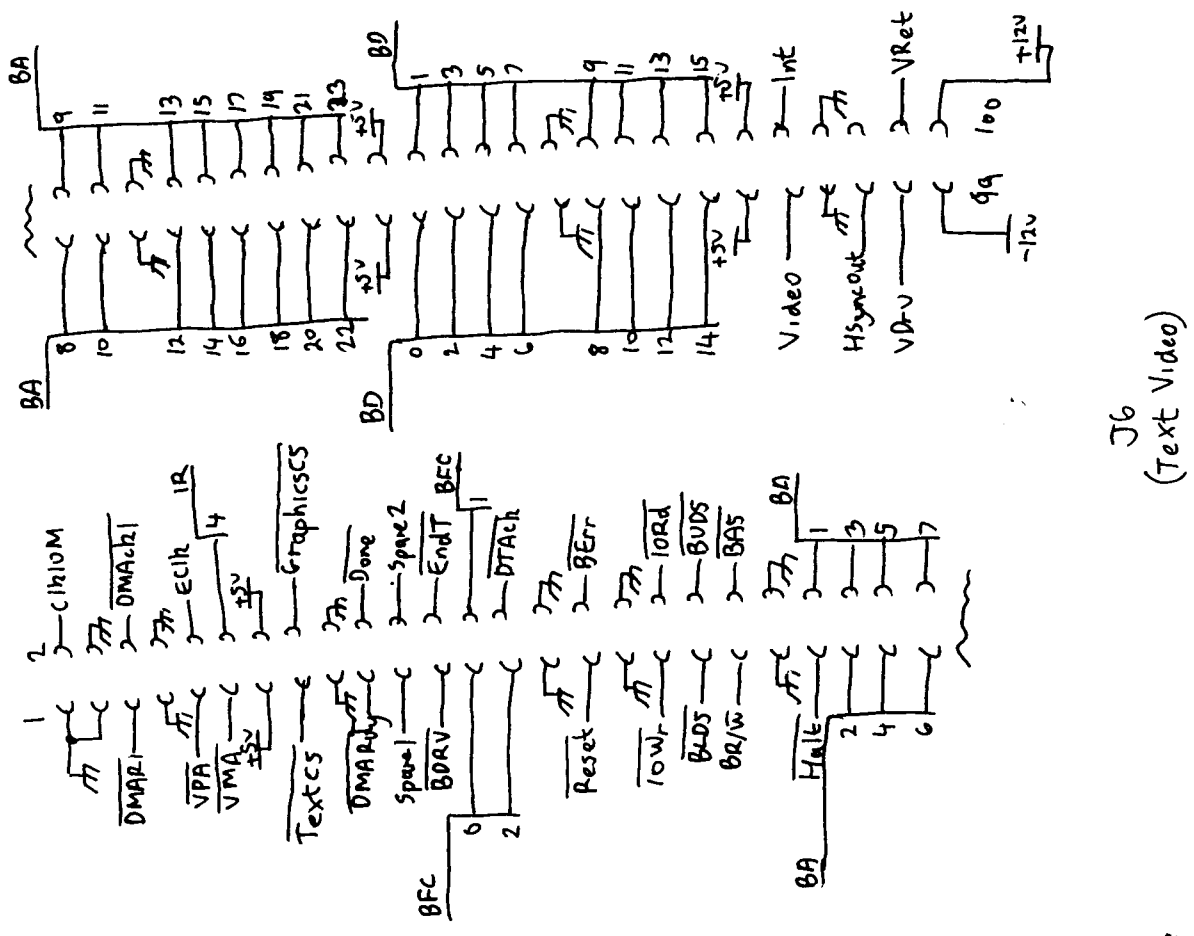




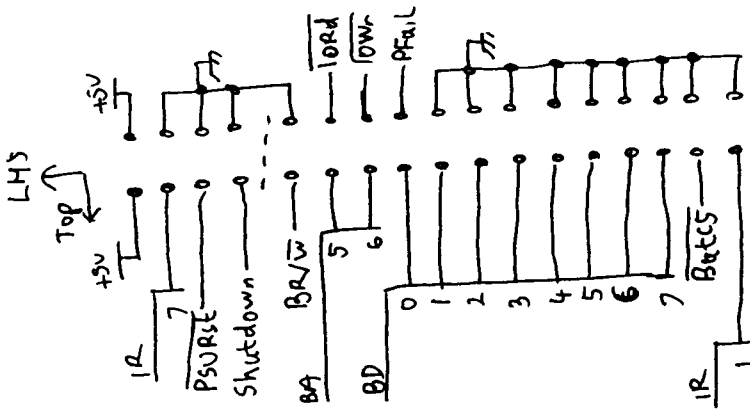
JS
(Floppy Controller)



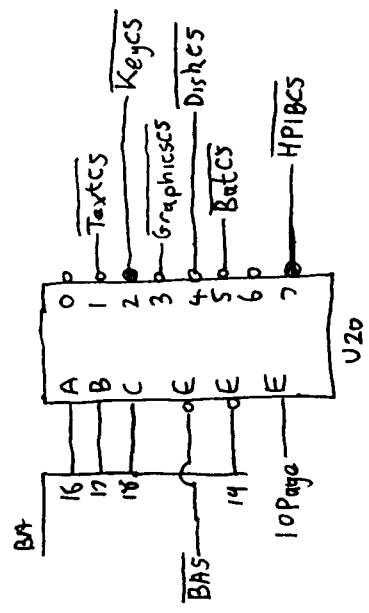
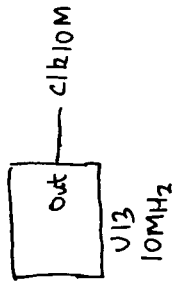
J4
(Spare)



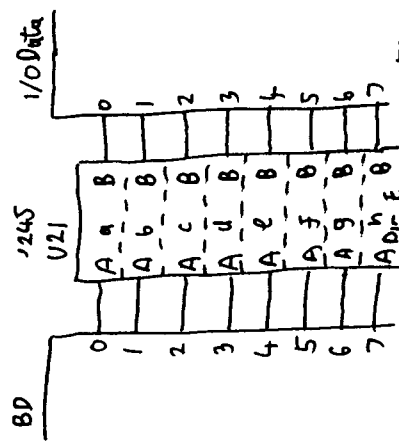
LMS → Rear



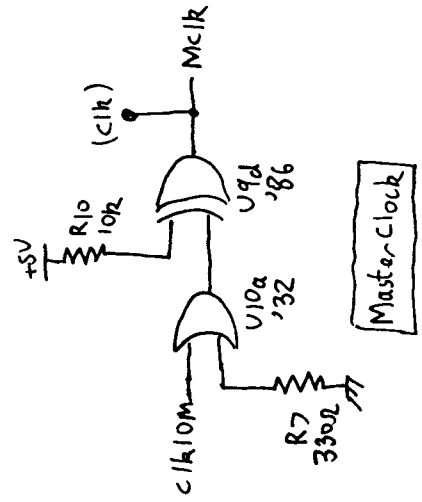
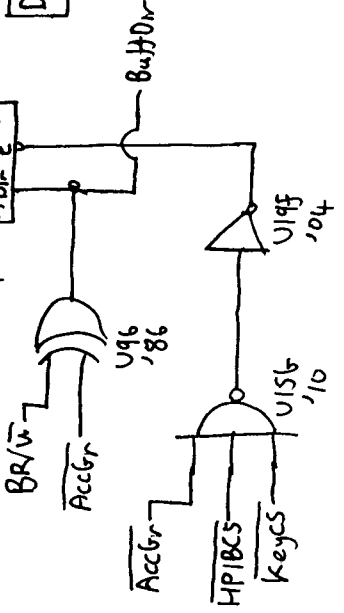
J10
(Battery Backup)

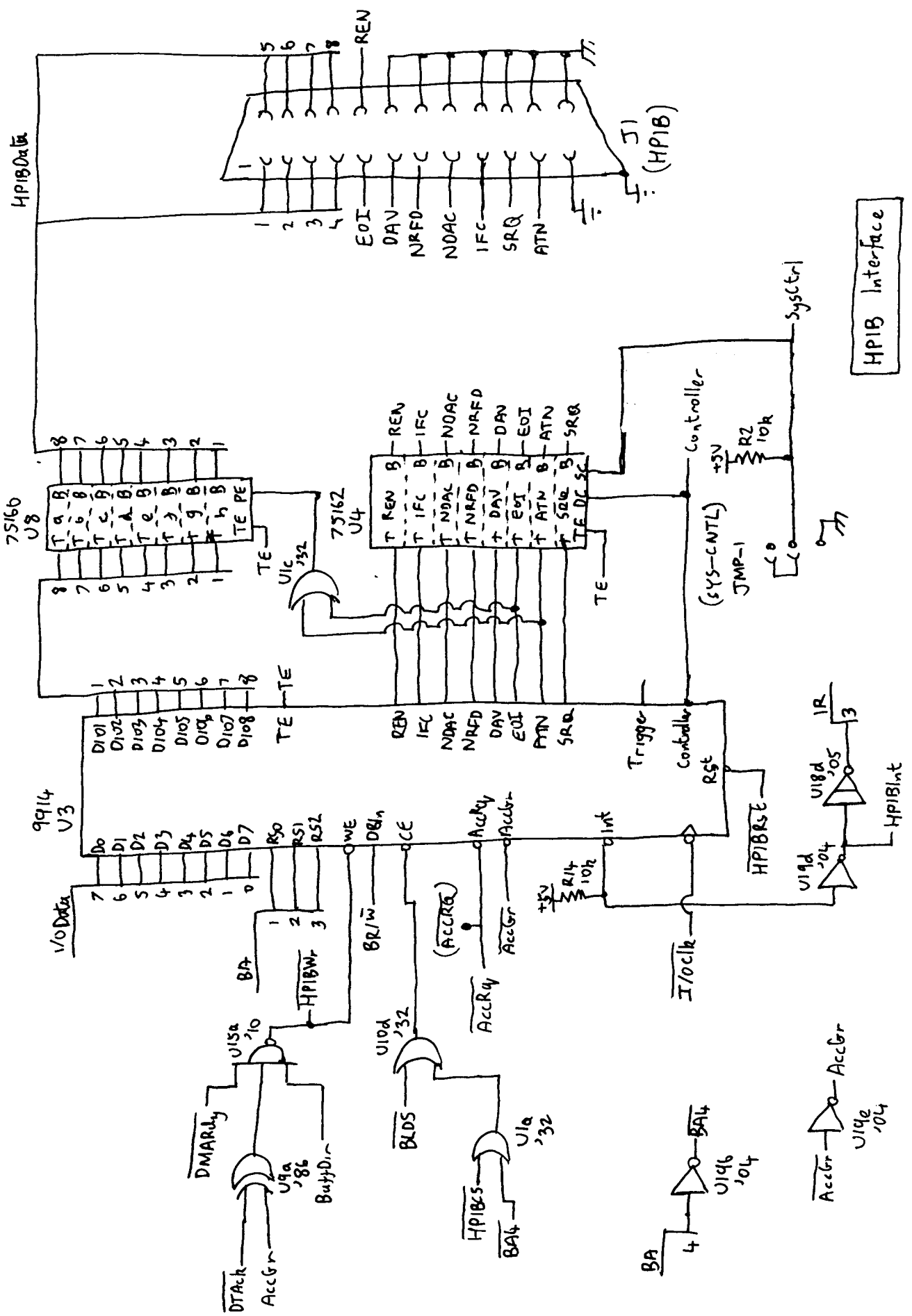


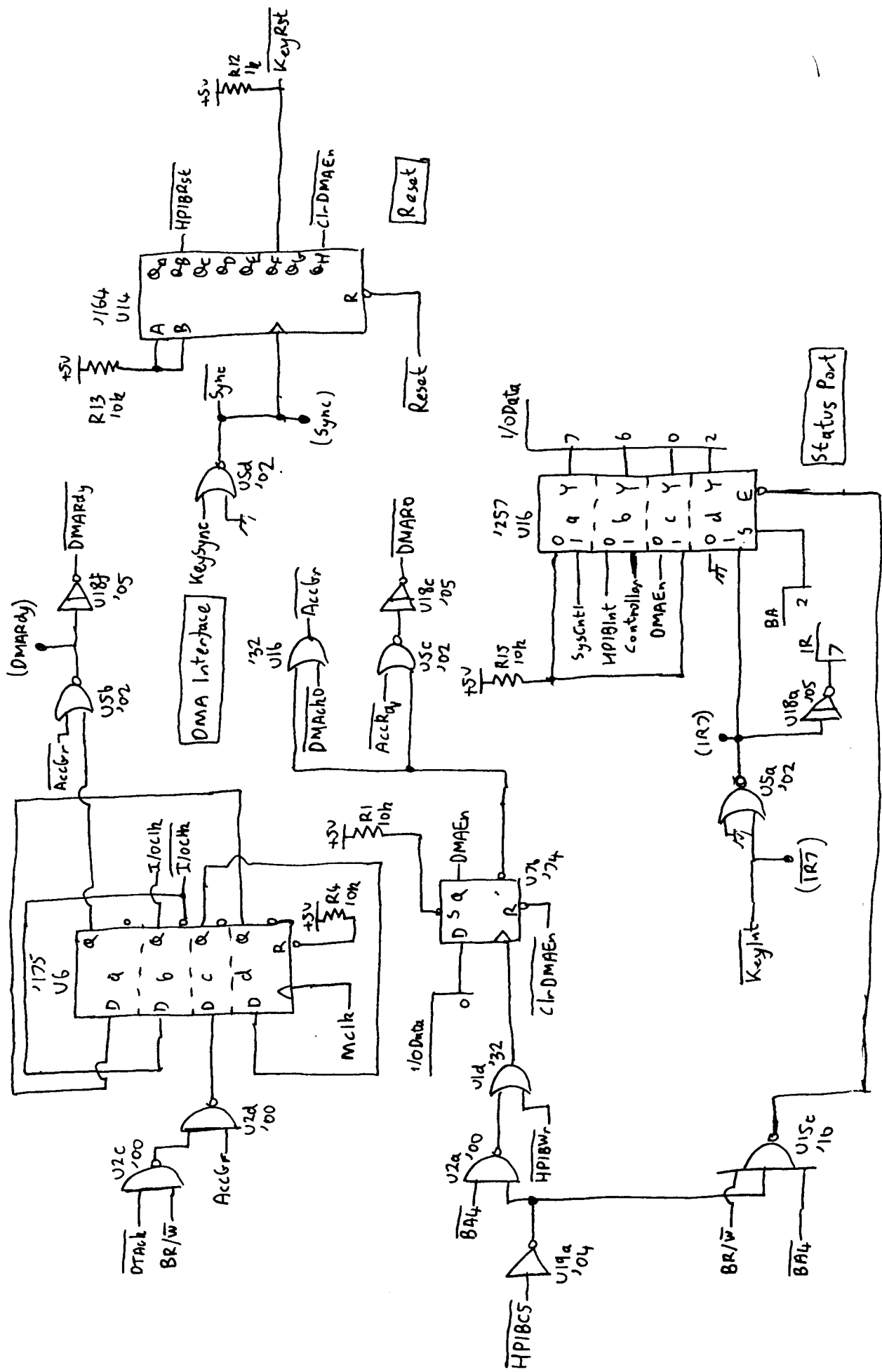
Address Decoder

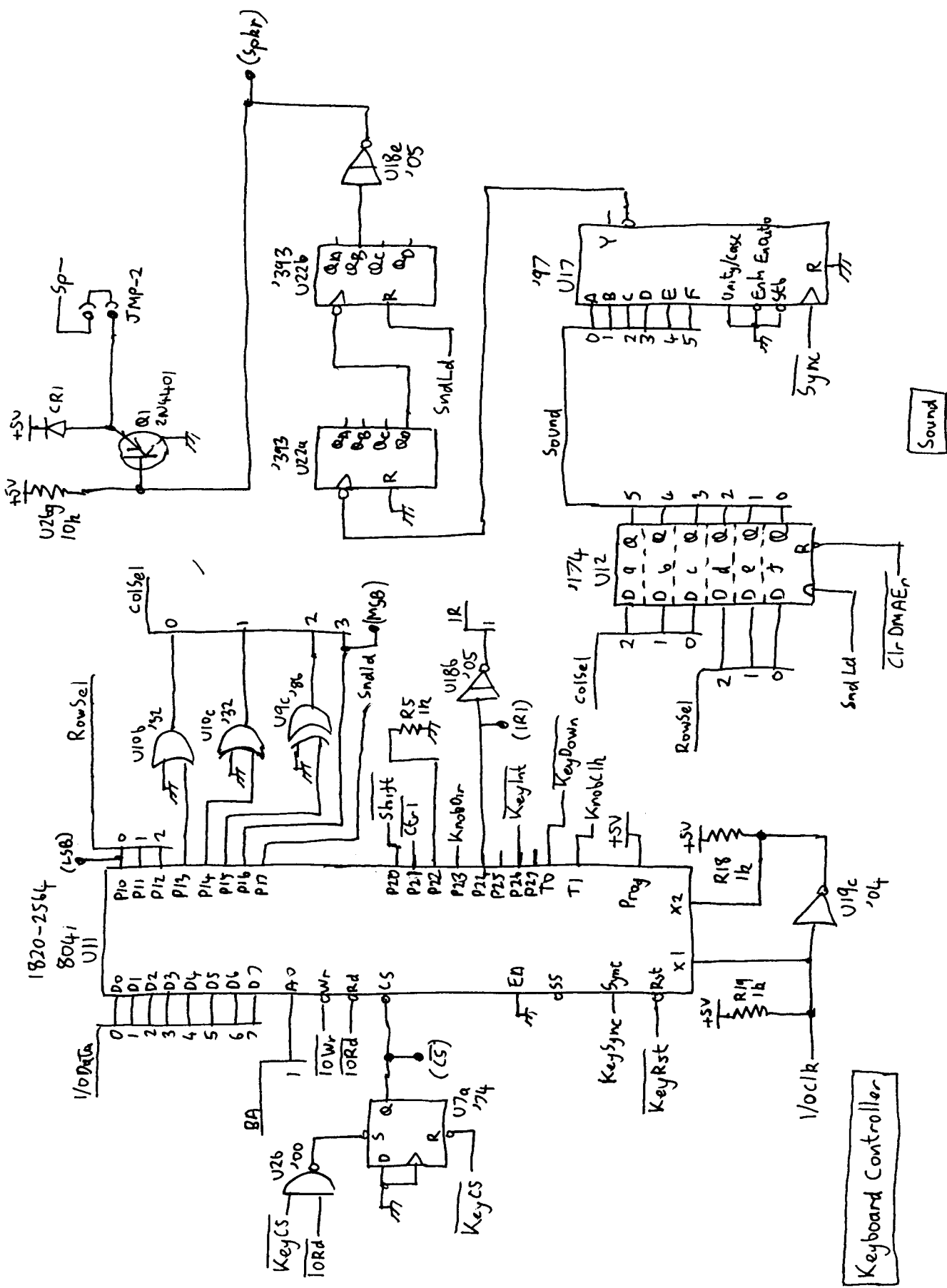


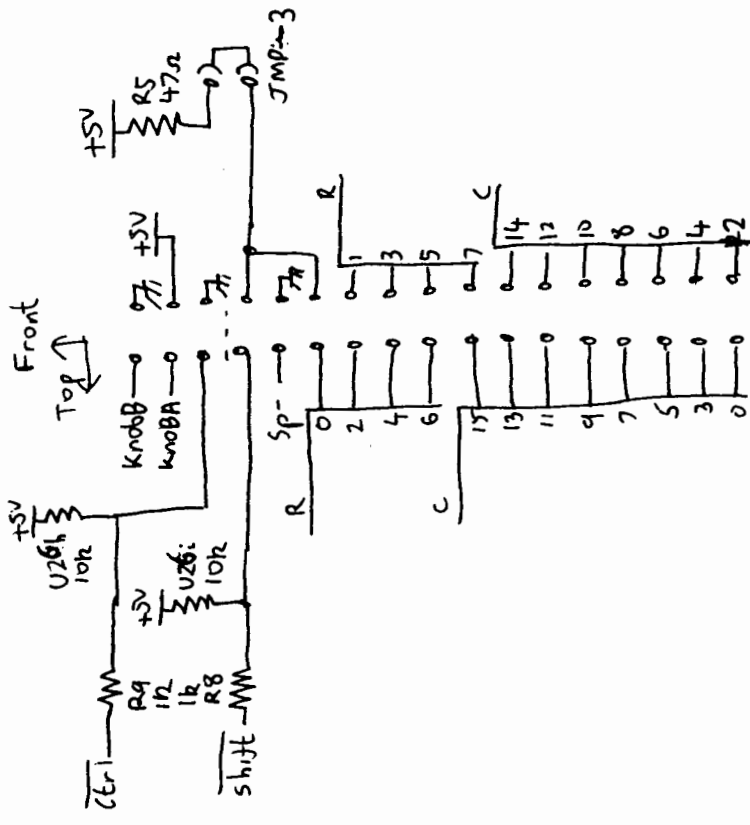
Data Buffer



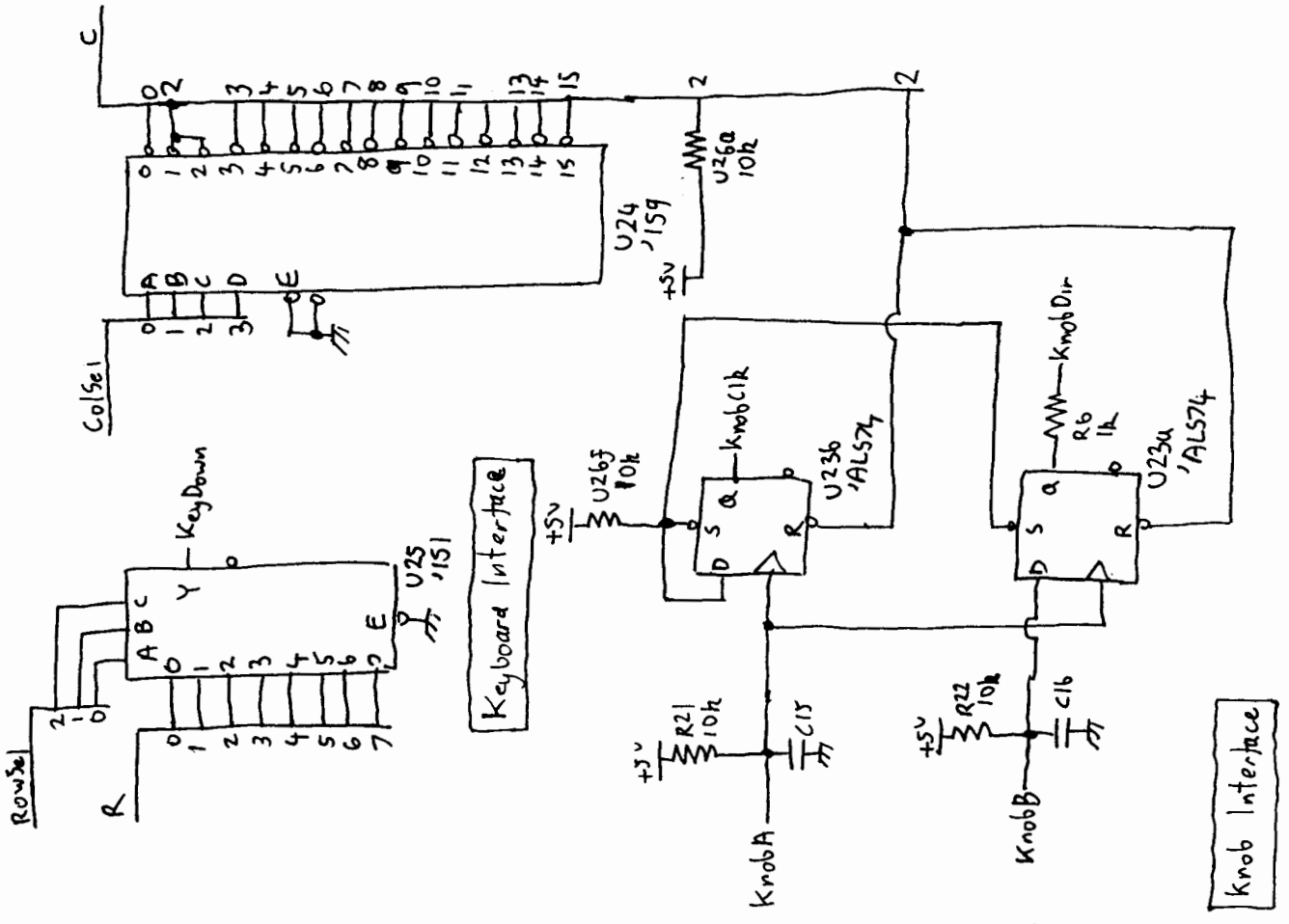
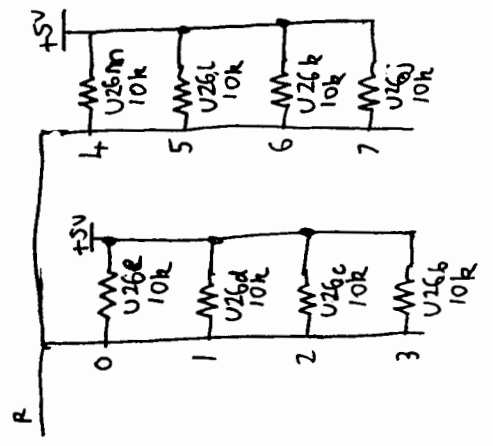


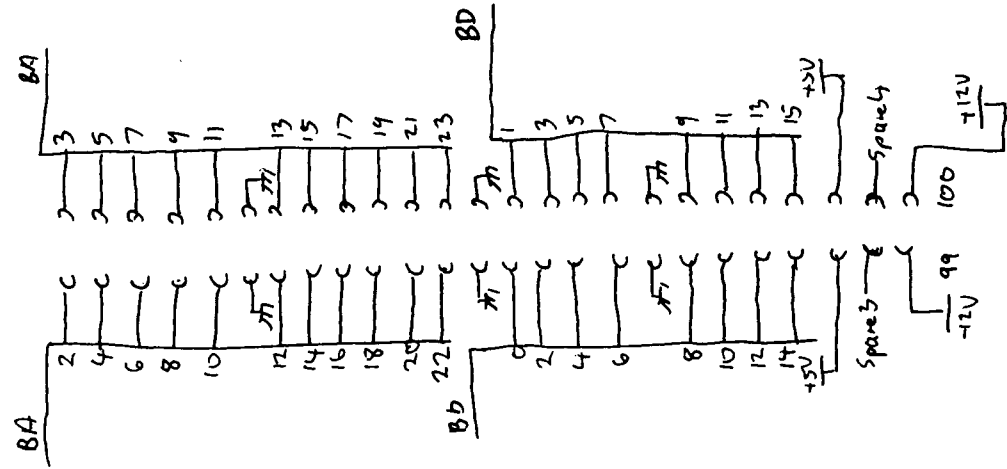




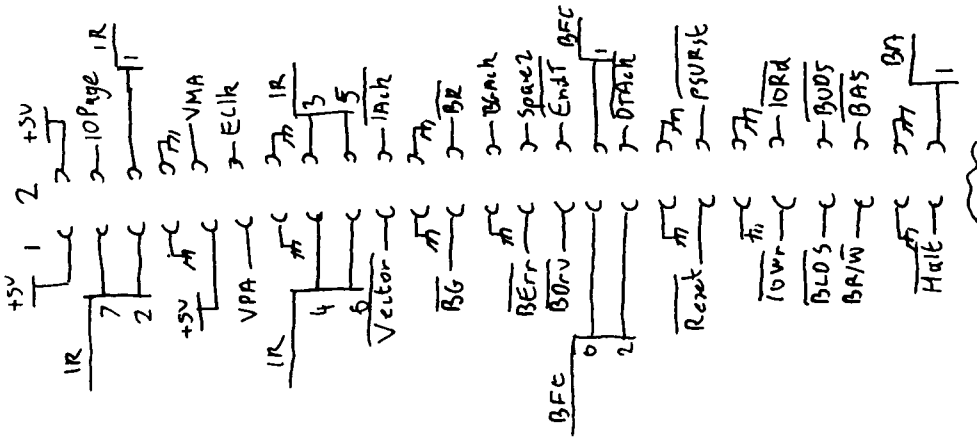


J11
(Keyboard)

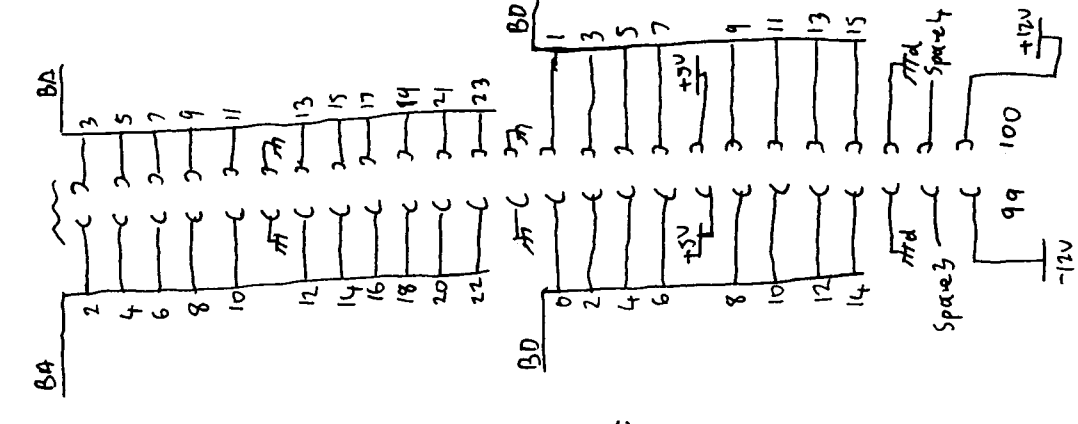




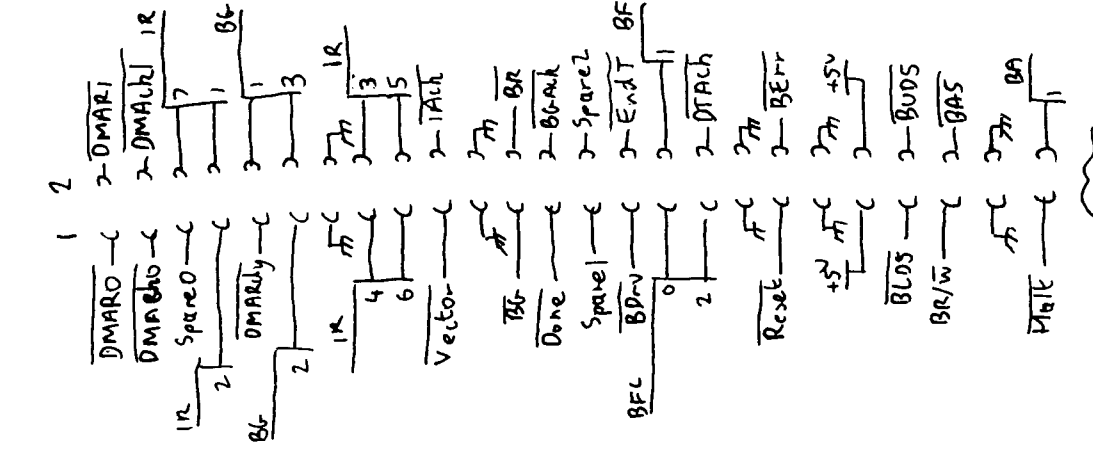
J3
(CPU)



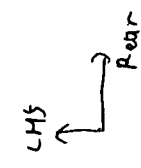
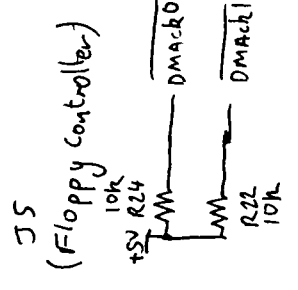
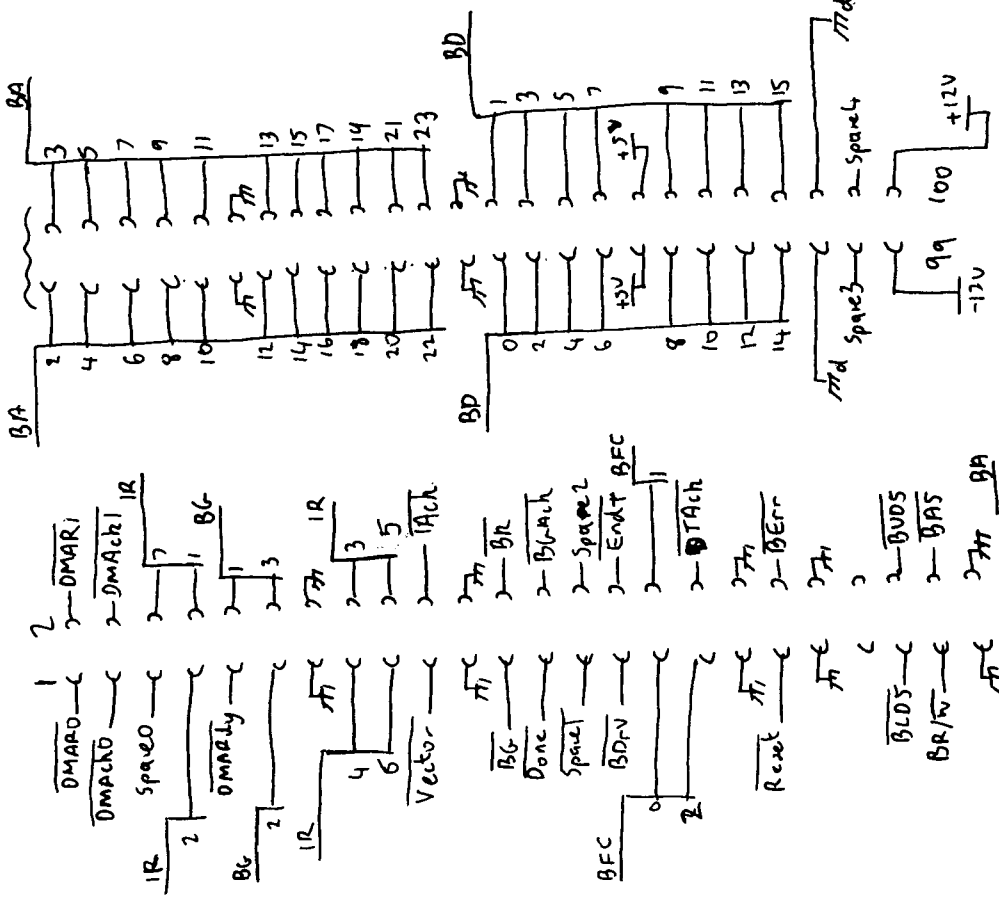
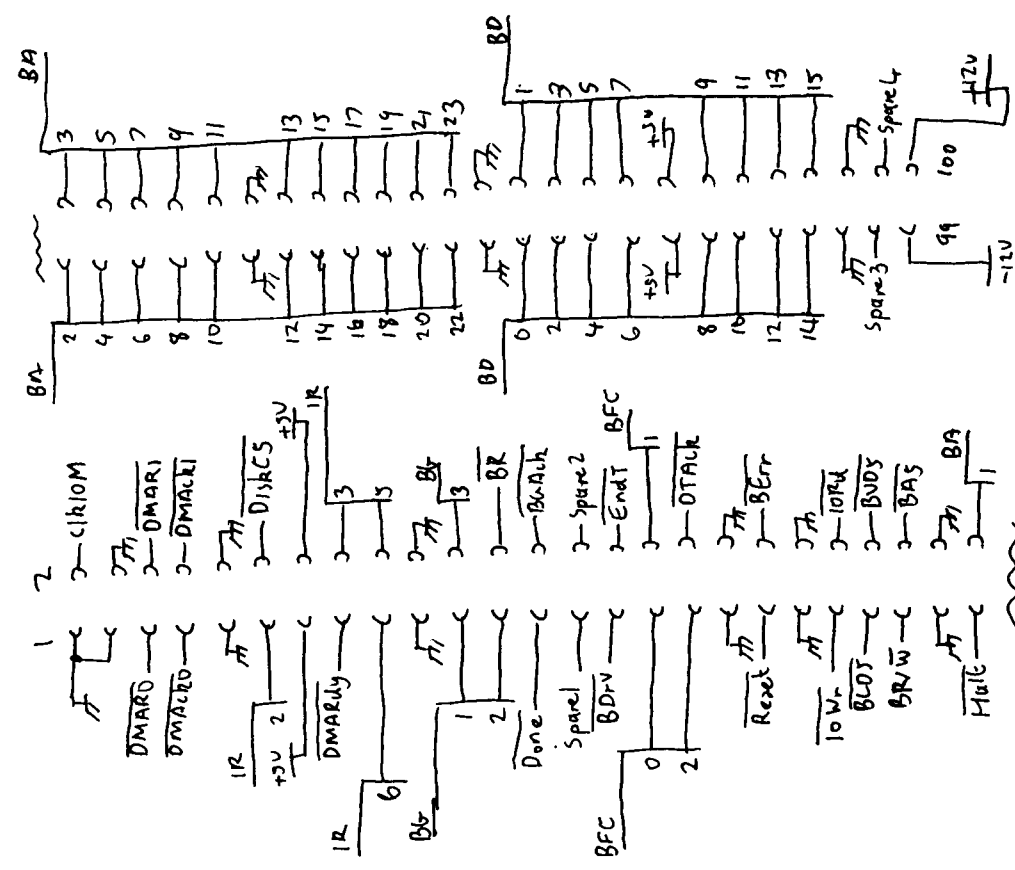
J2
(Backplane)



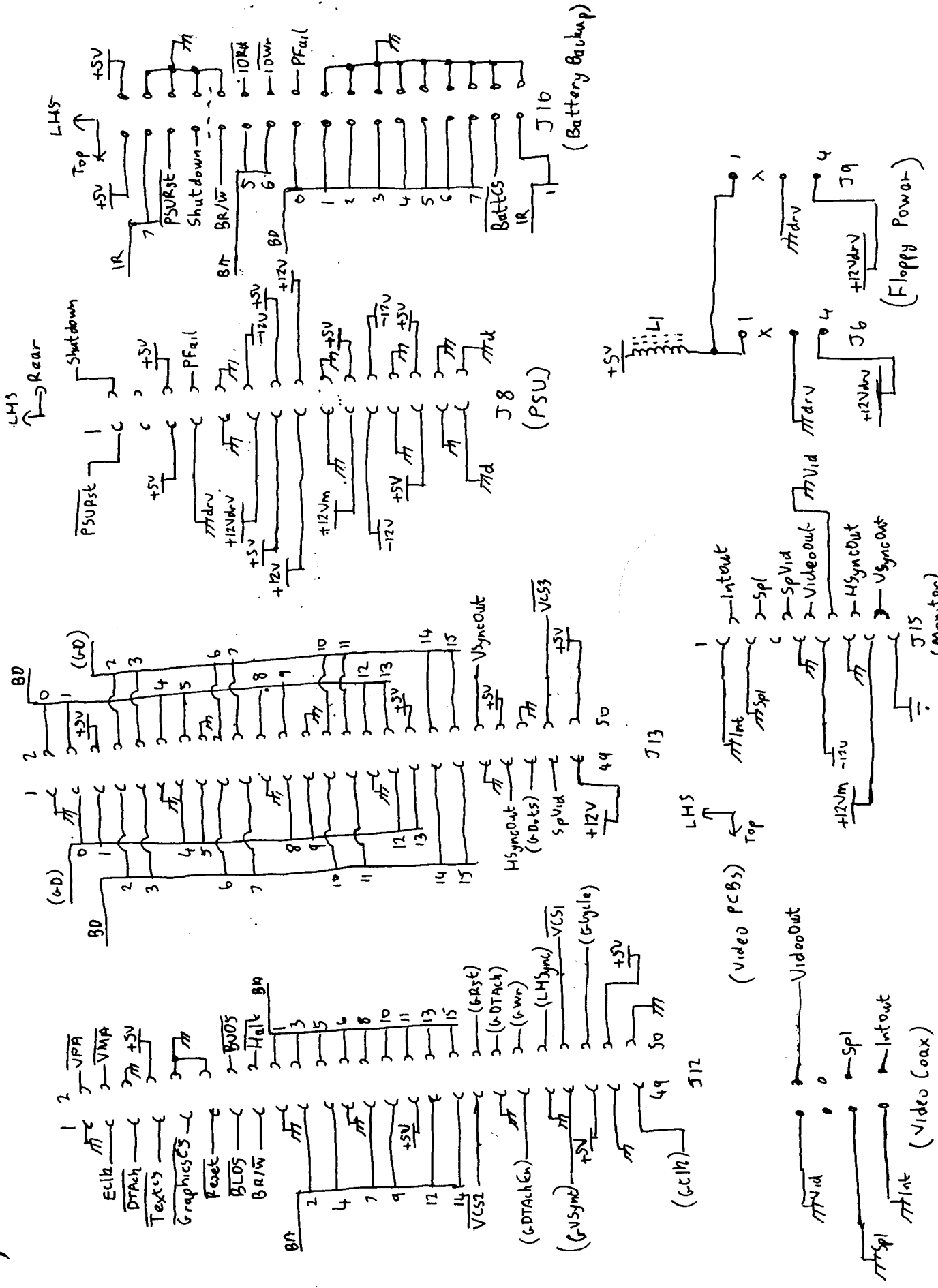
J3
(CPU)

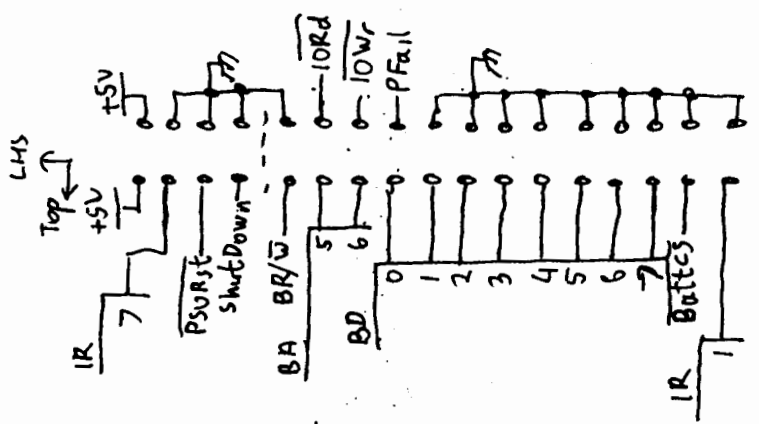


J2
(Backplane)

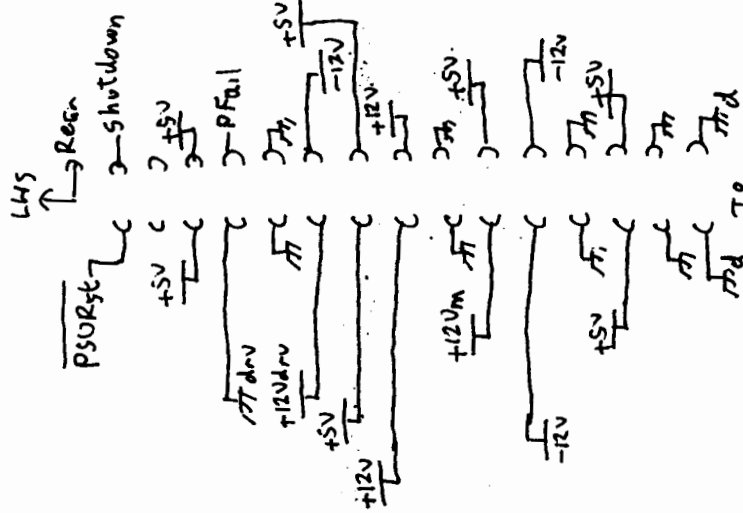
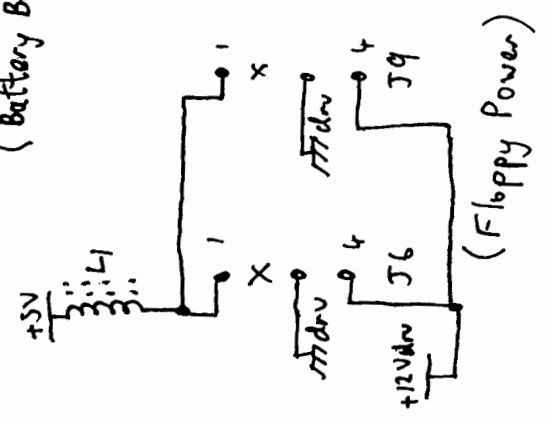


J6
 (Spare)

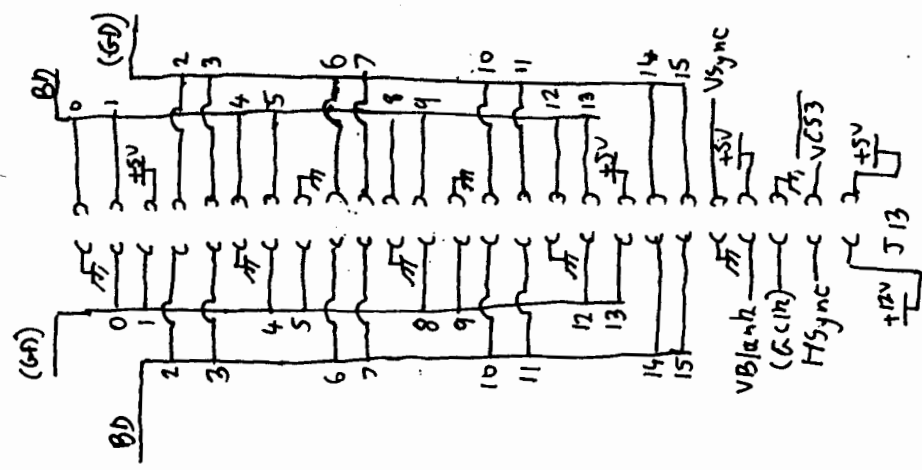




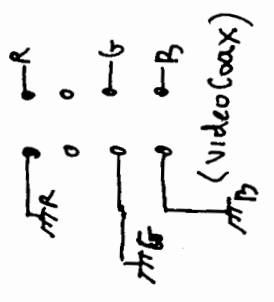
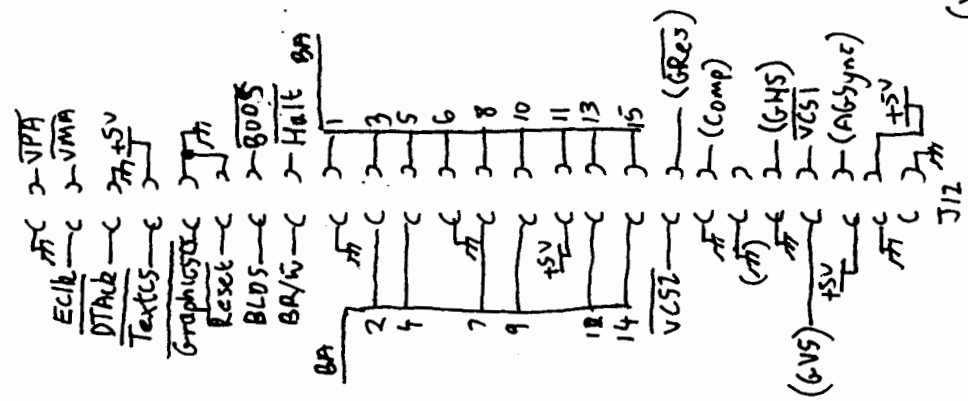
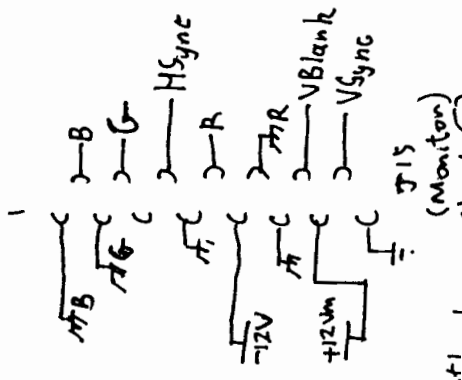
J16
(Battery Backup)

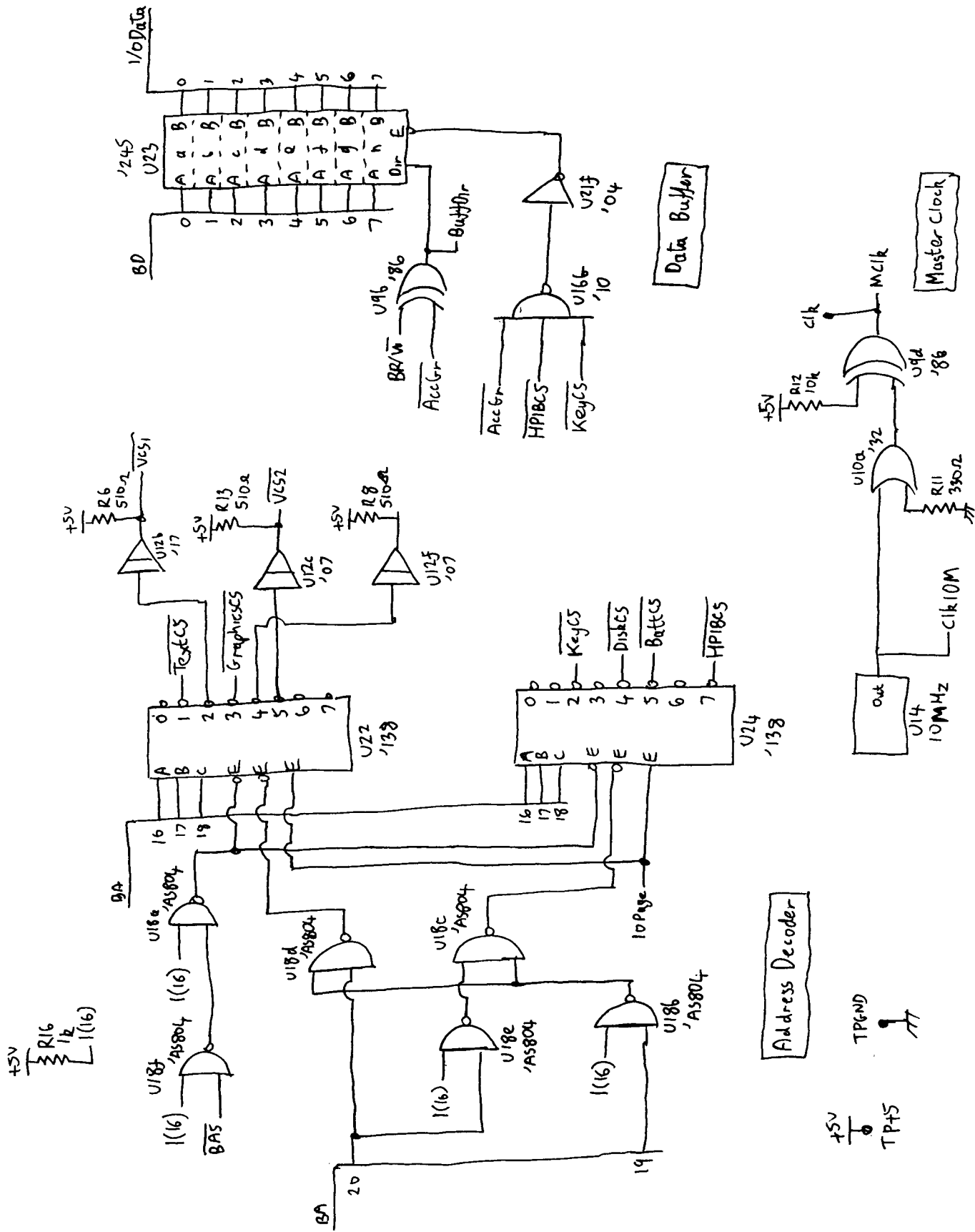


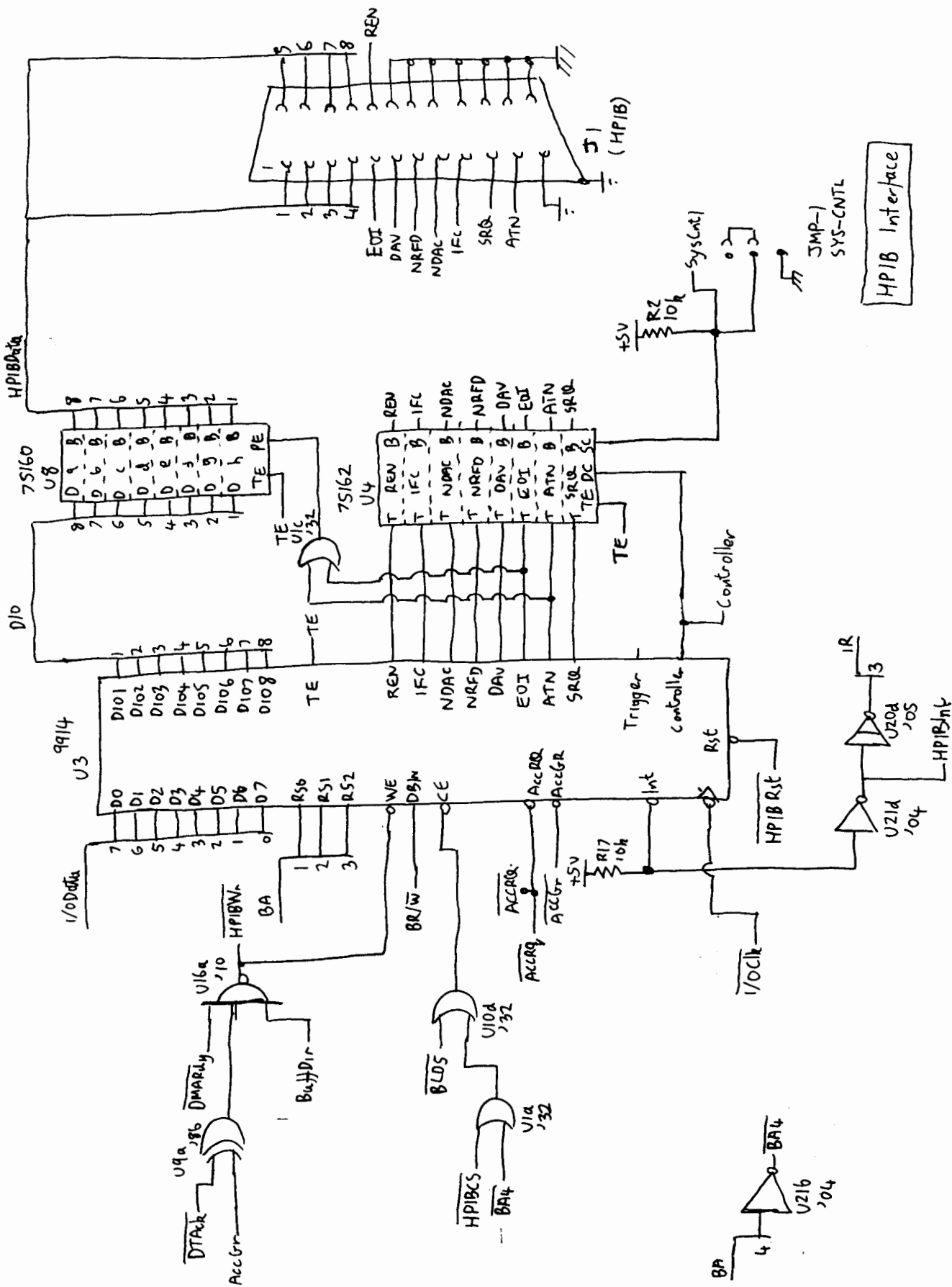
J8
(PSU)

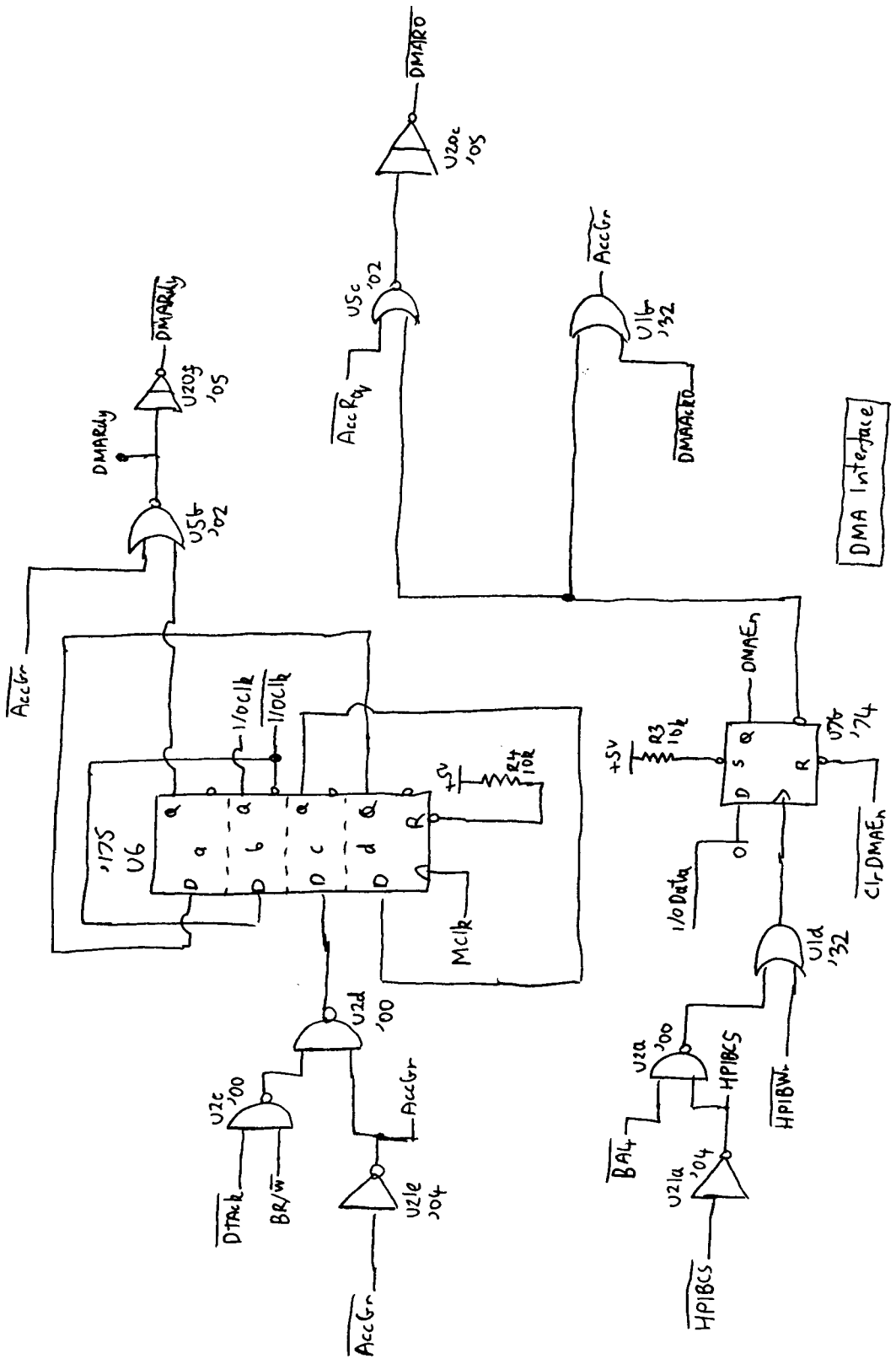


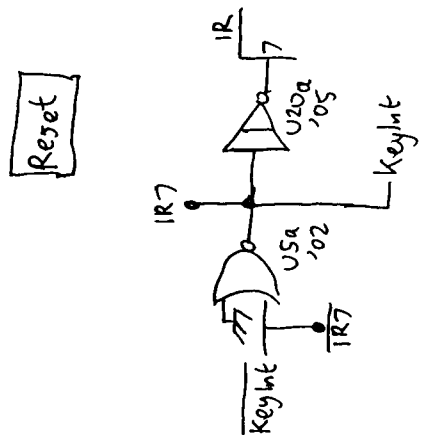
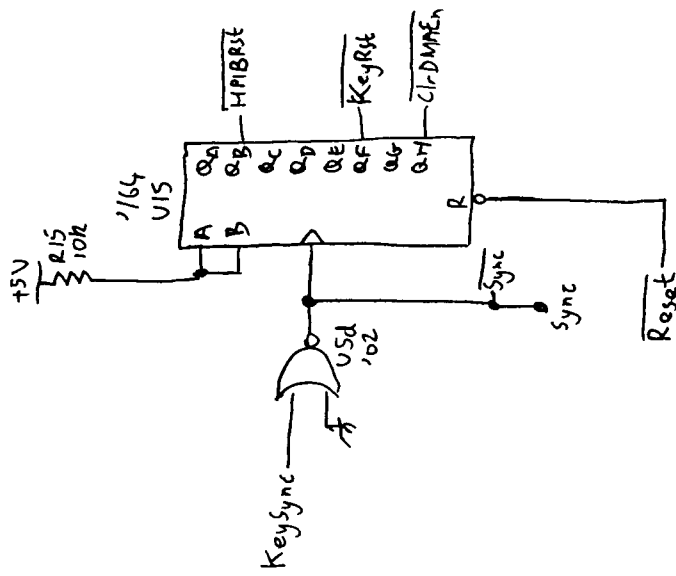
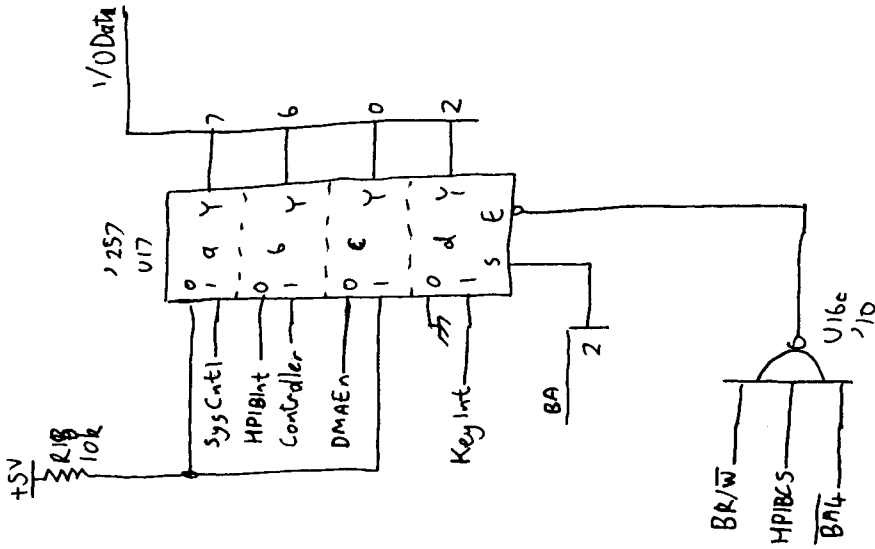
(Video PCB5)

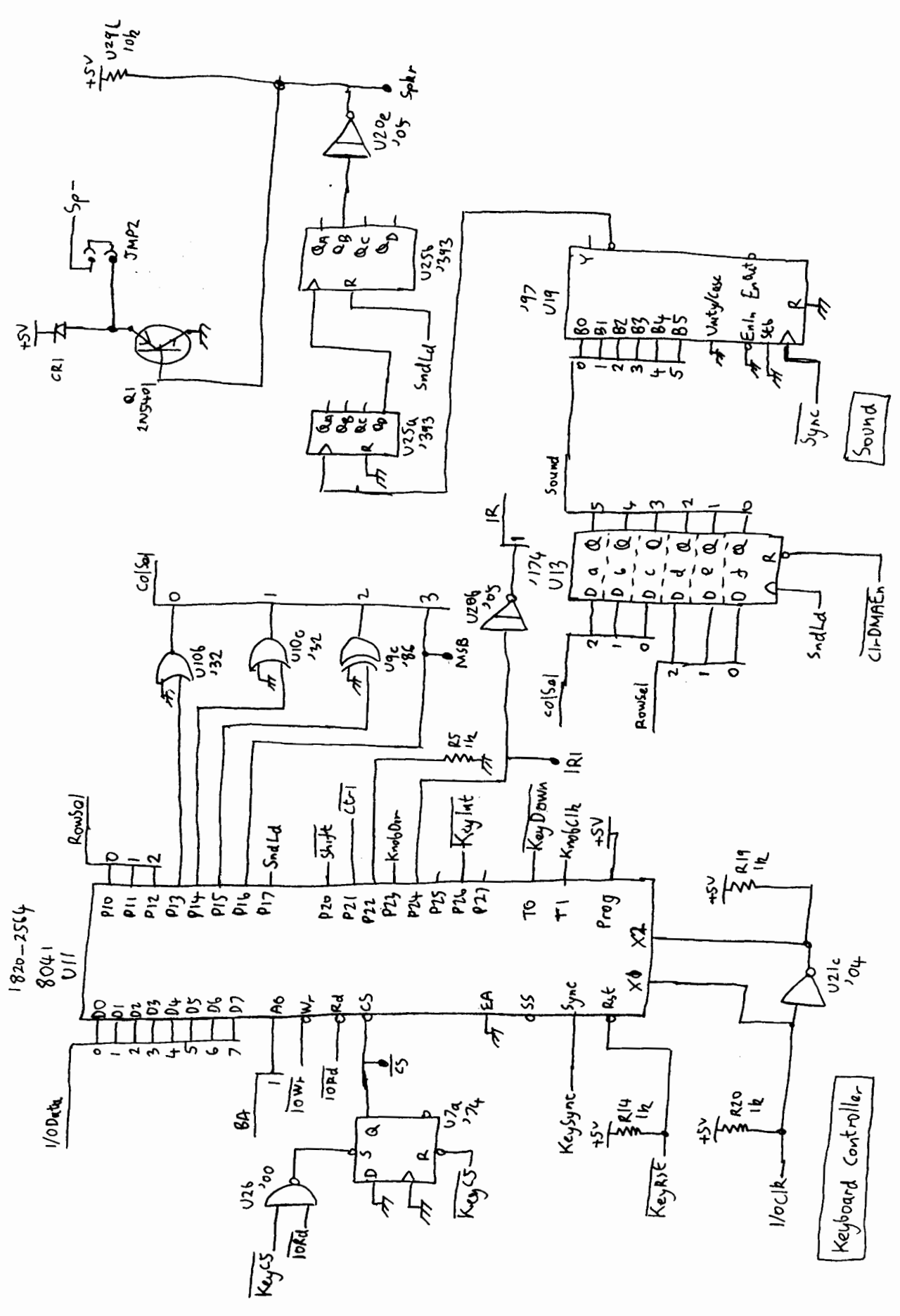






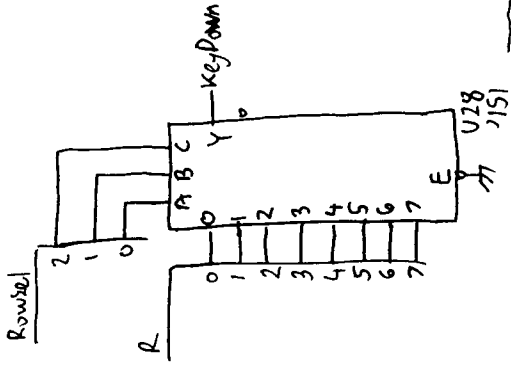
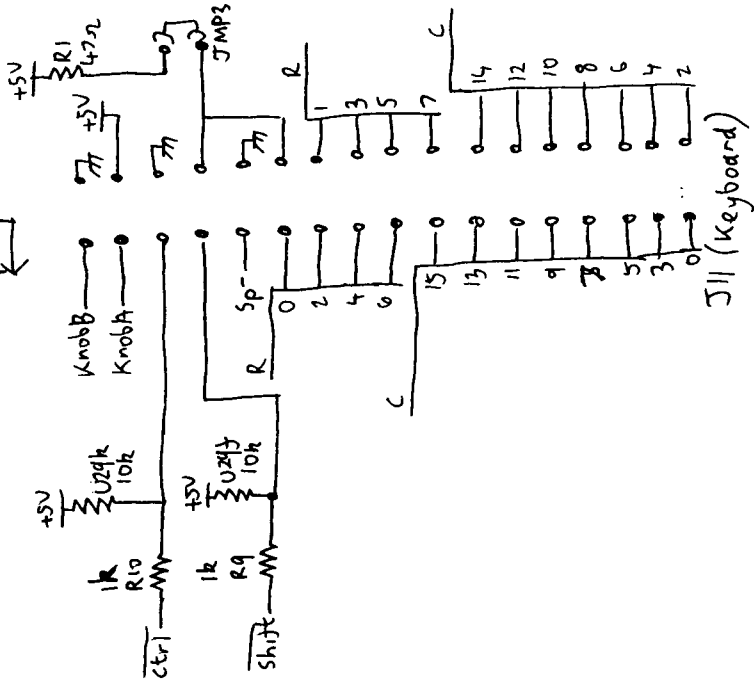




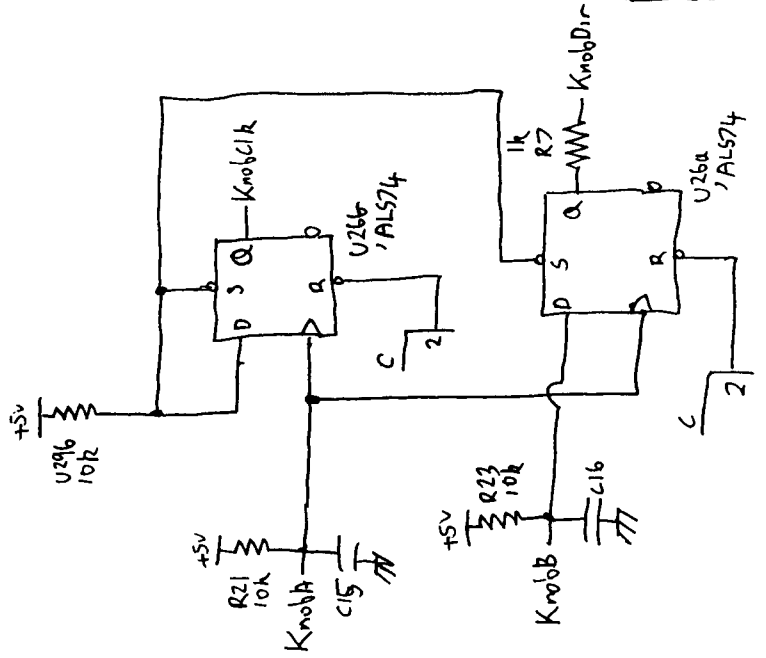
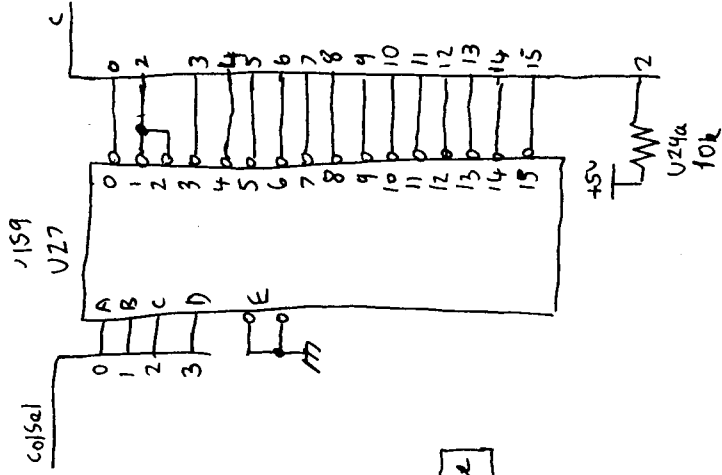


HP 9836 Motherboard Sheet 8 09836-69502

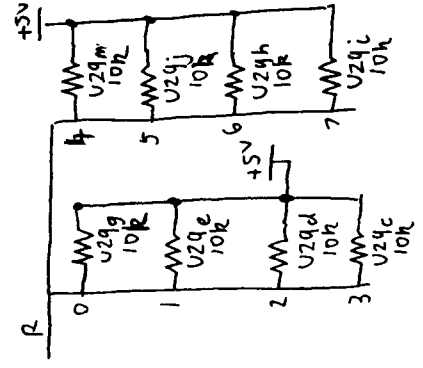
Front
Top

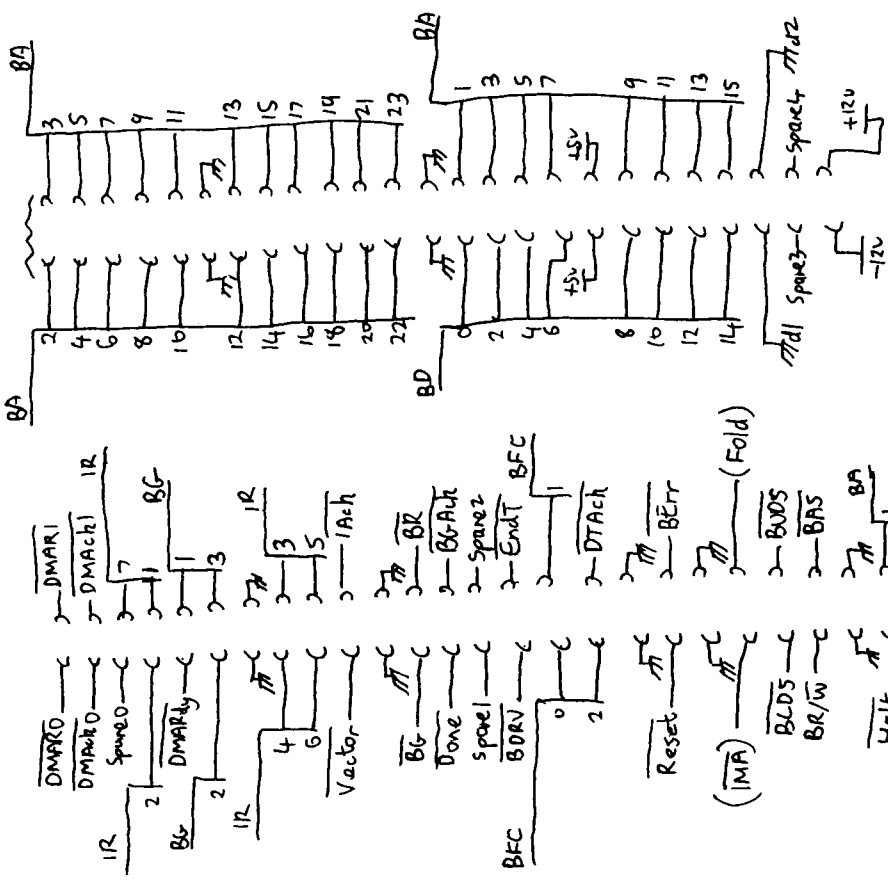


Keyboard Interface



Knob Interface

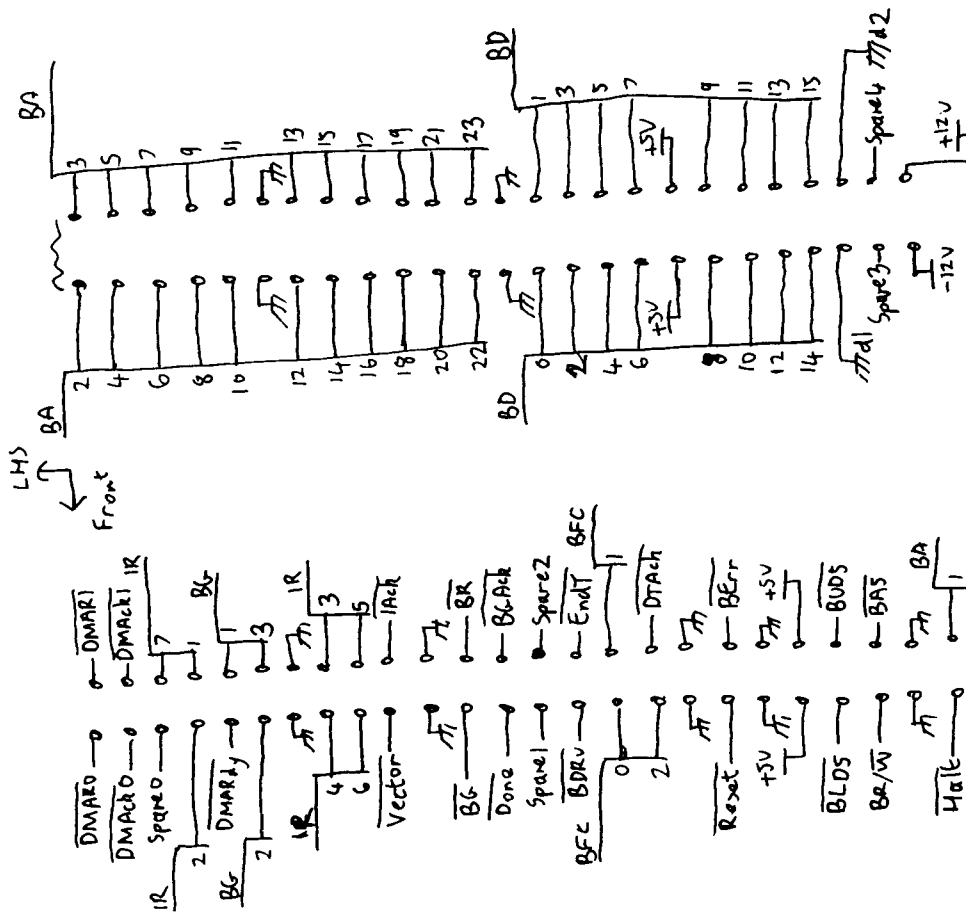




LMS
Top

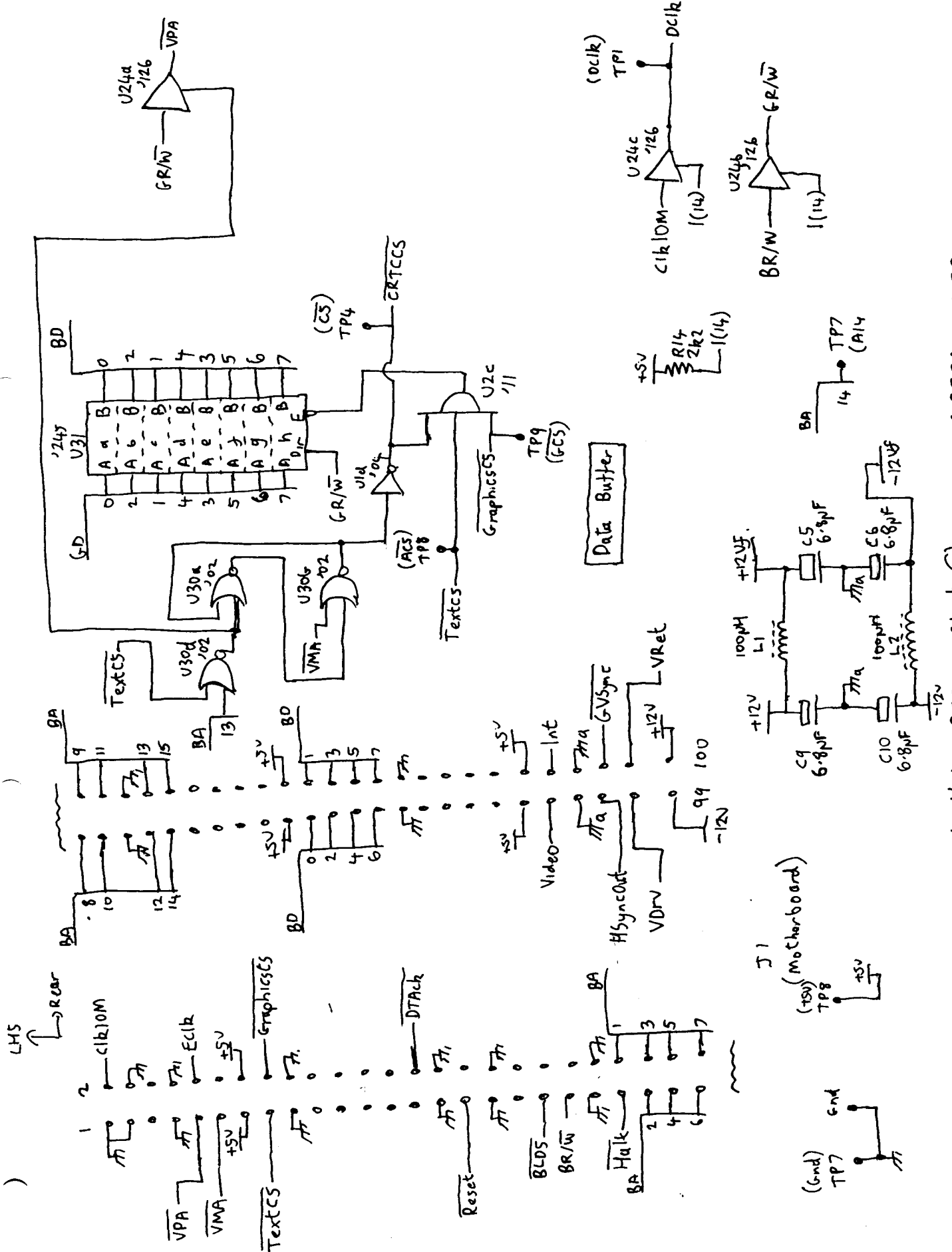
DIO Slot
(Typical of 8)

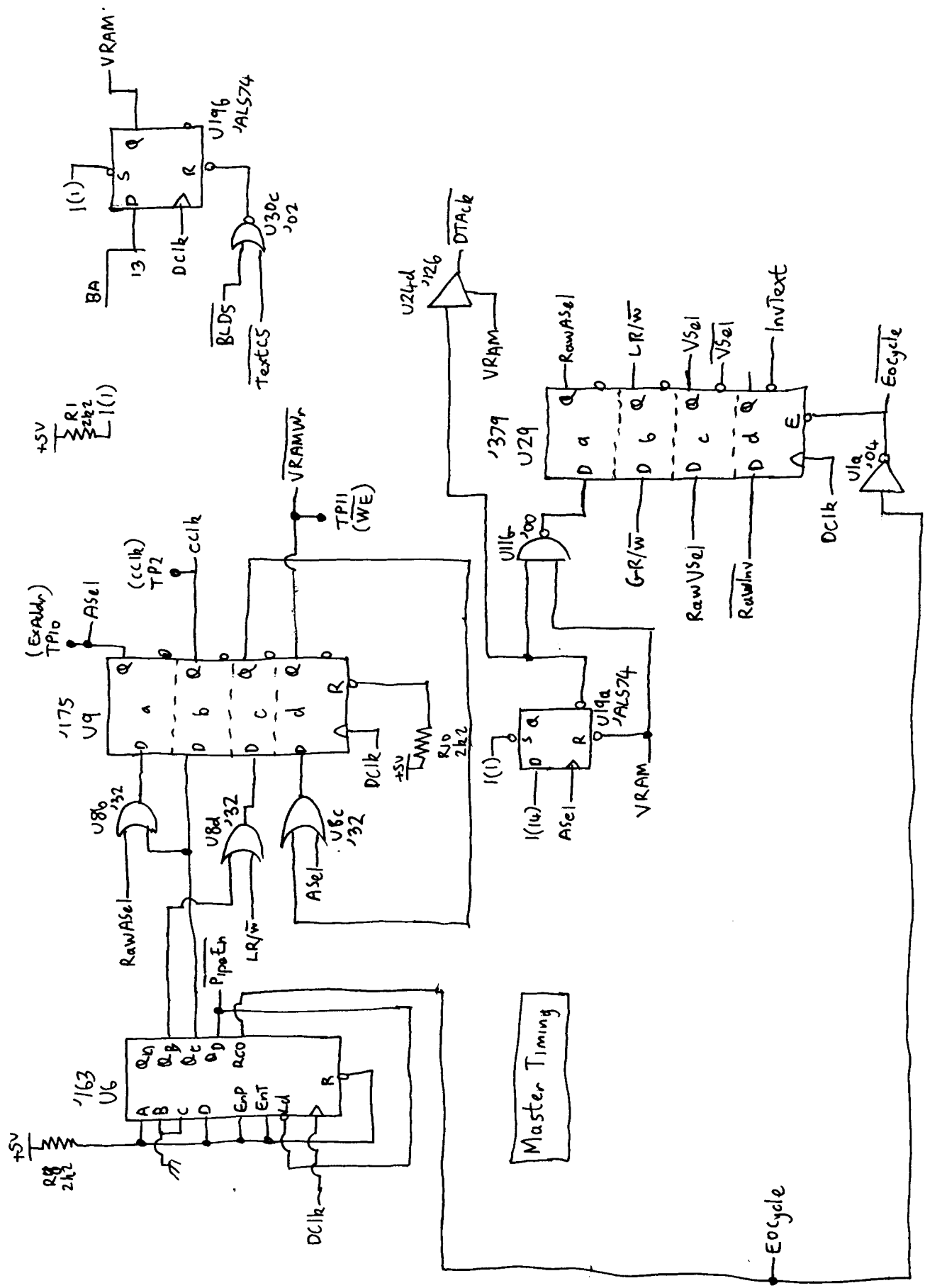
Signal Names in Parentheses are connected between the 8 DIO Slots, hot to the mother board

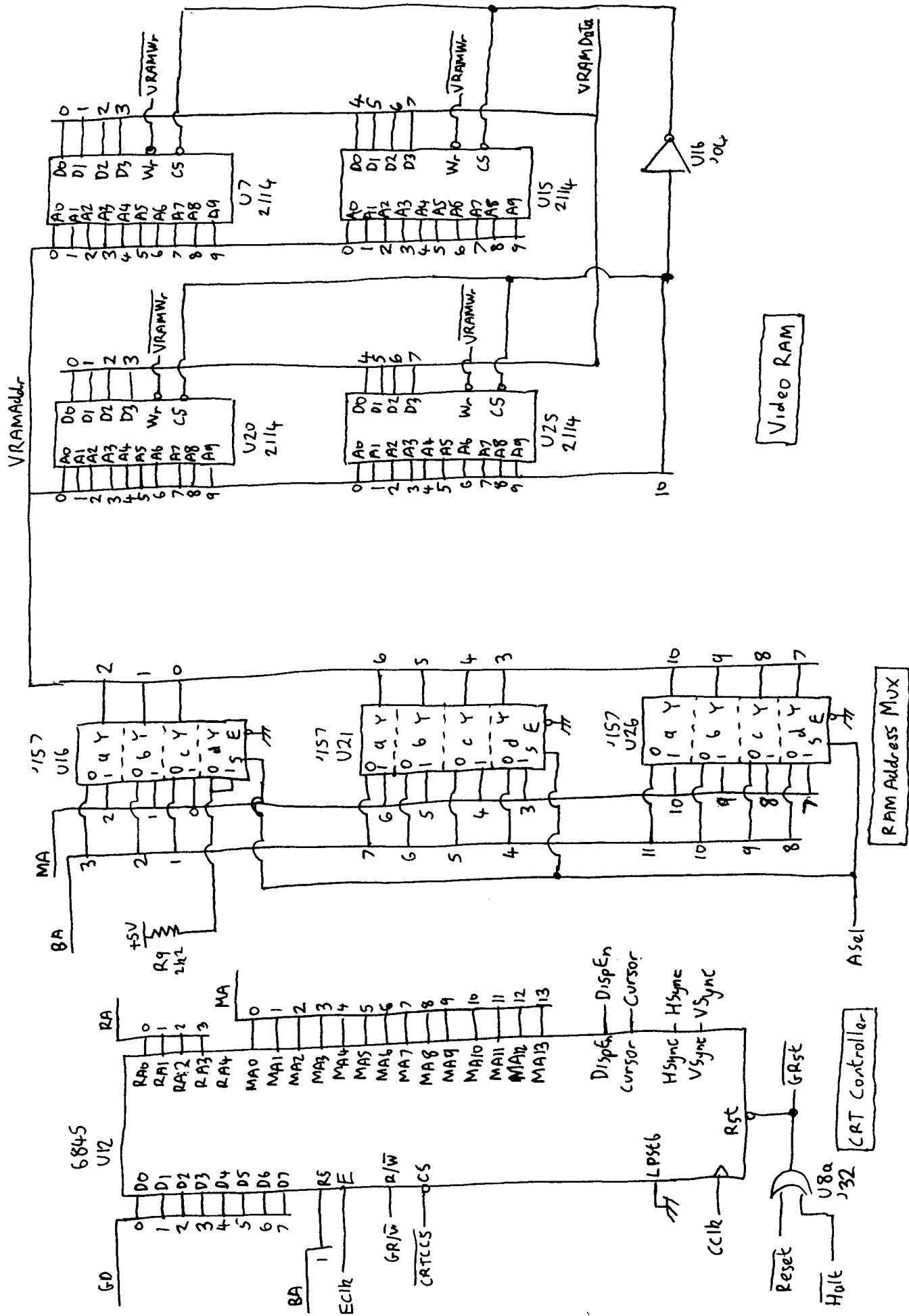


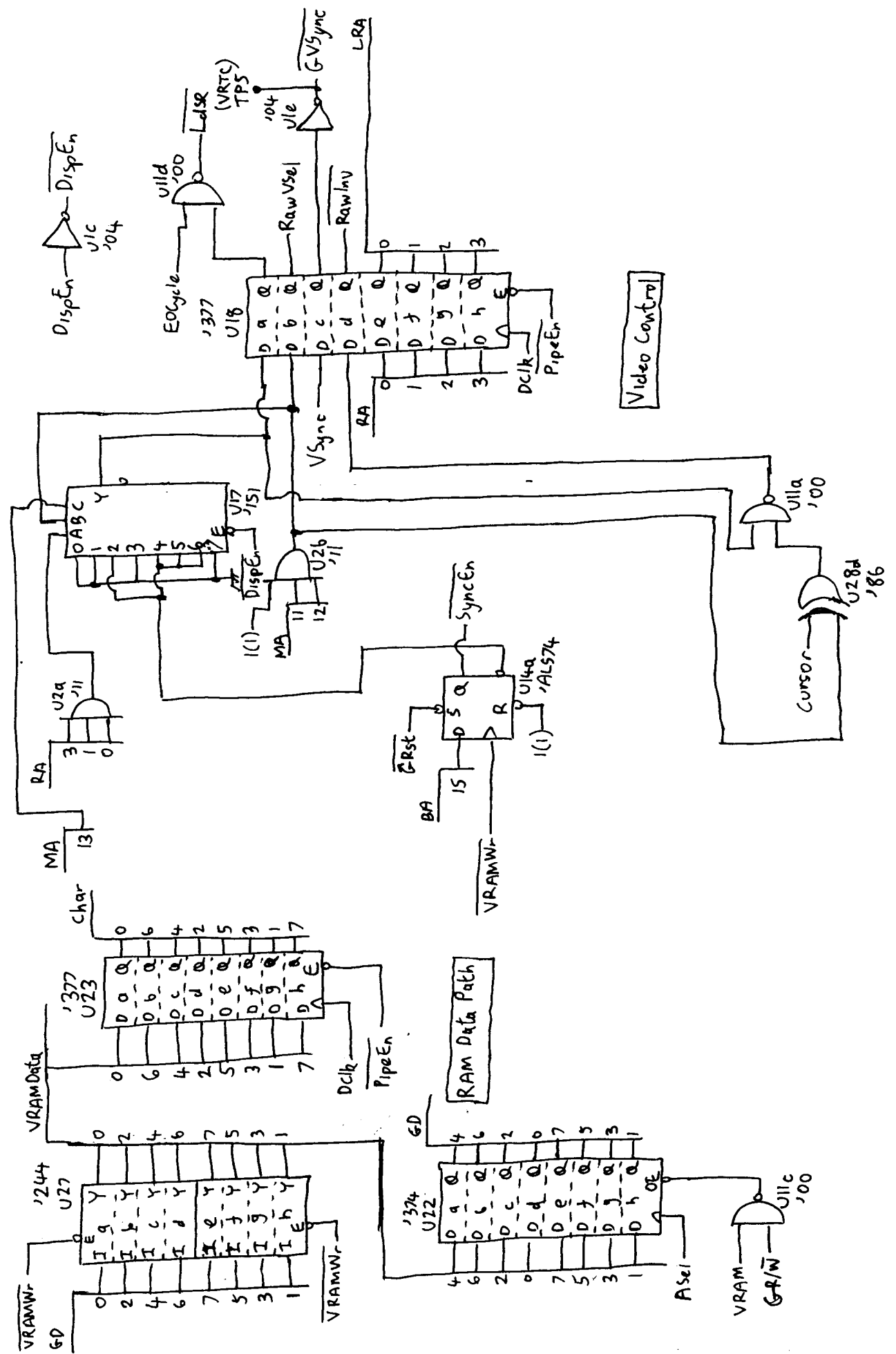
LMS
Front

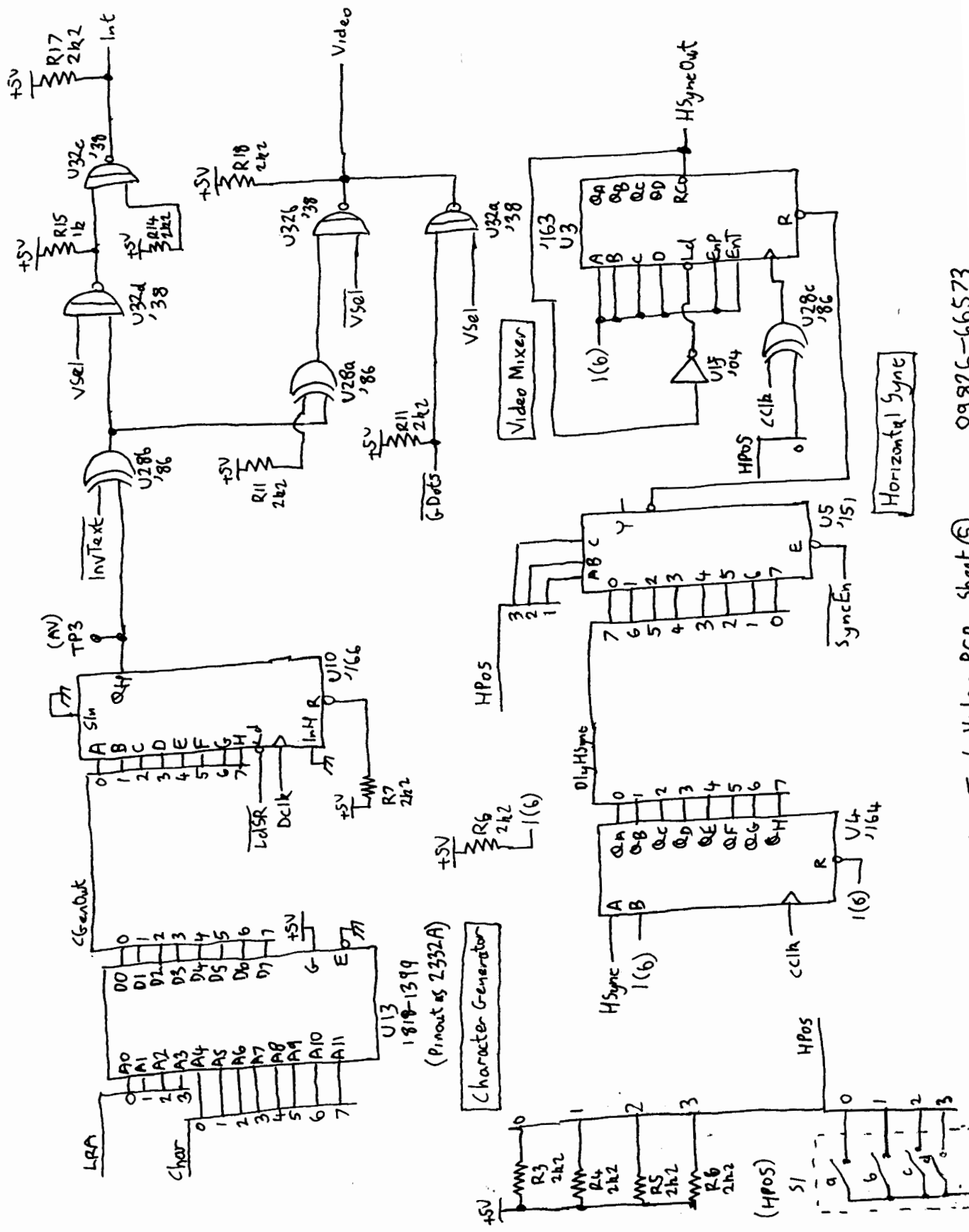
(Mother board)



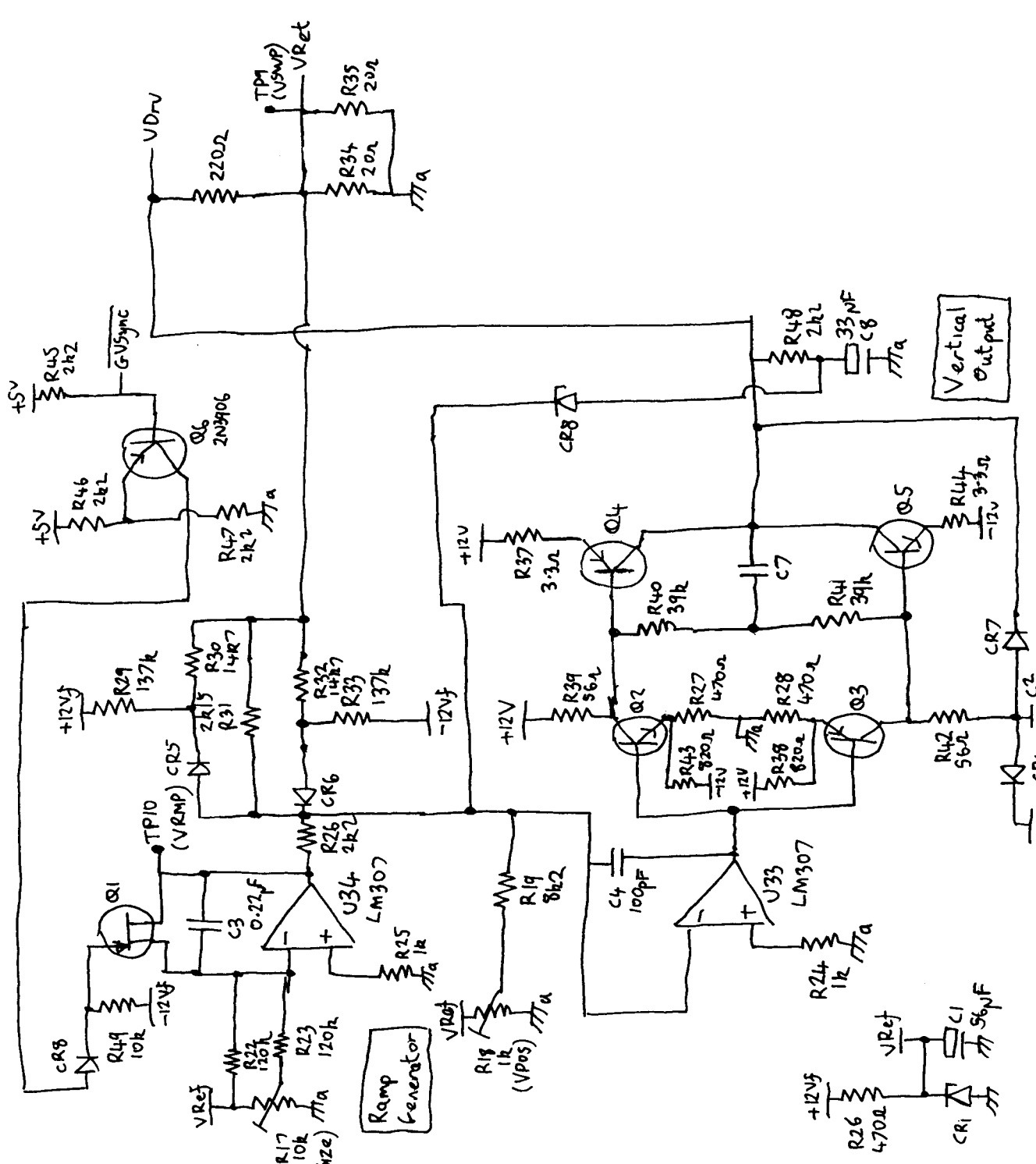
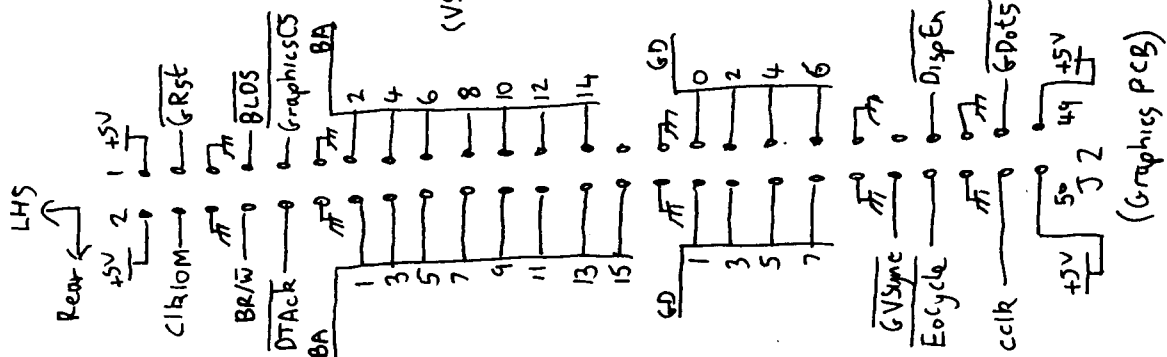






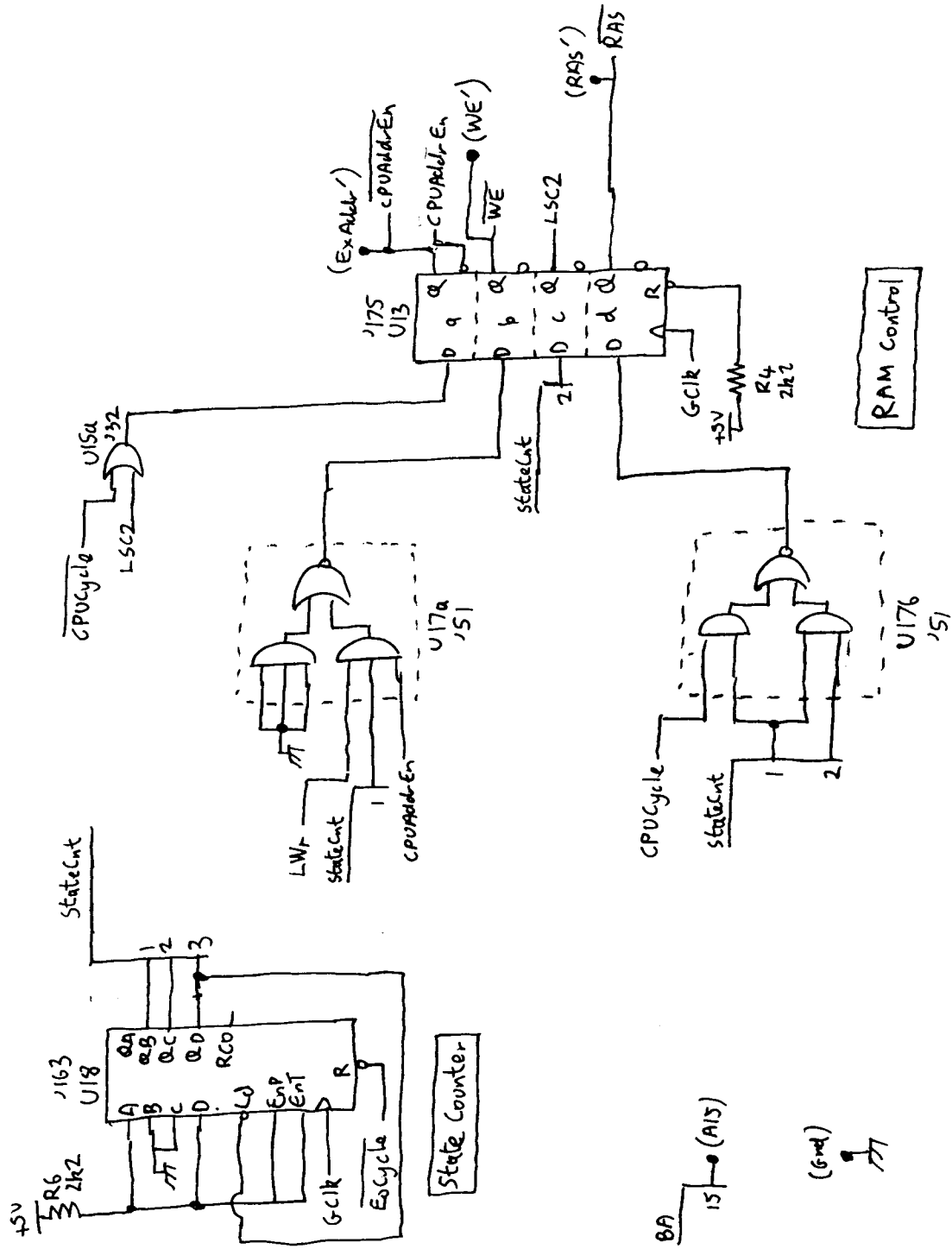
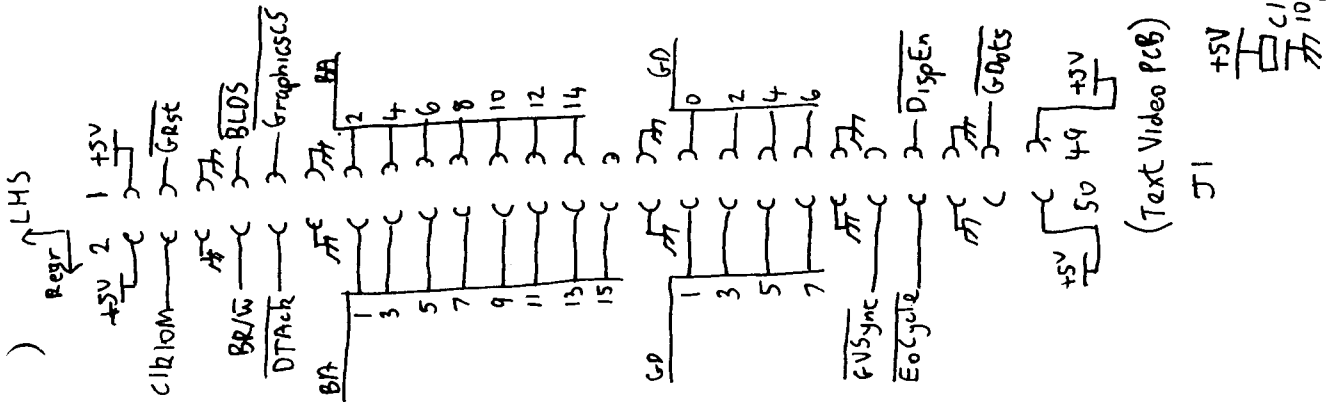


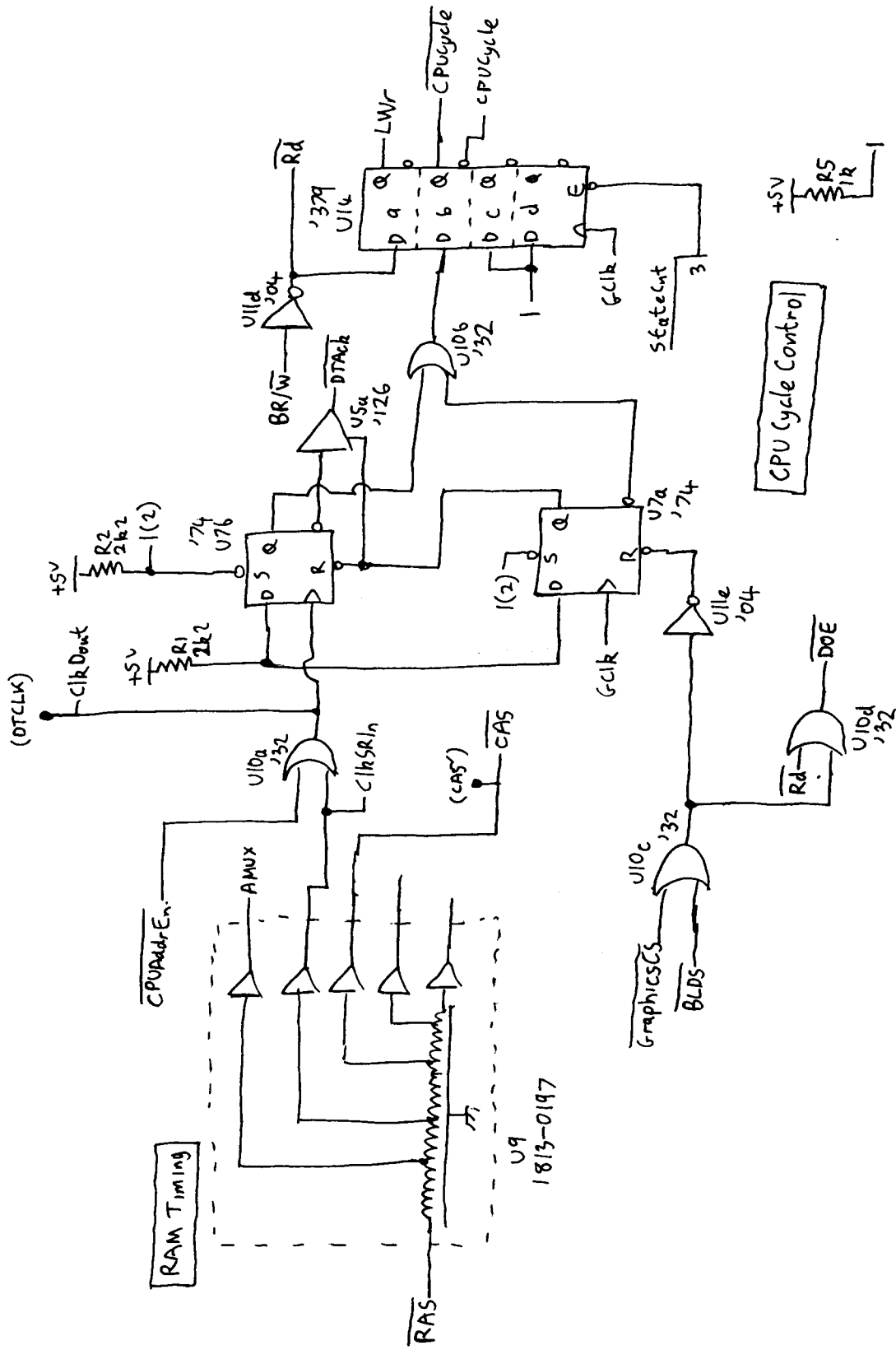
Horizontal Sync

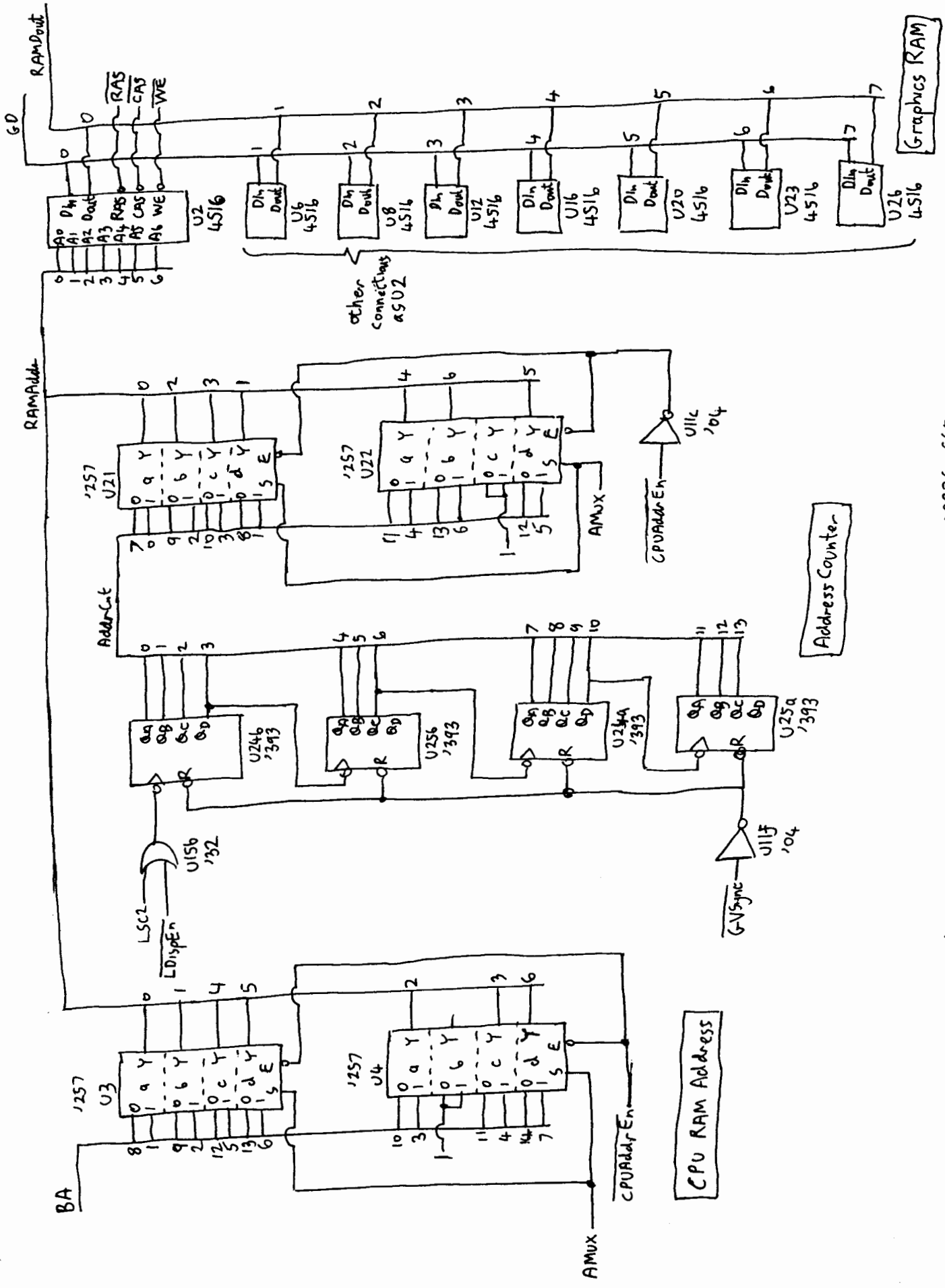


H99870 Test Video PCB Sheet (6) 09826-66573

LHS



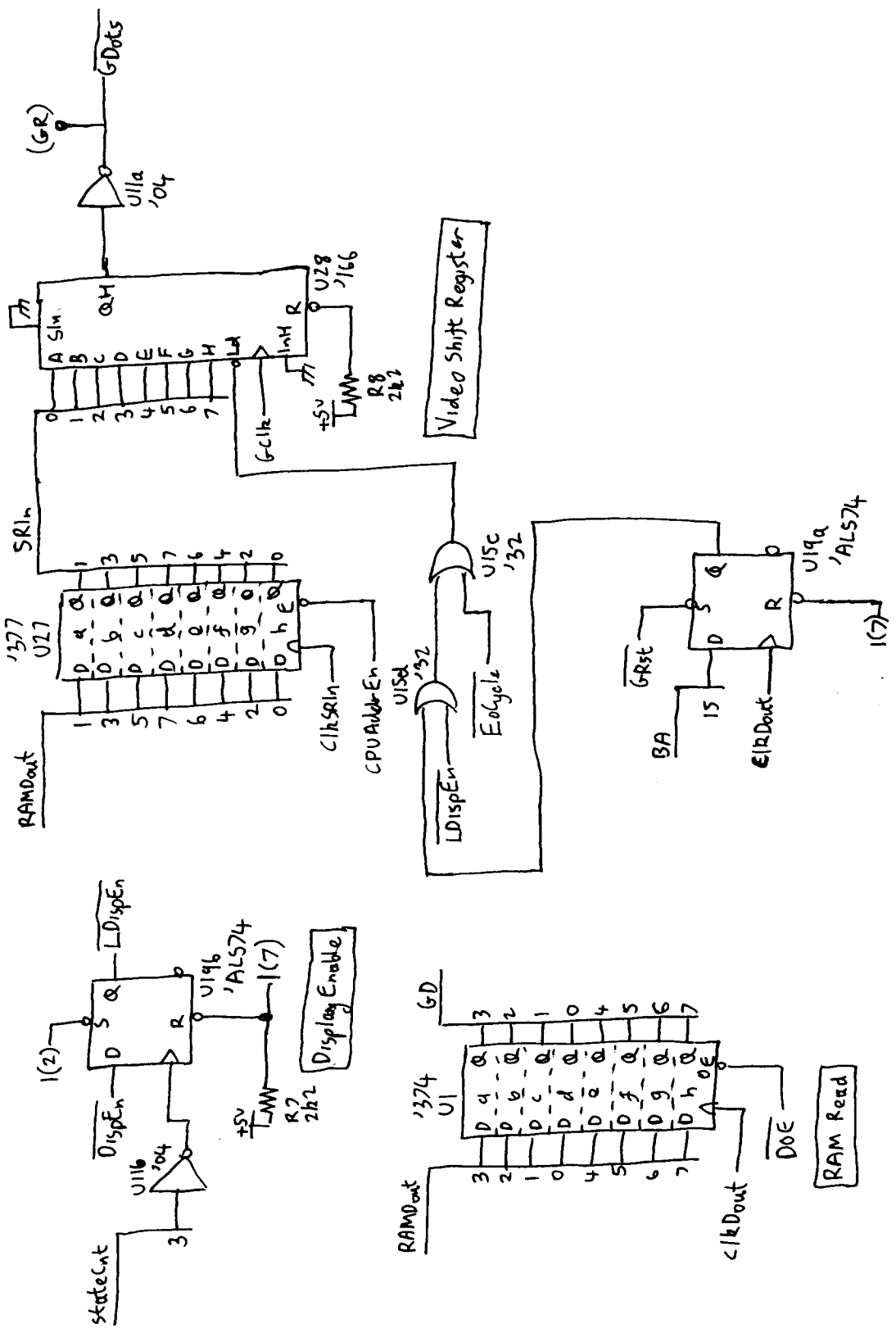


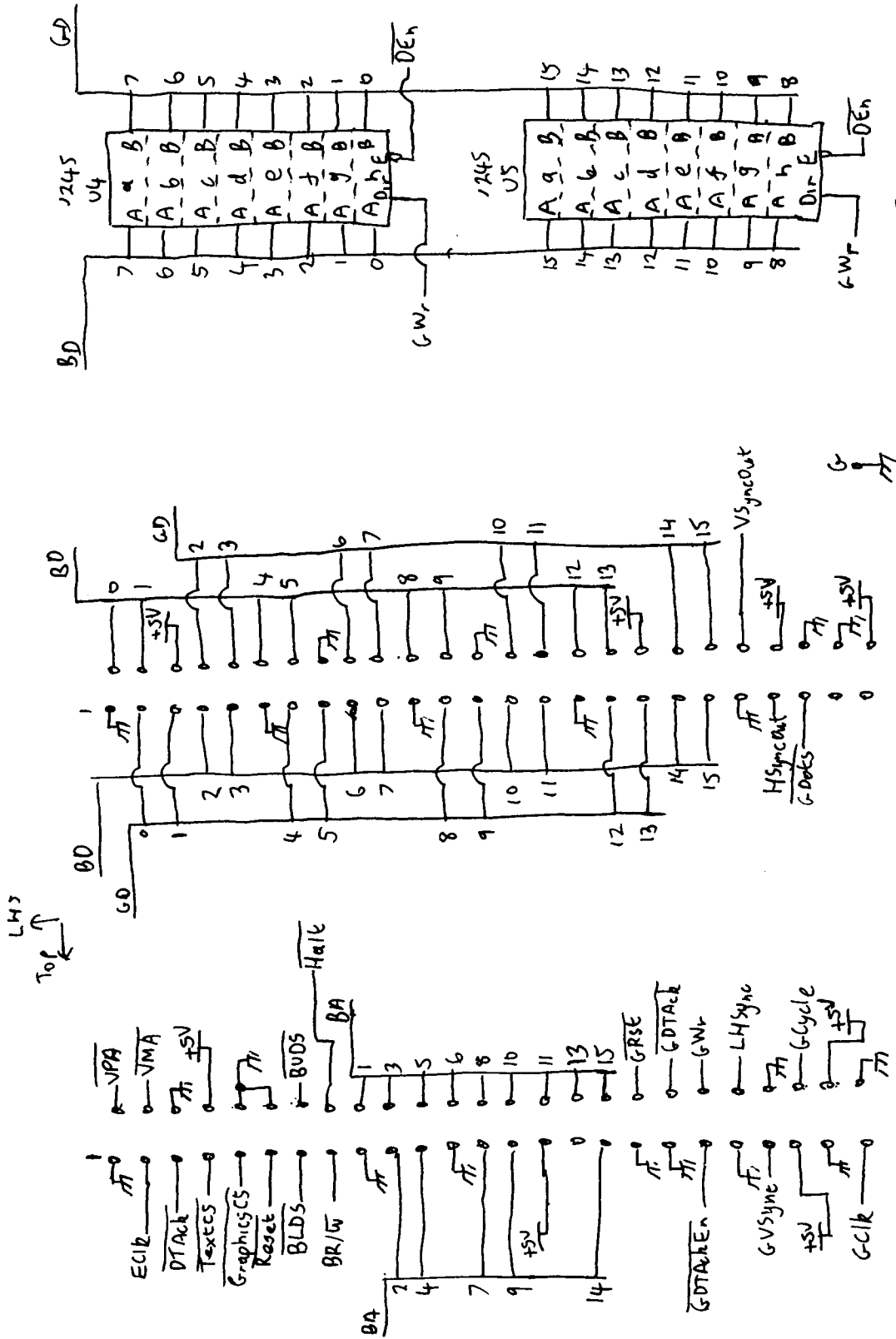


09826-66575

HP9900 Computer Pro (S.F.)

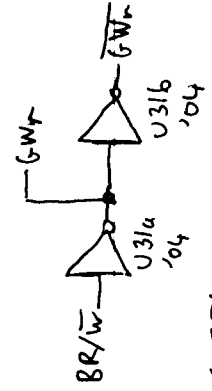
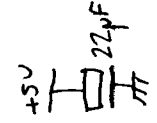
HP9900 Computer Pro (S.F.)

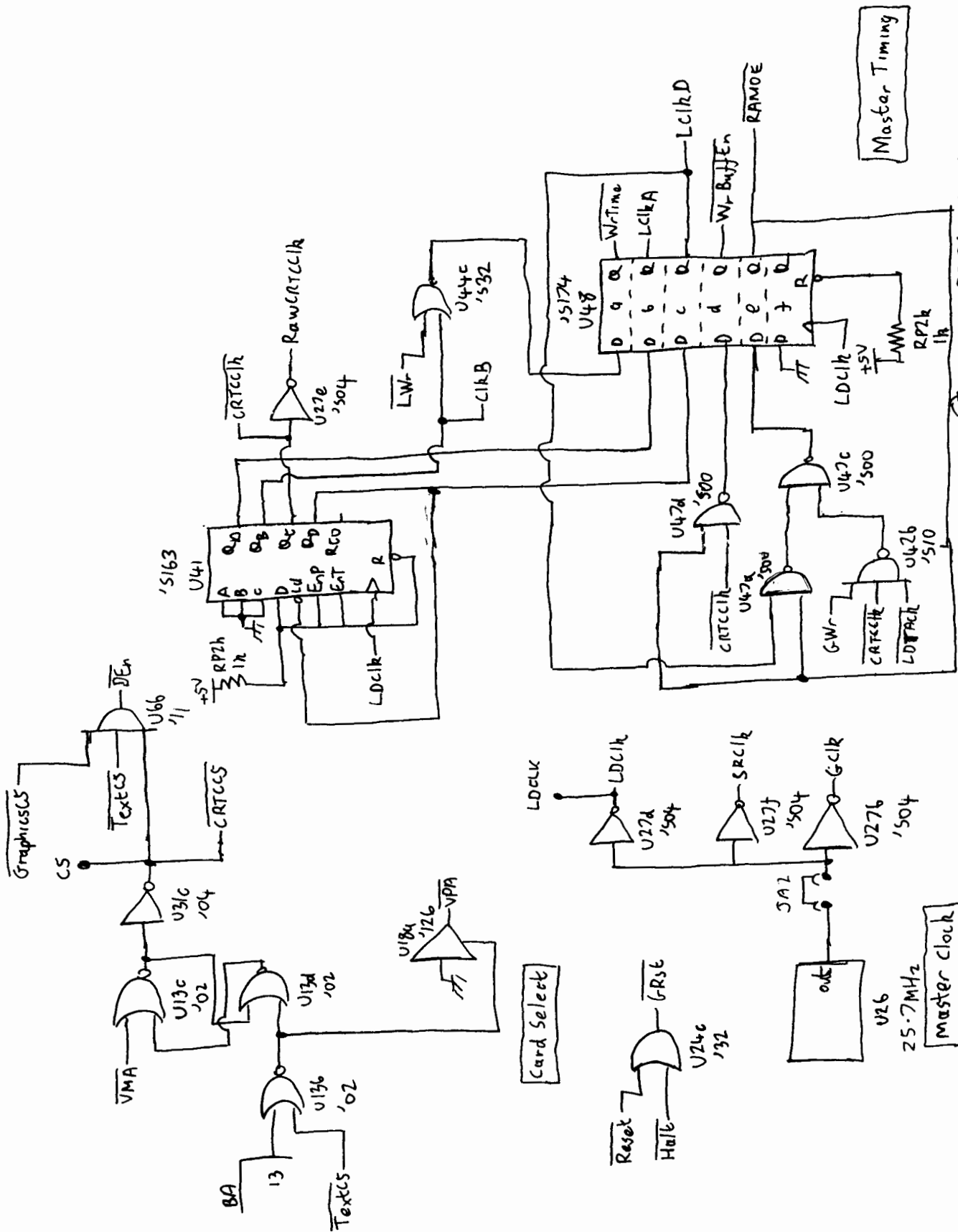




J1
(To Motherboard)
J12 Cable

J2
(To Motherboard)
J13 Cable



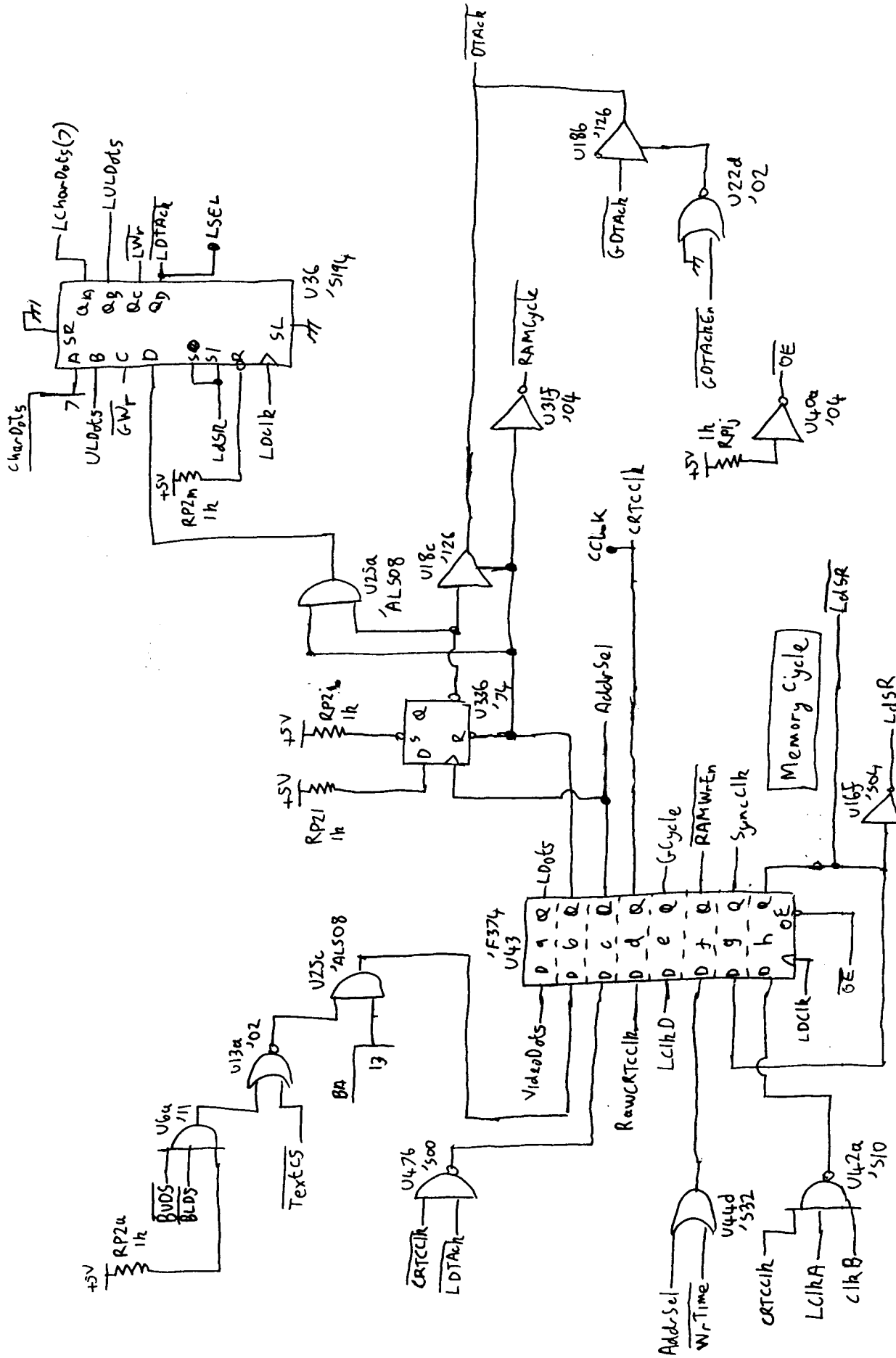


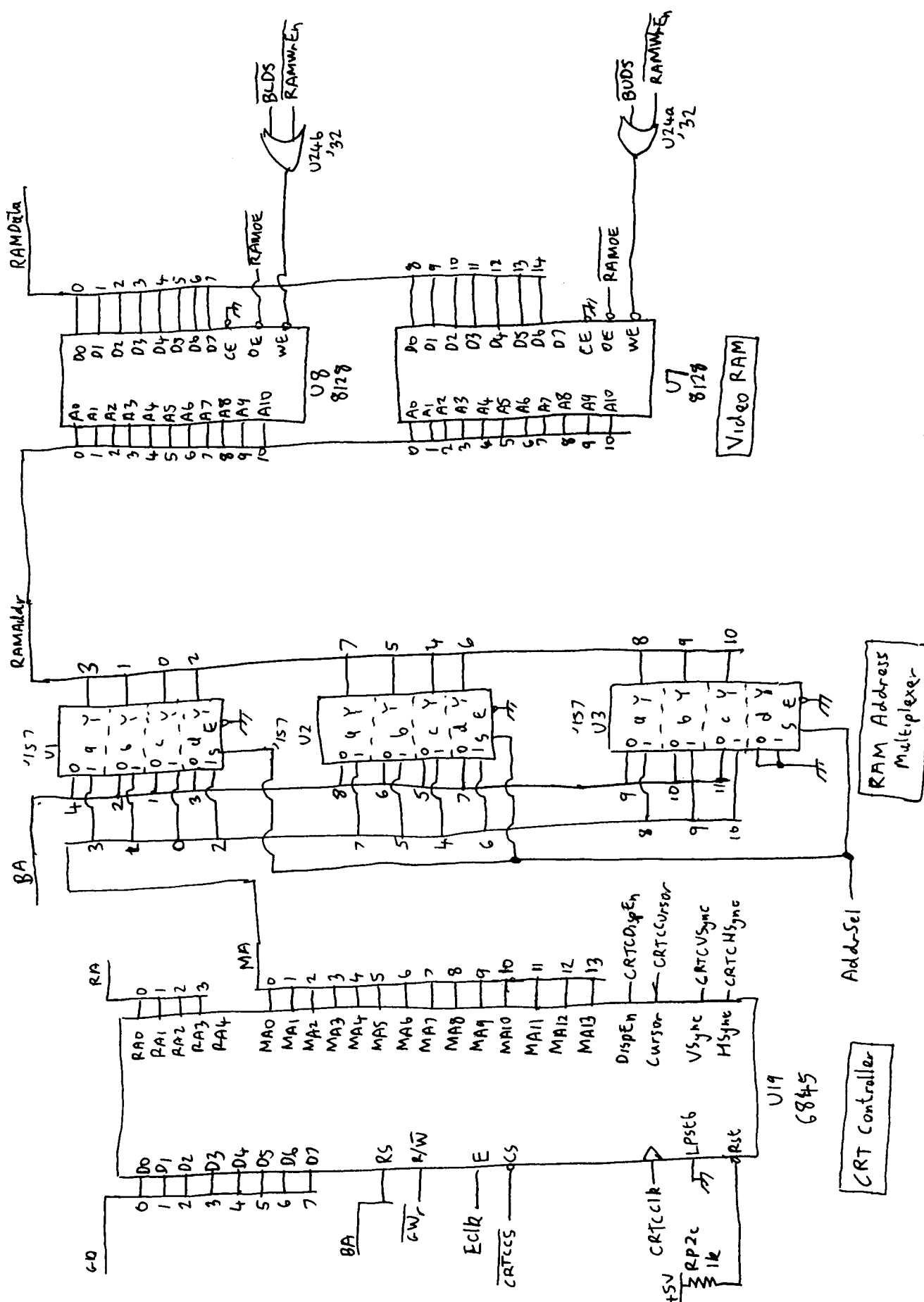
Master Timing

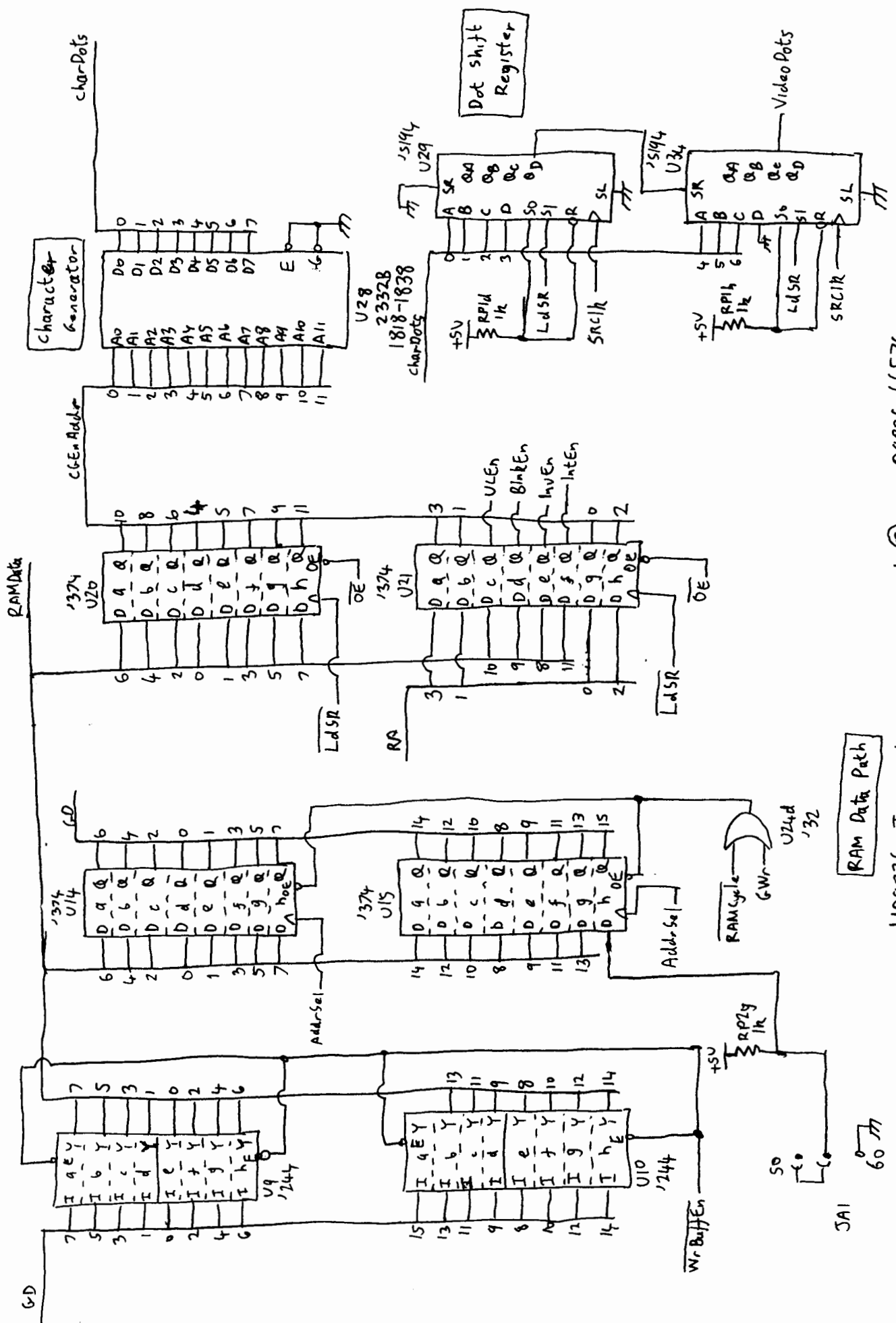
HP9826 Text Video PCB 09826-66576

25.7MHz Master Clock

Card Select





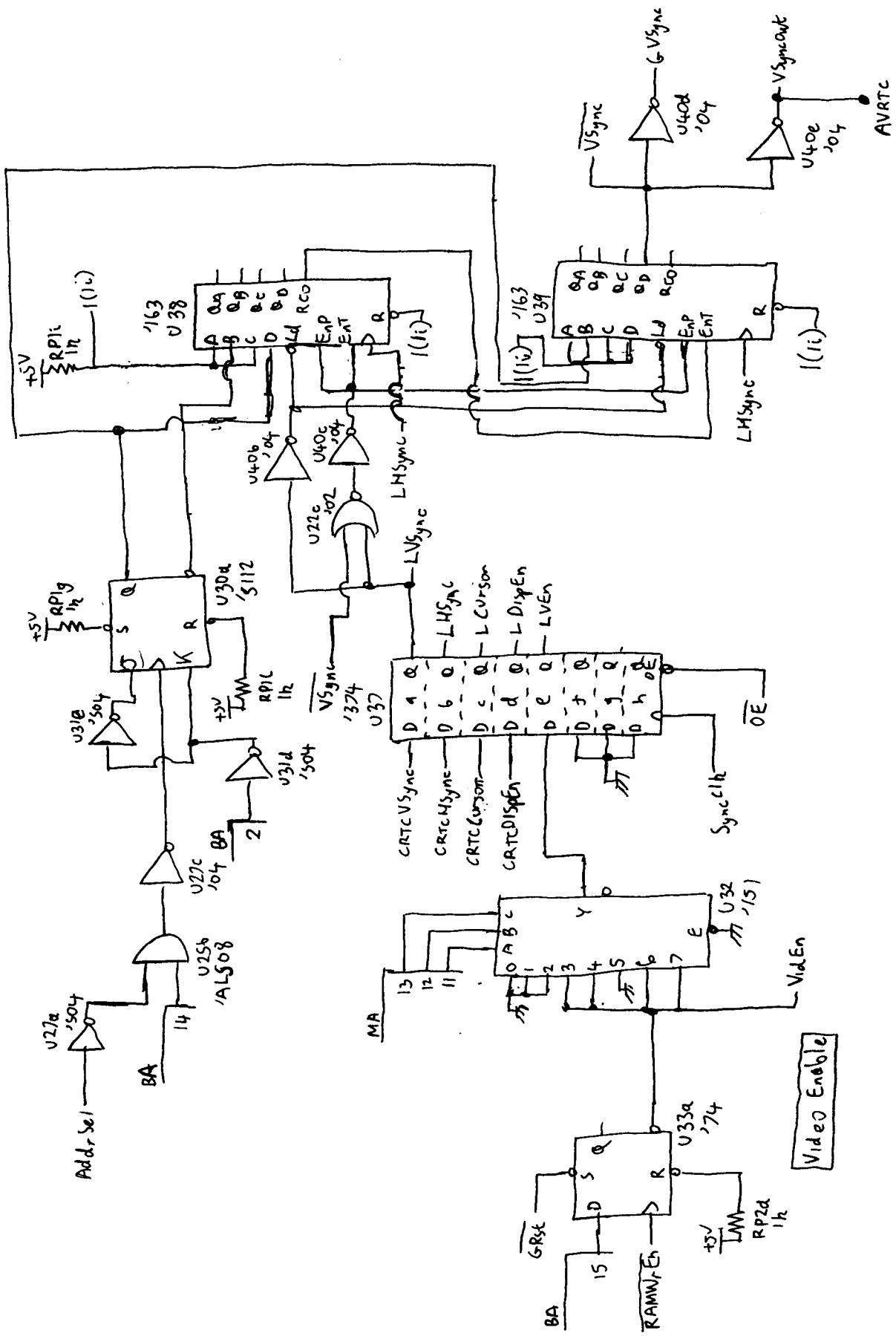


09826-66576

HP9836 Text Video PCB Sheet 5

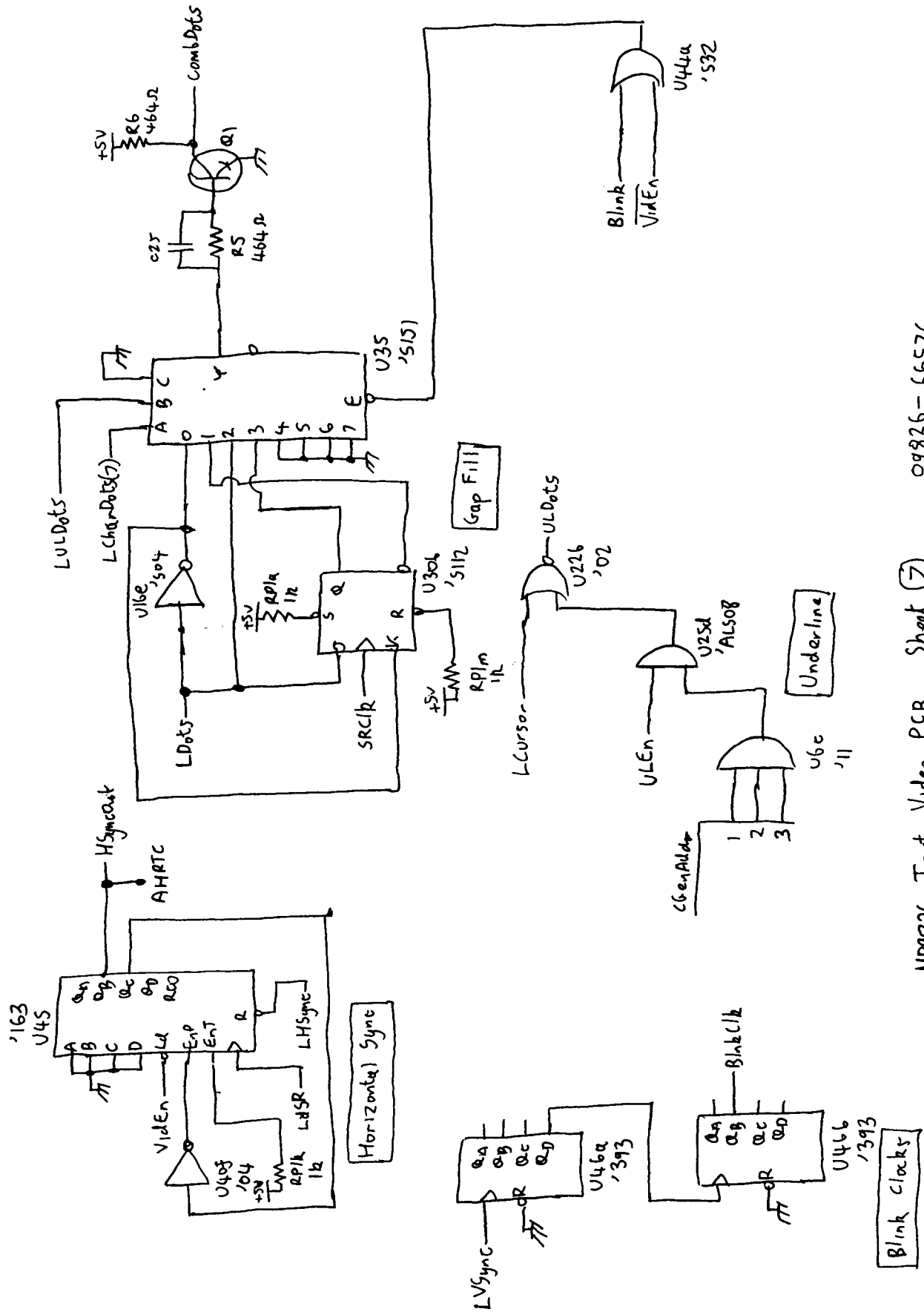
RAM Data Path

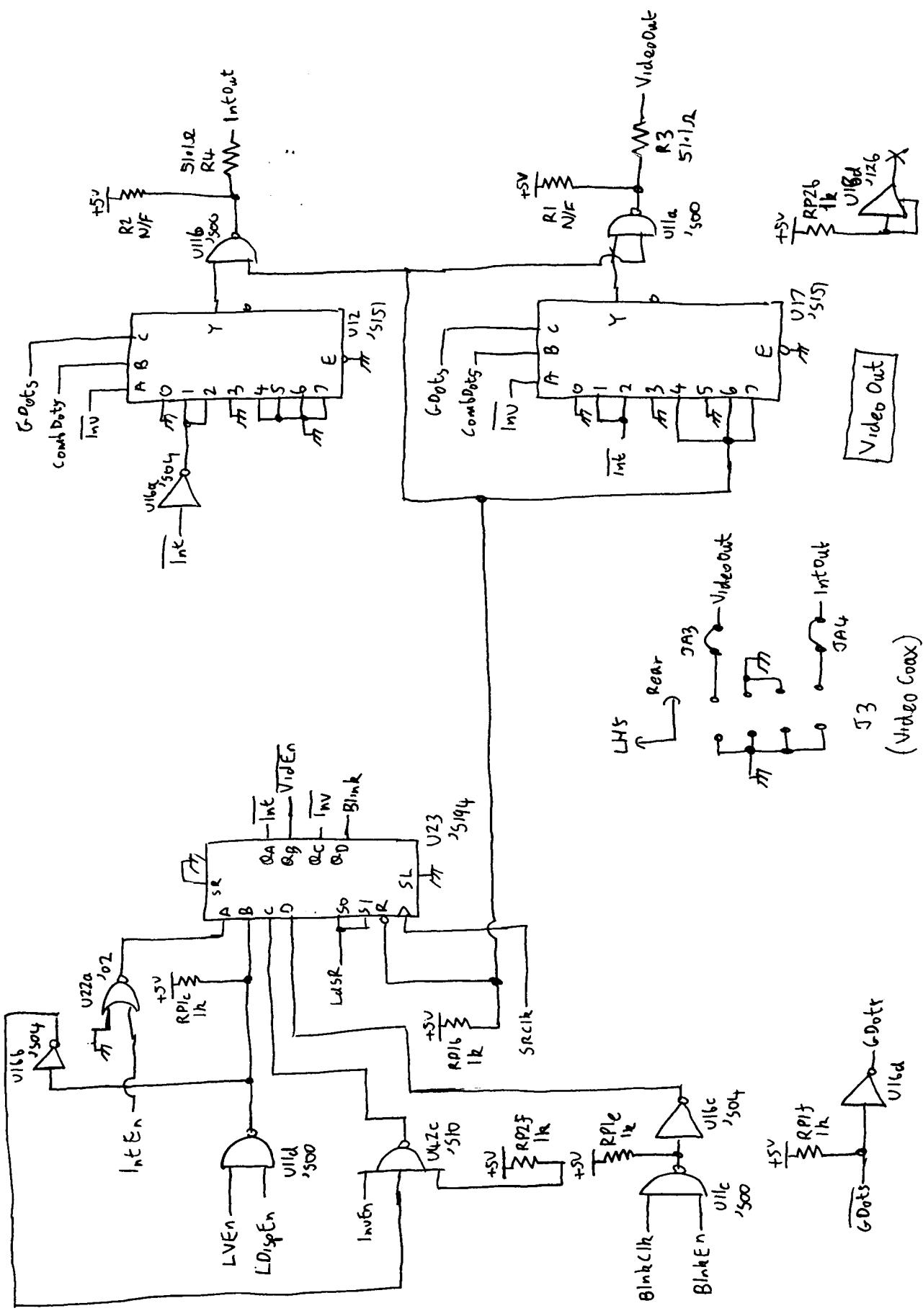
JAI



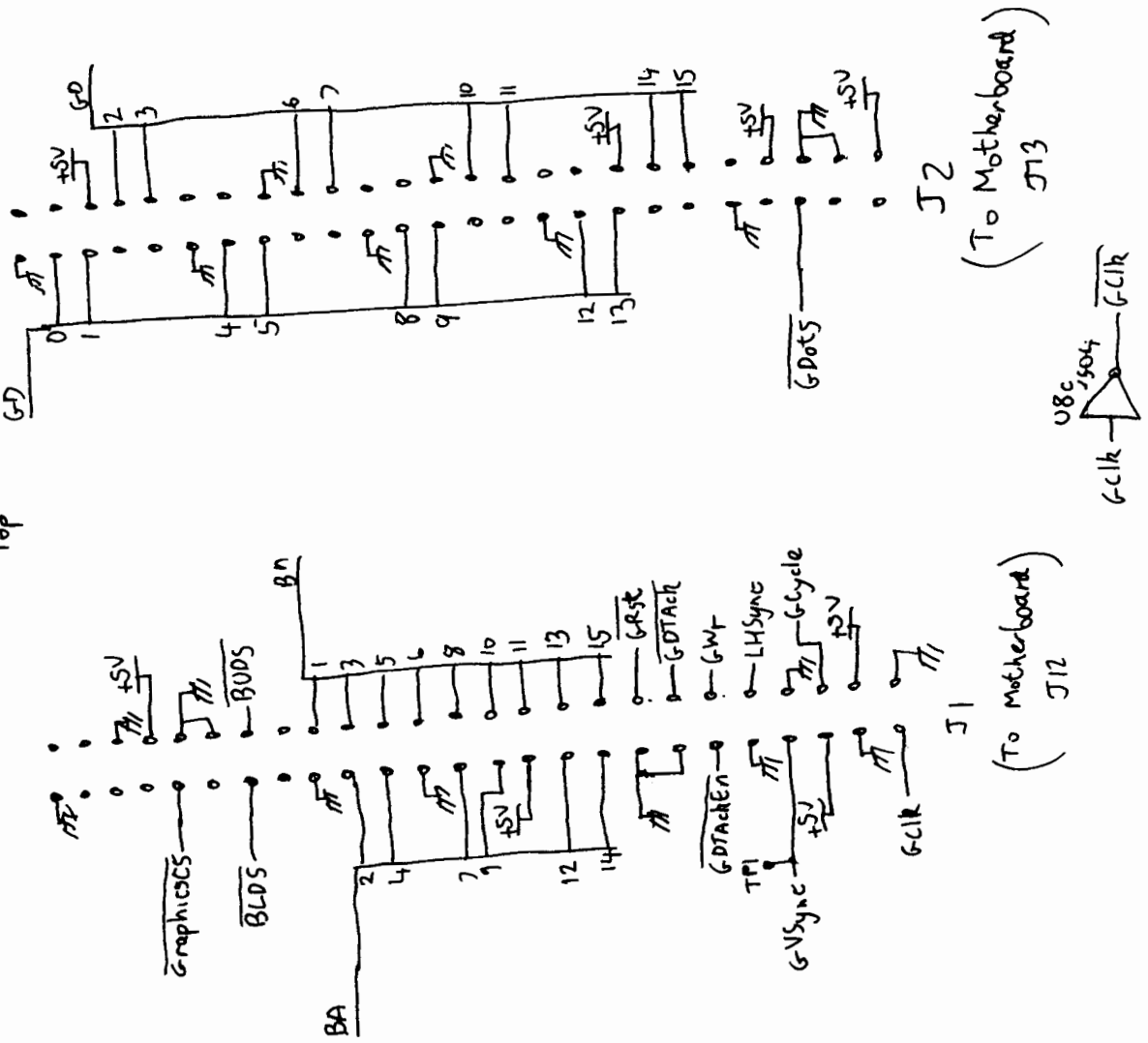
Vertical Sync

Video Enable

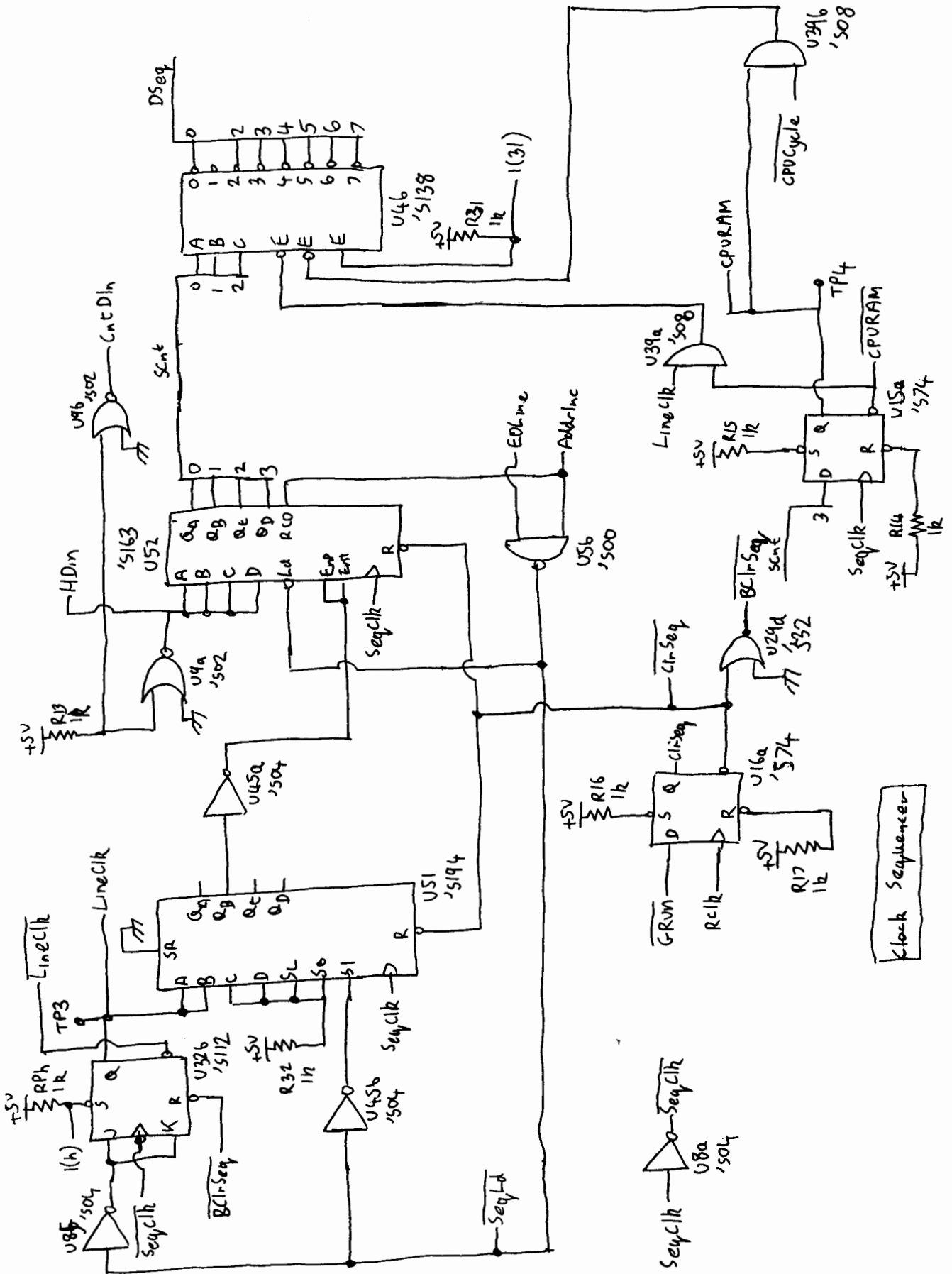


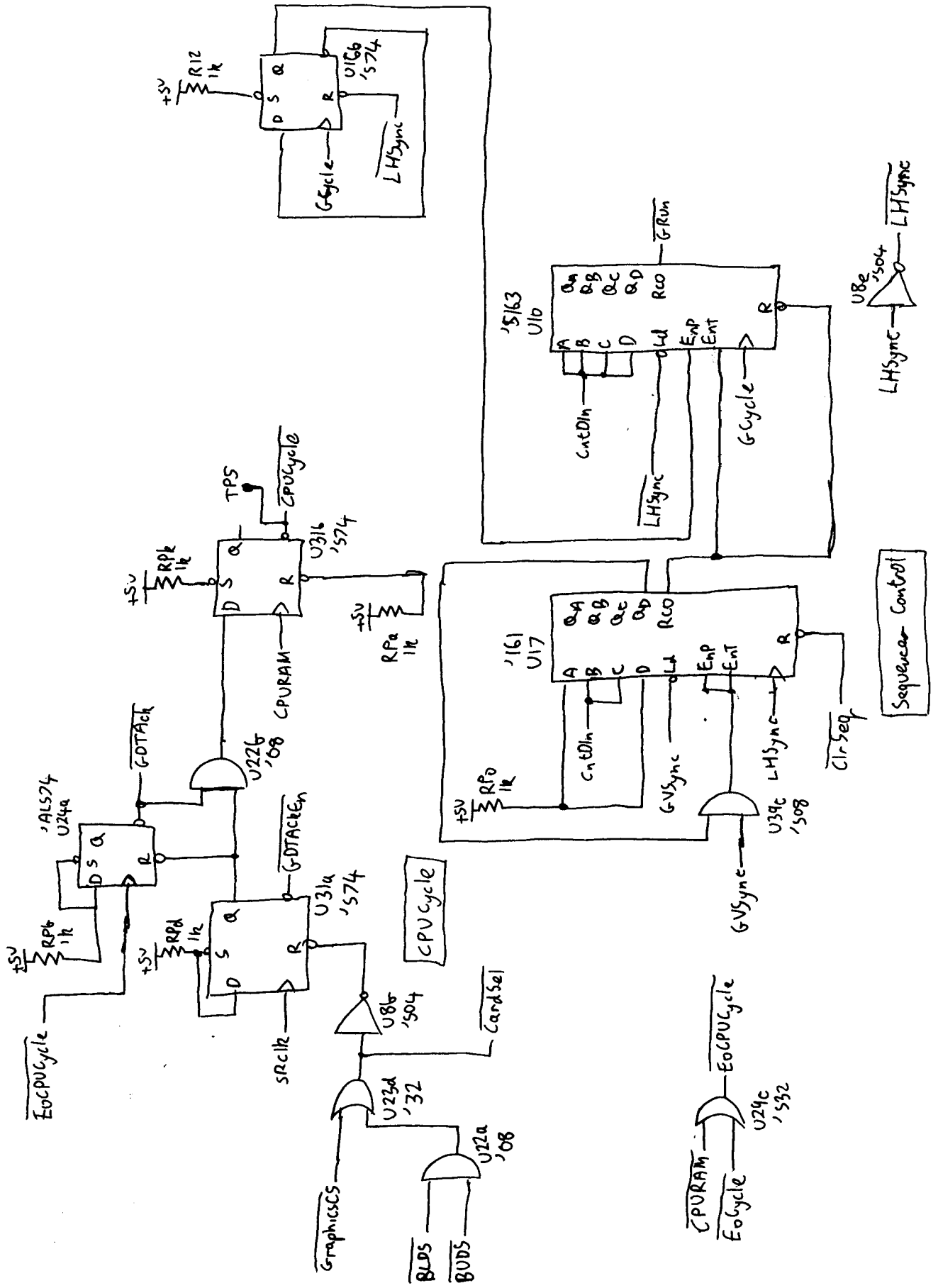


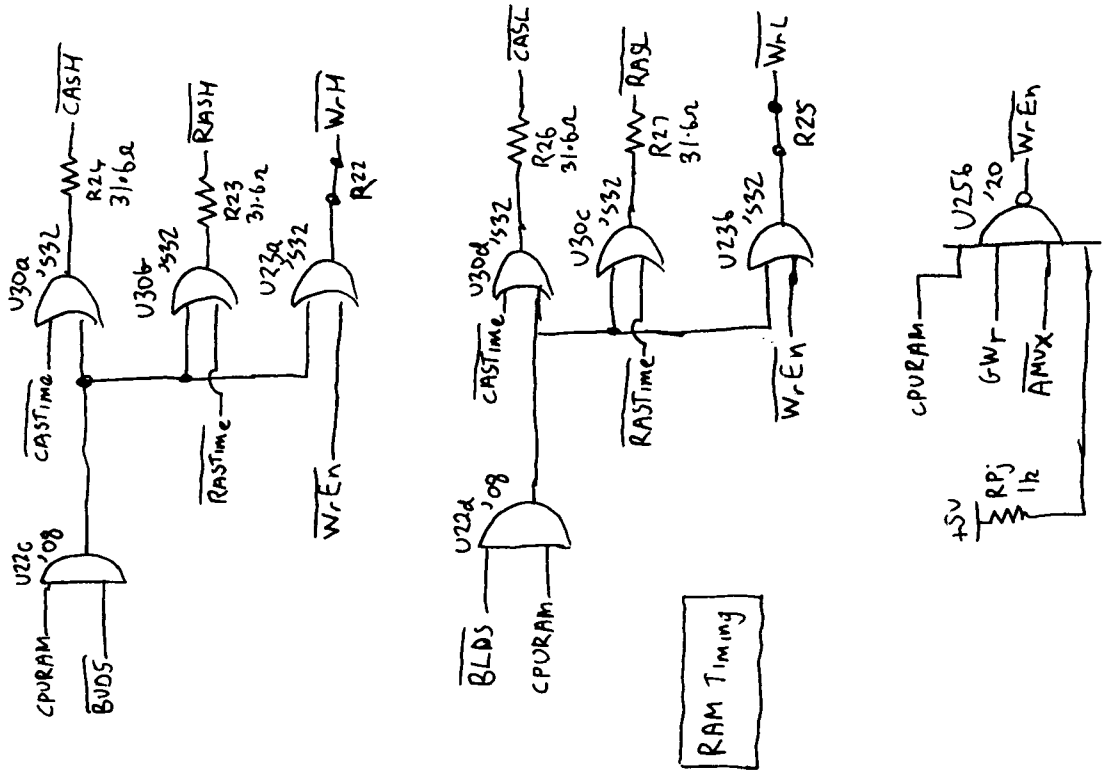
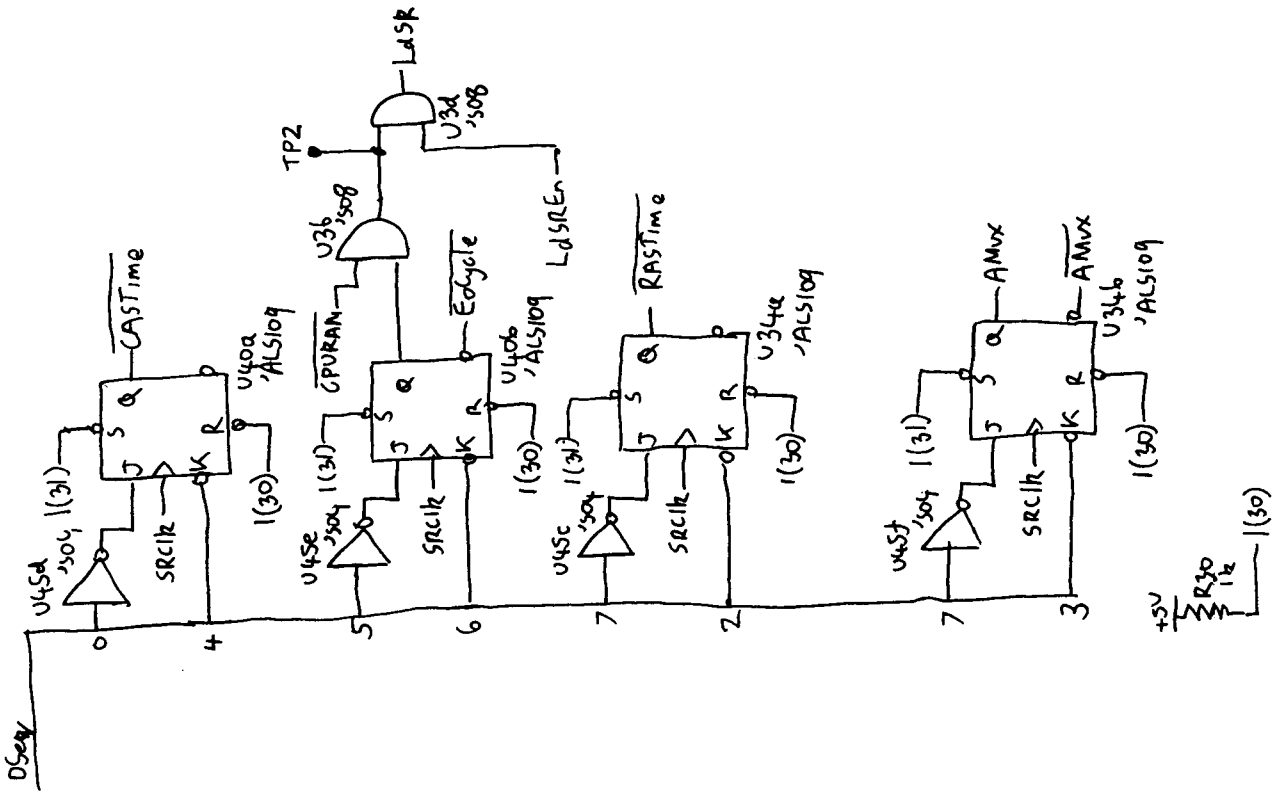
LHS
 Top ←



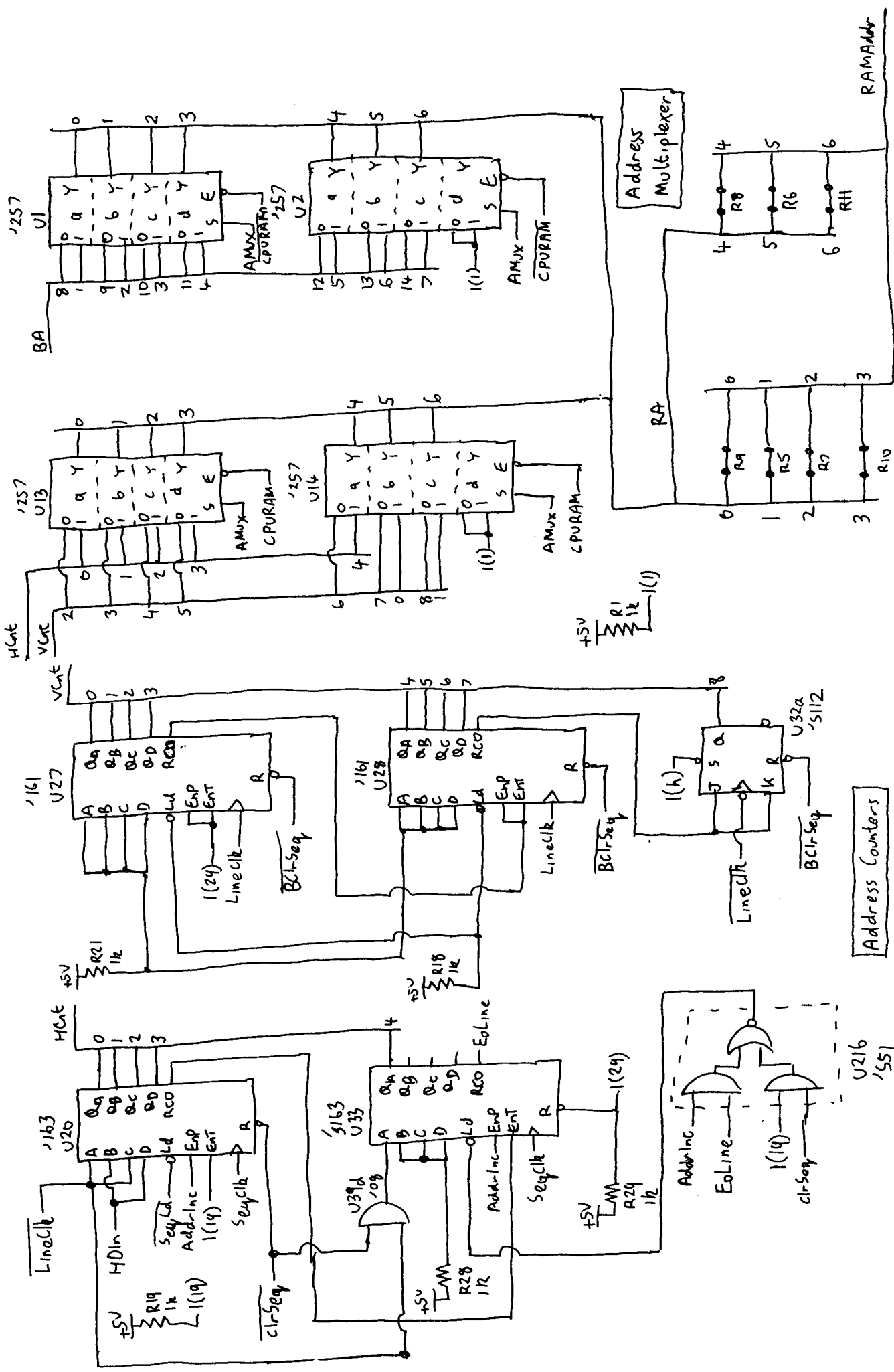
Master Clock

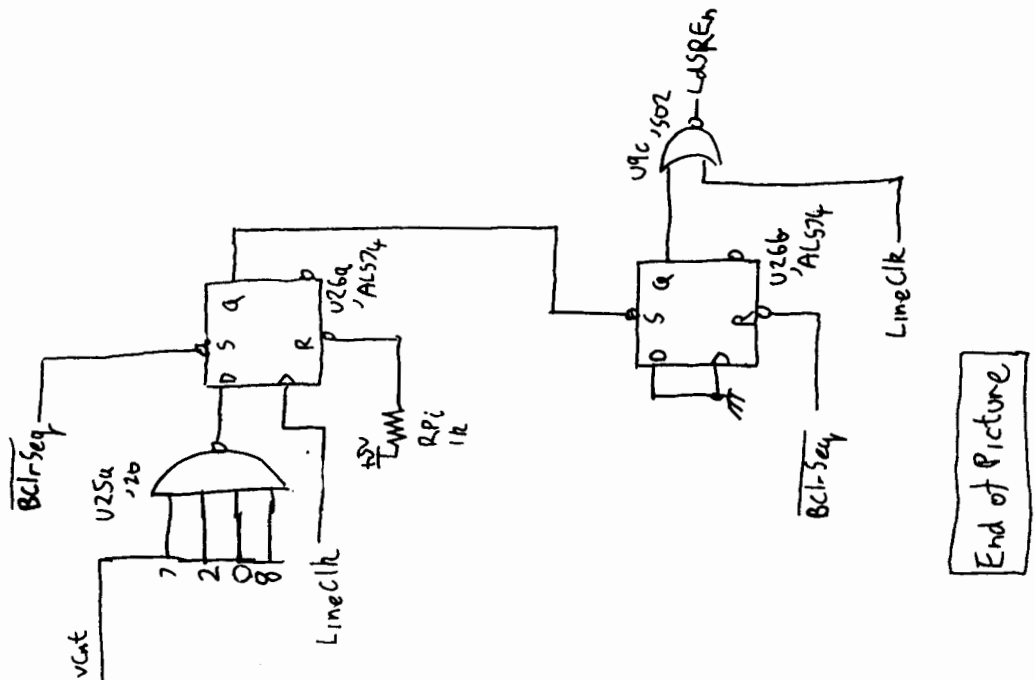
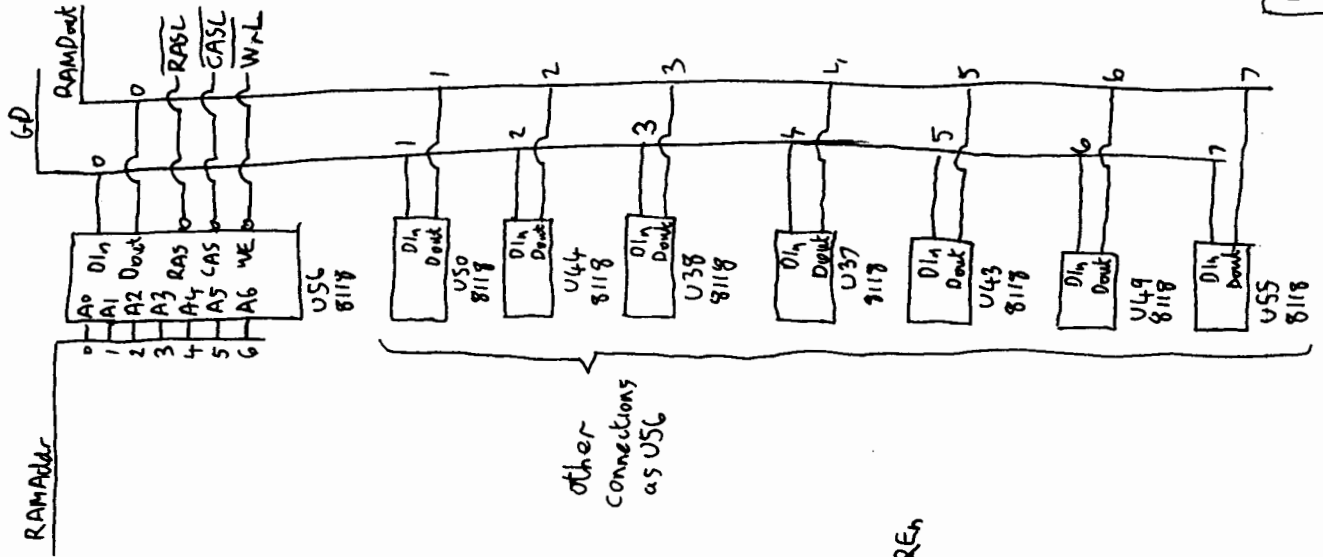
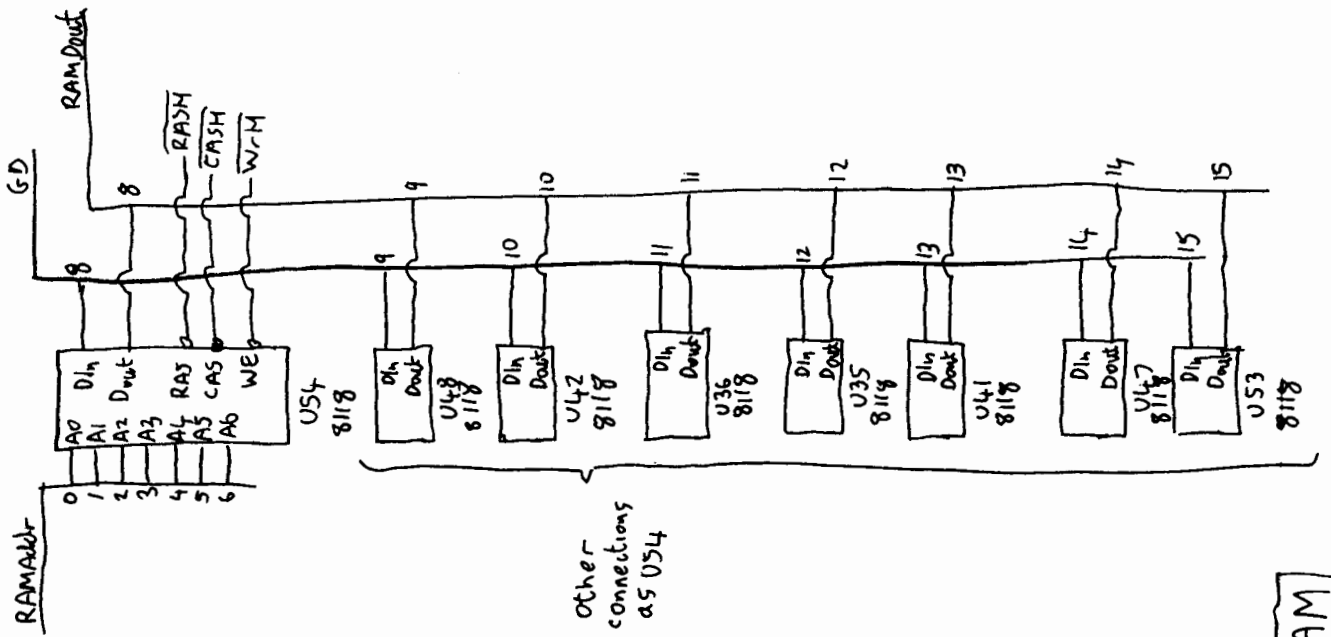


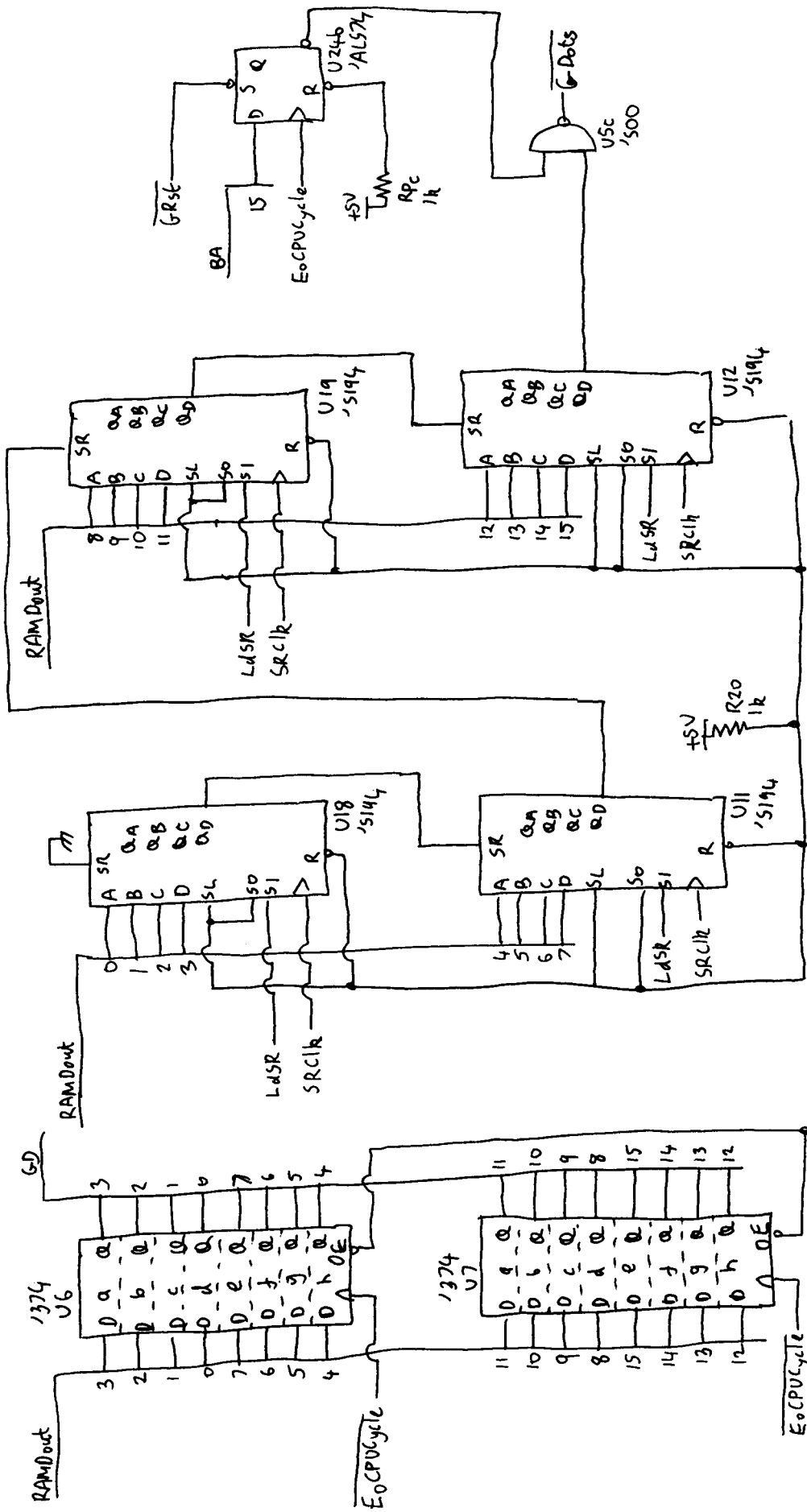




RAM Timing

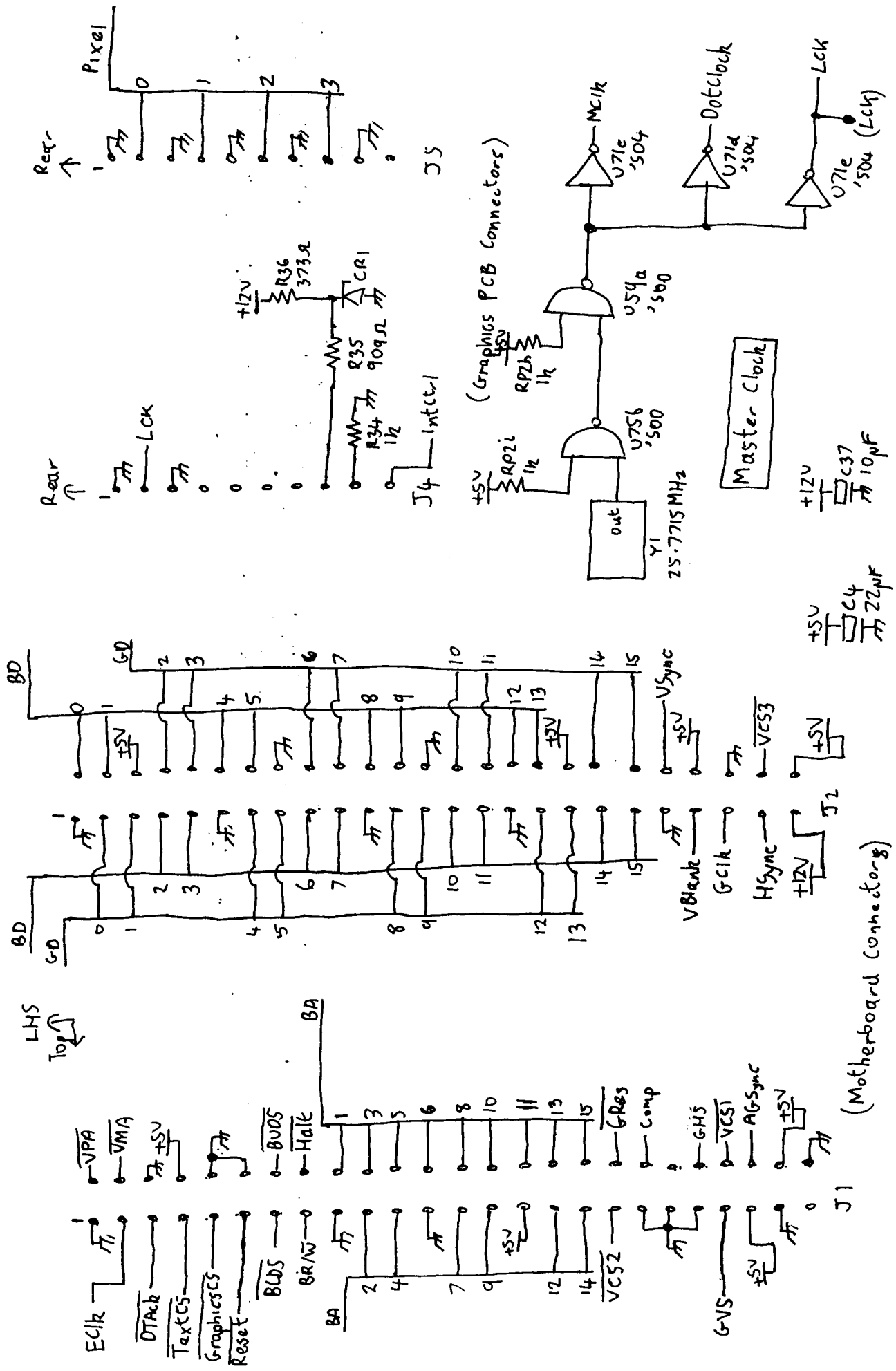


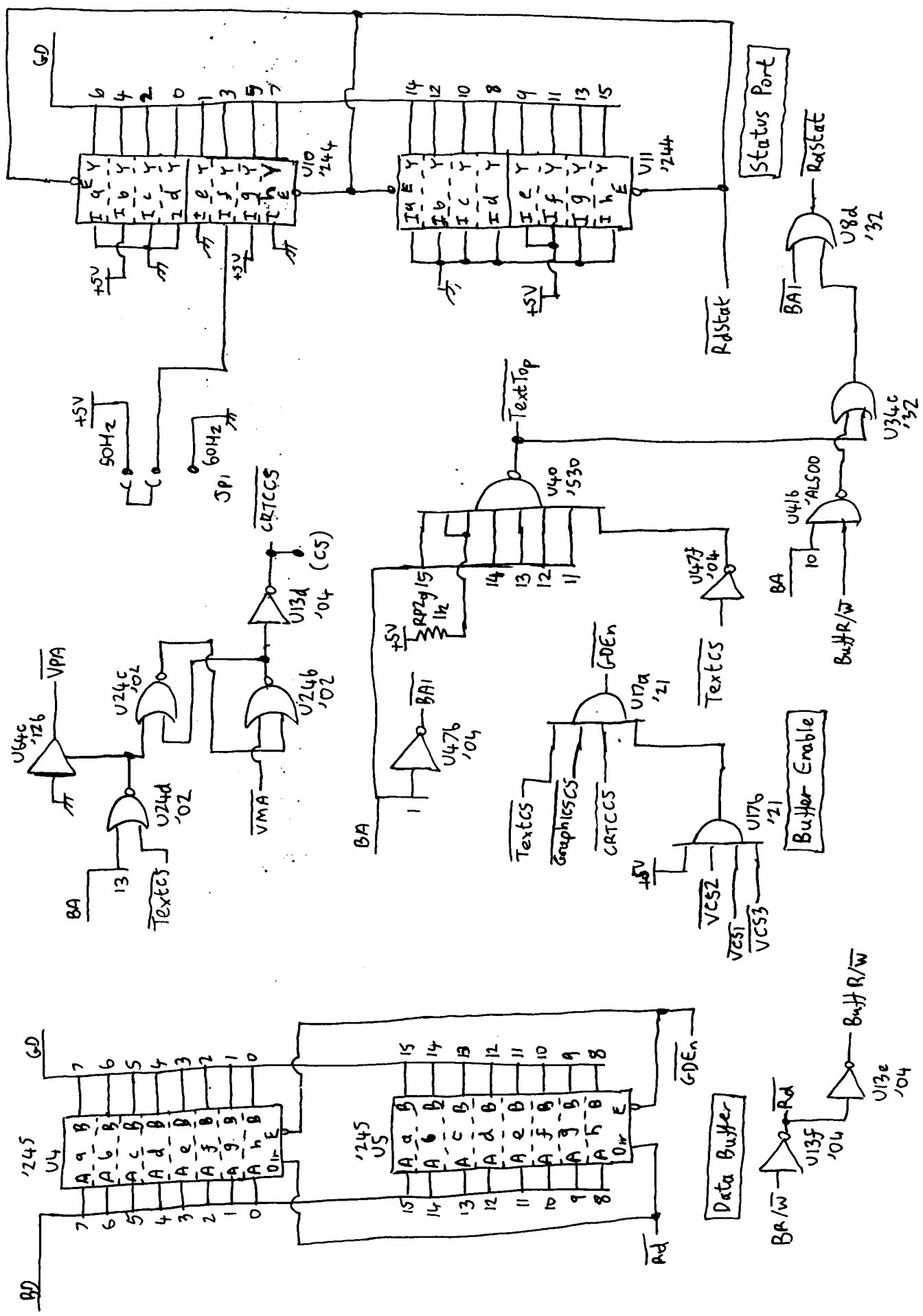


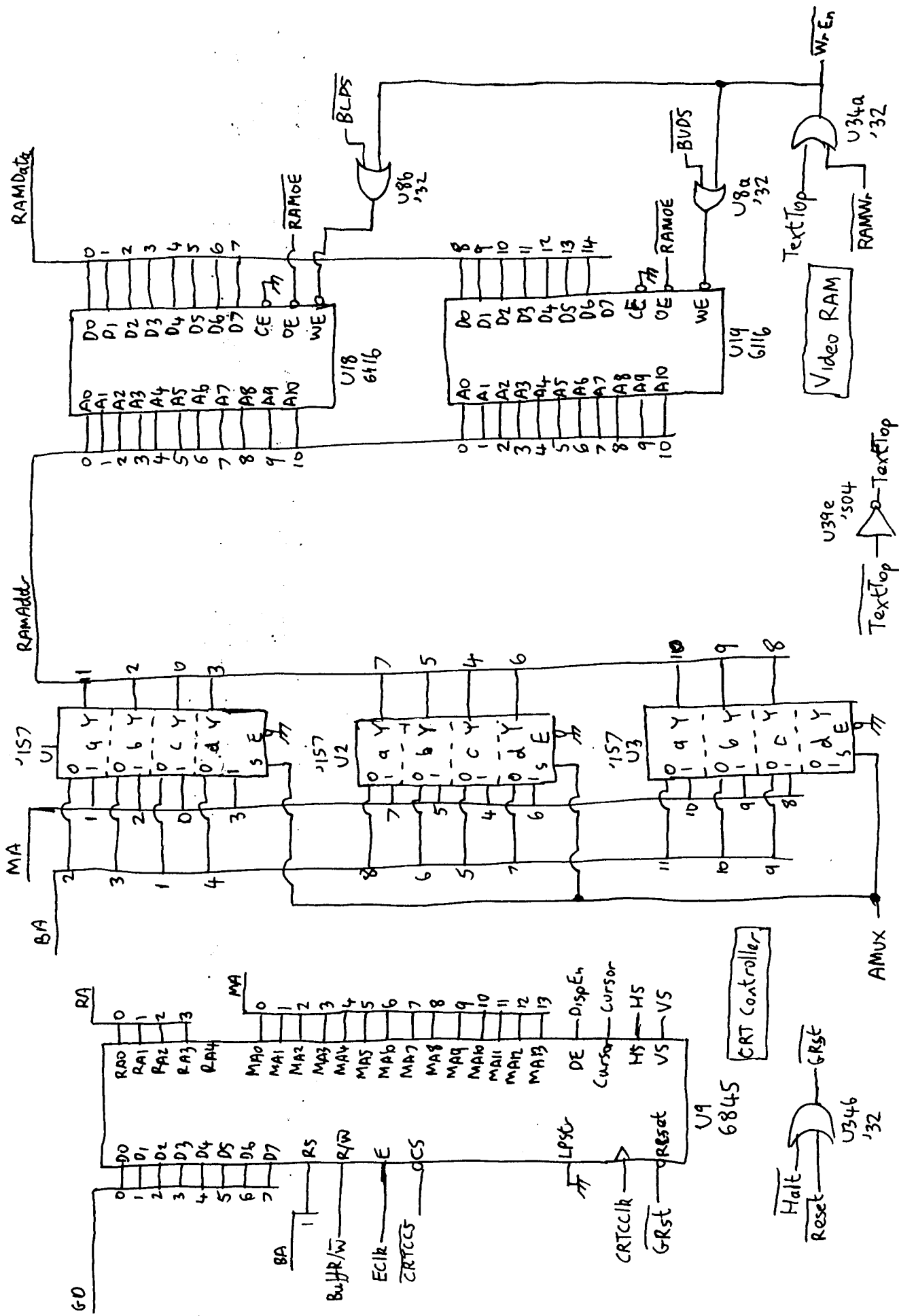


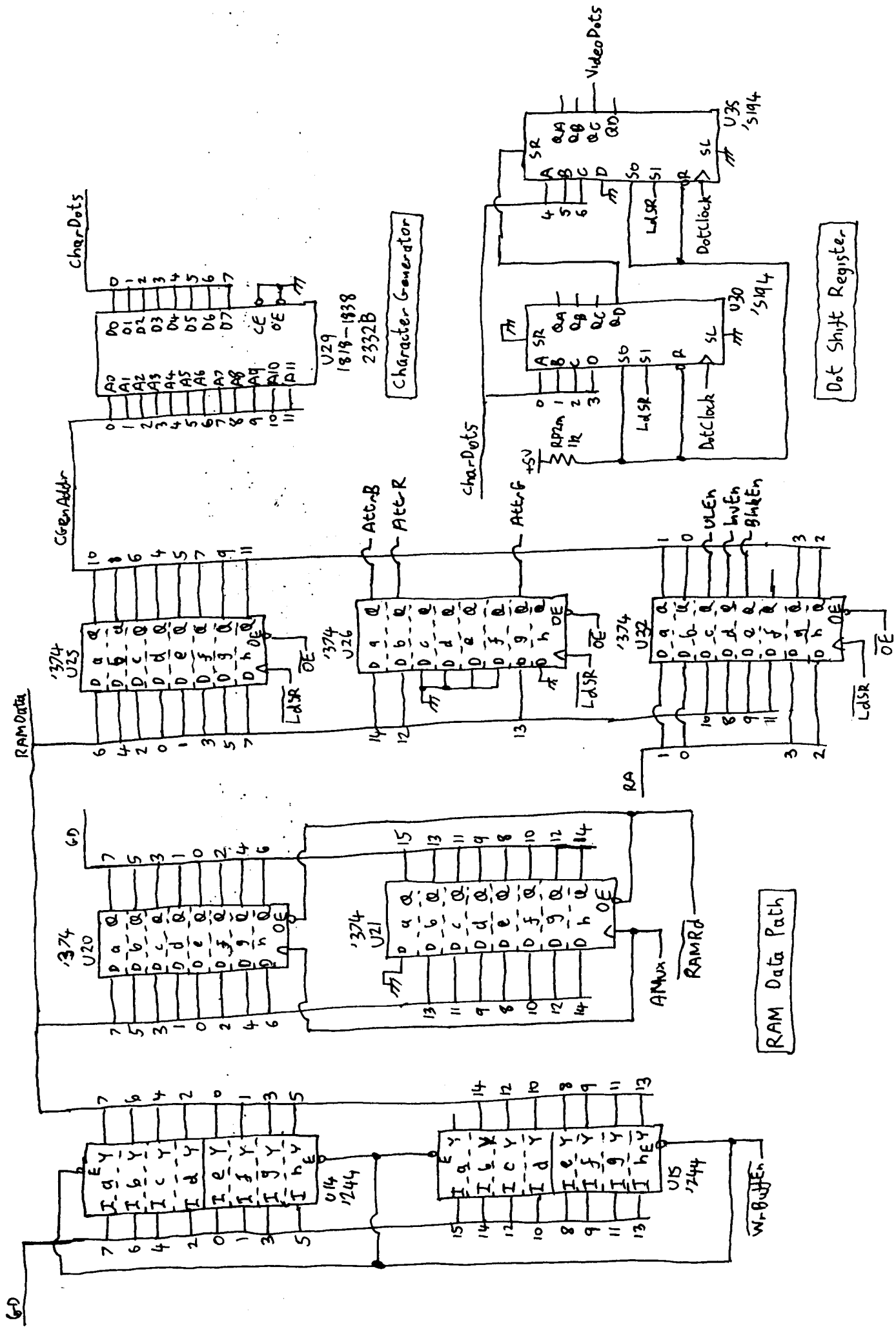
Dot Shift Register

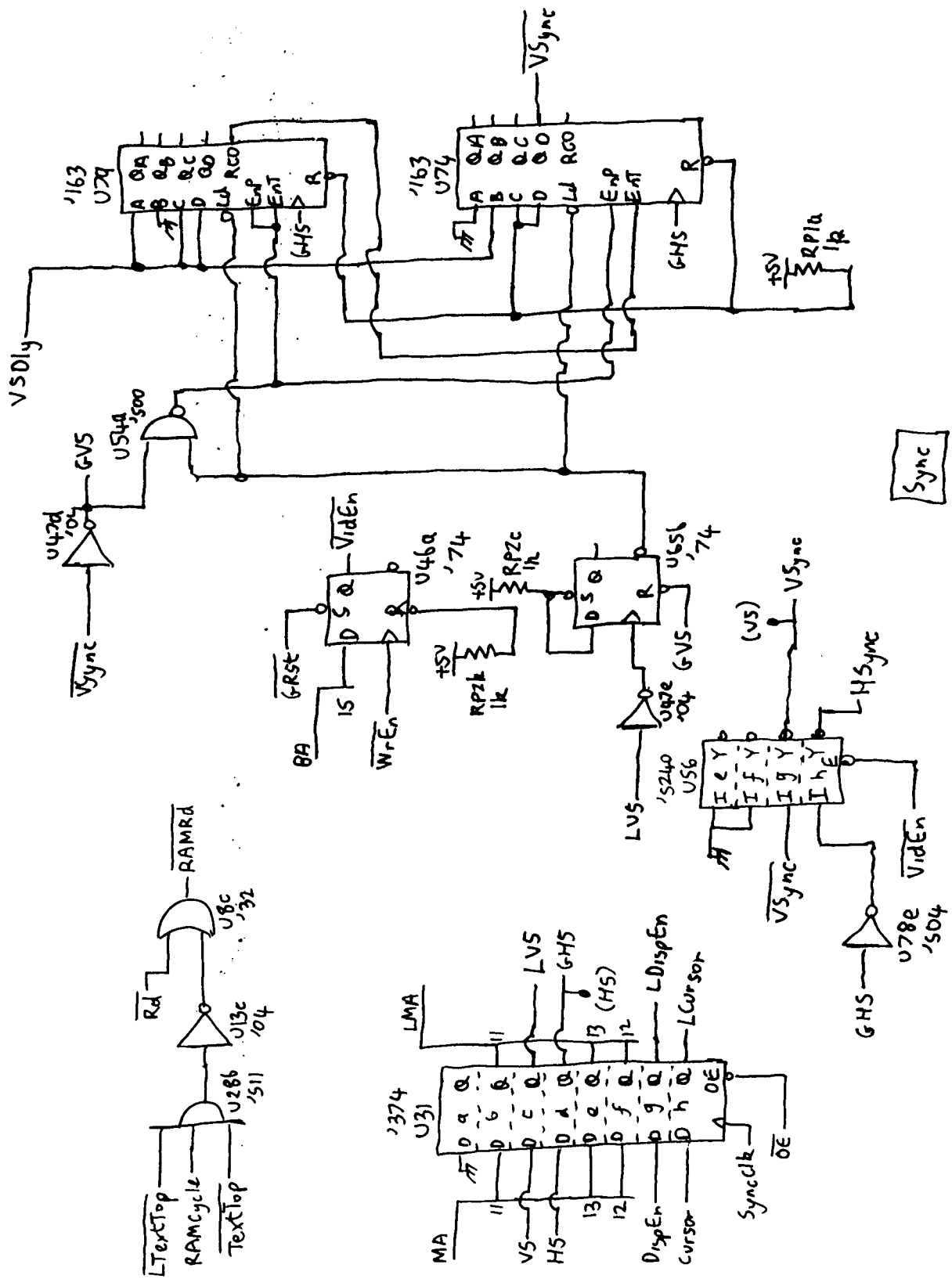
RAM Read Register

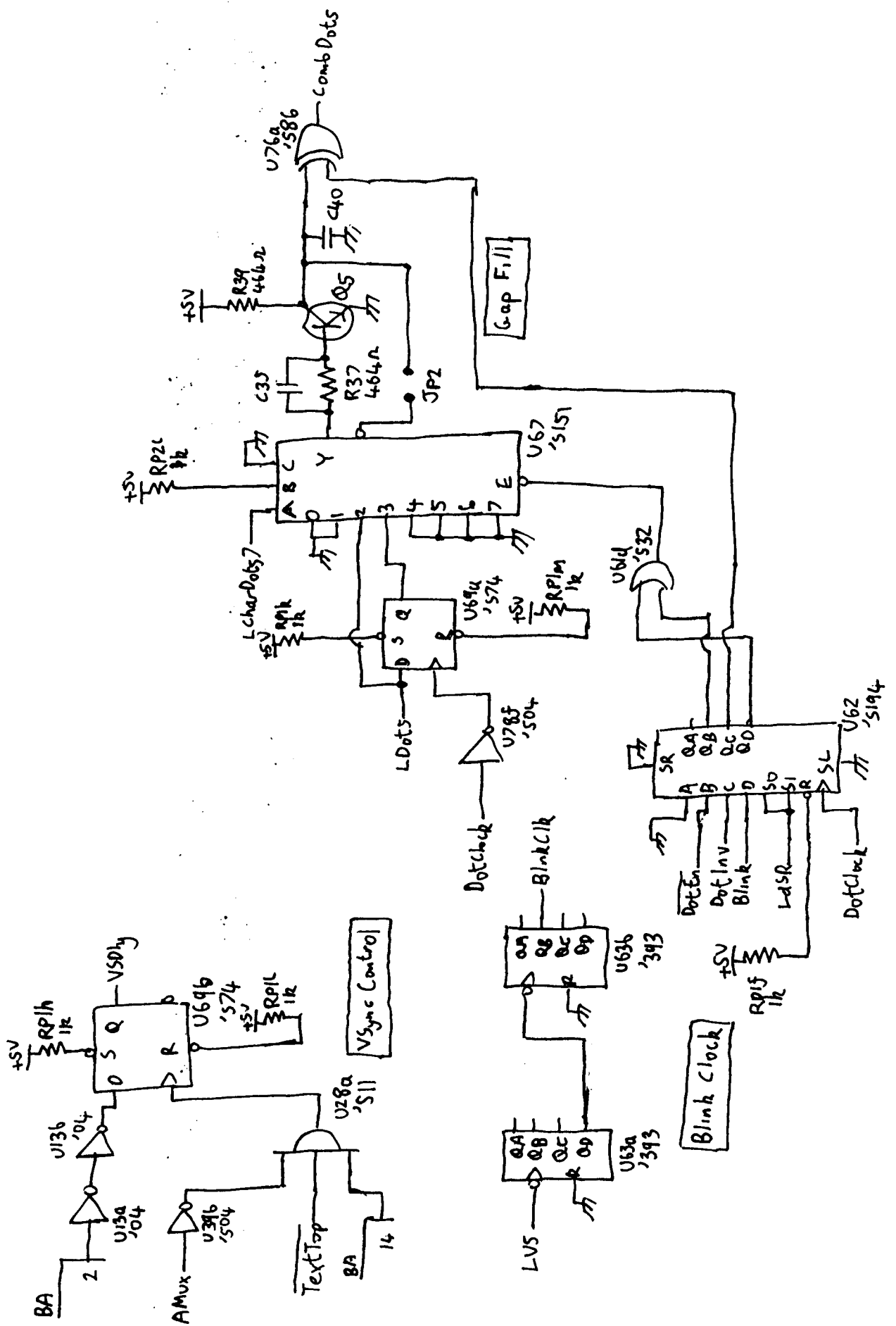


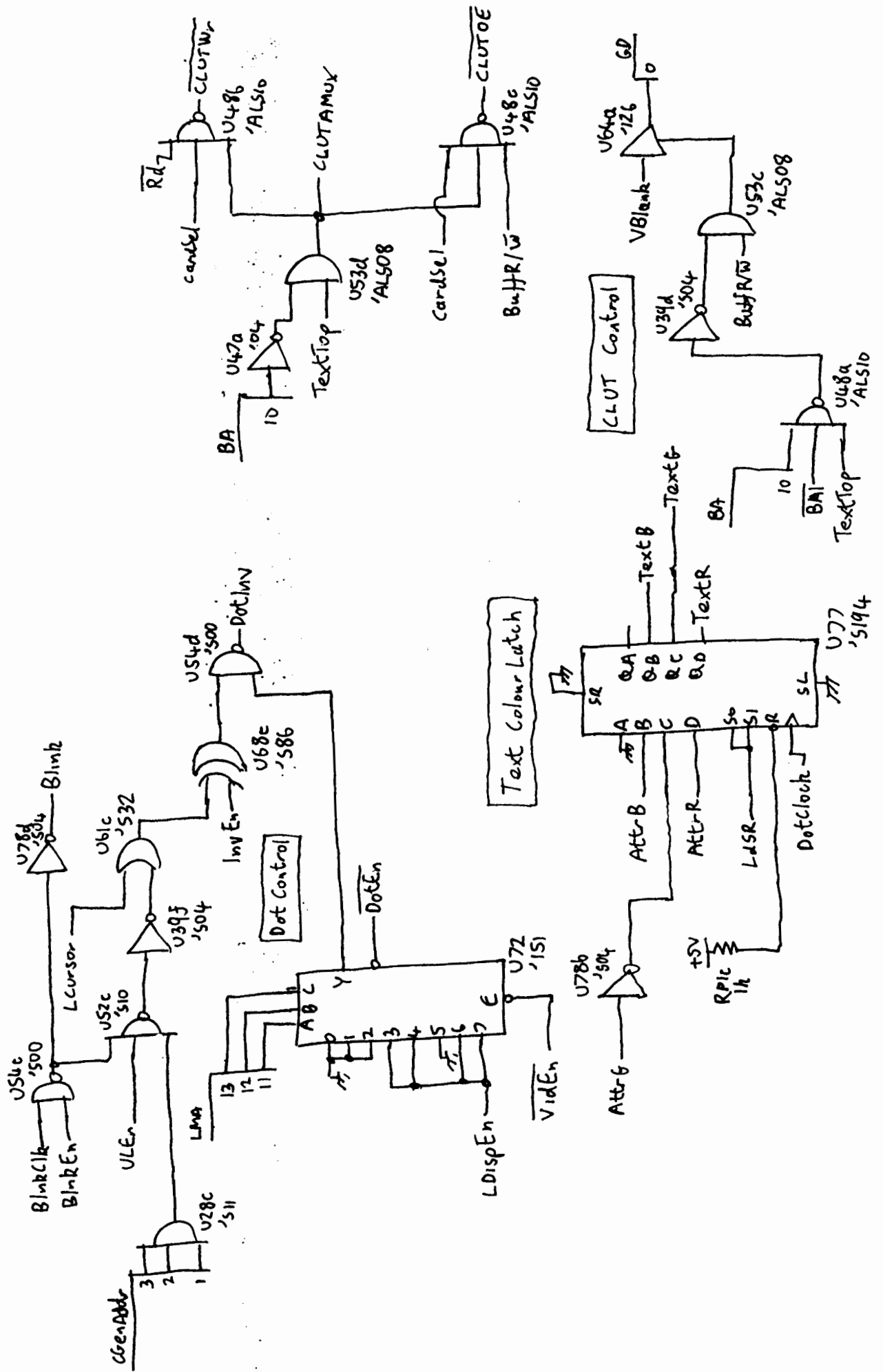


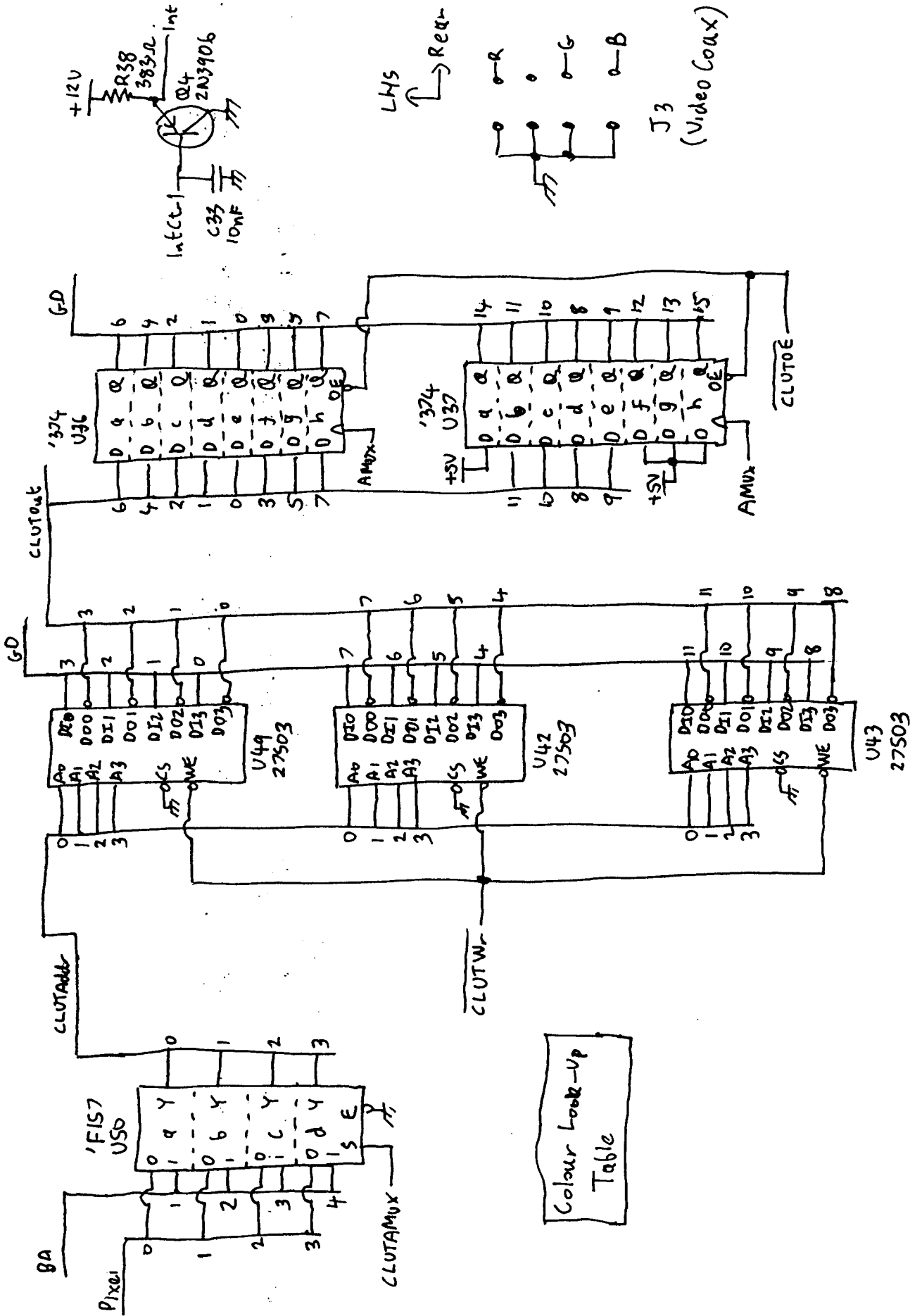


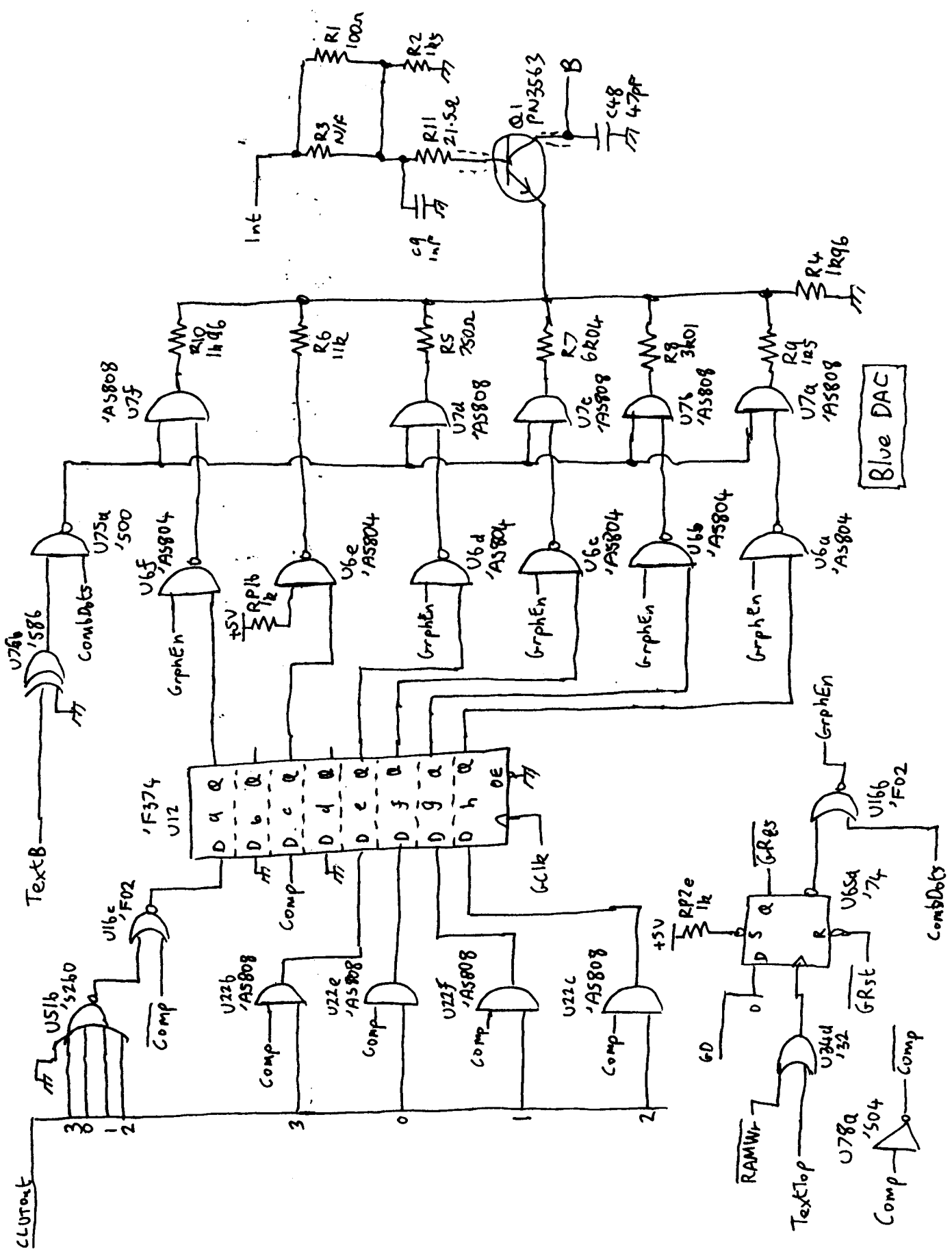


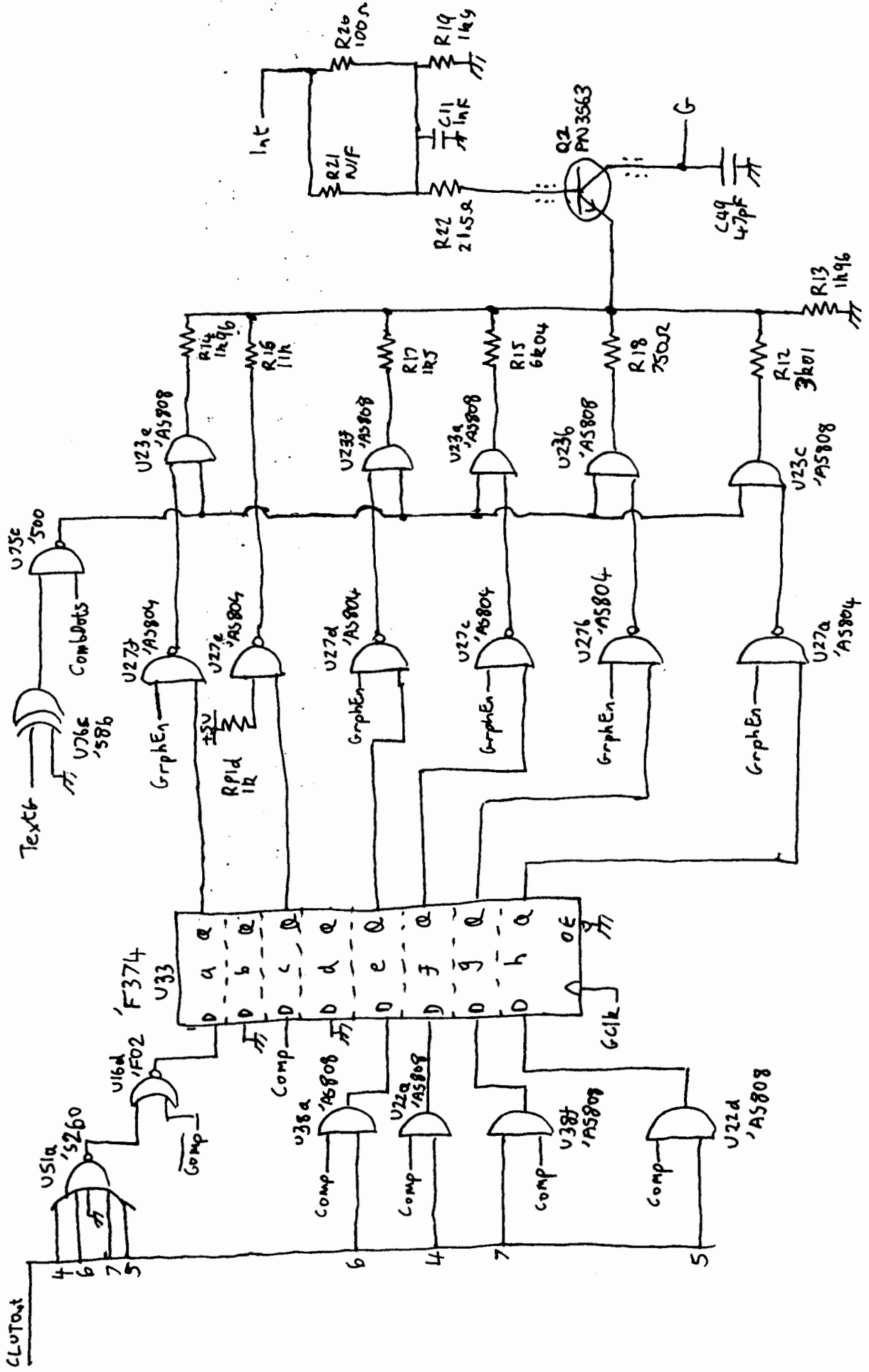




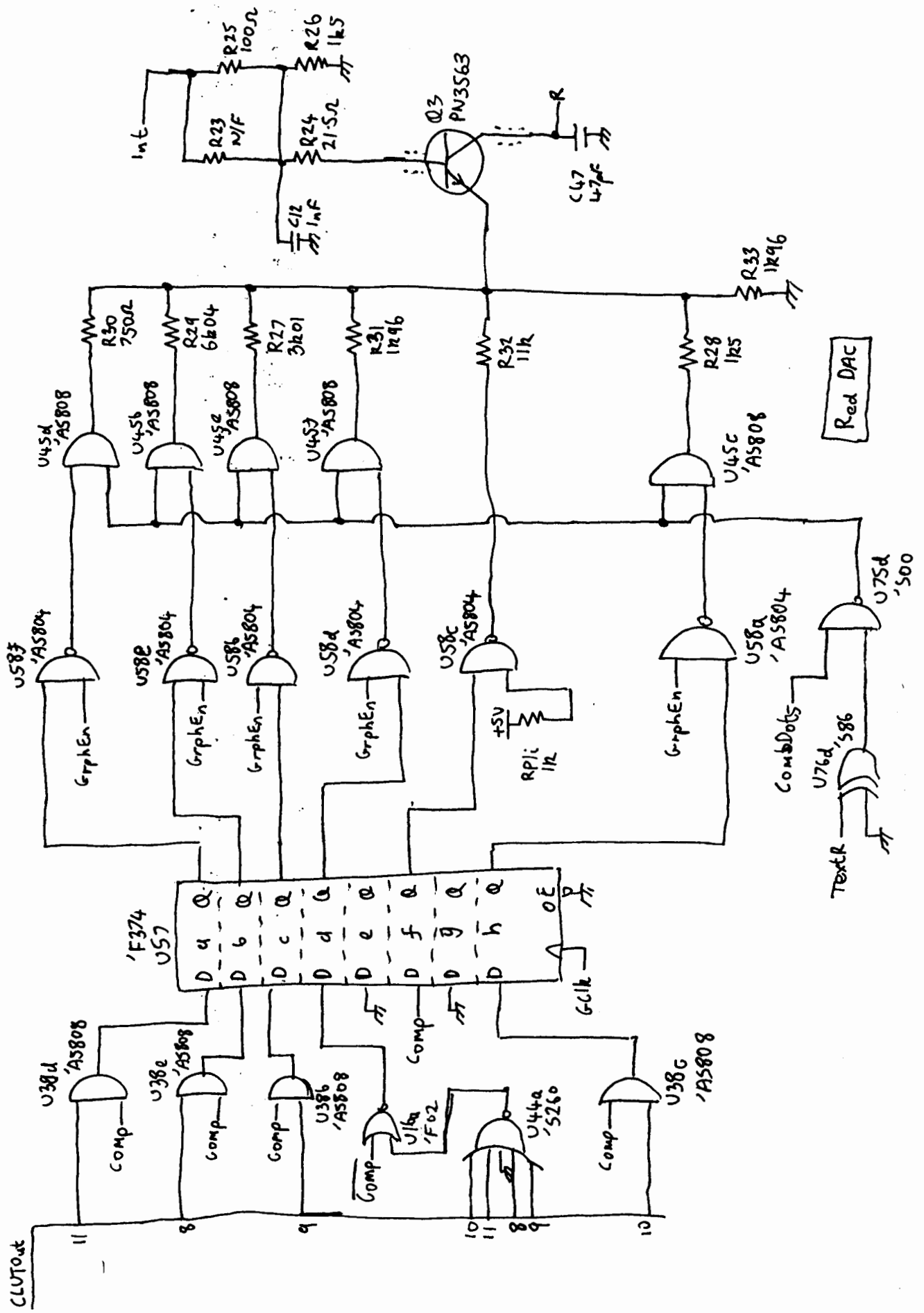


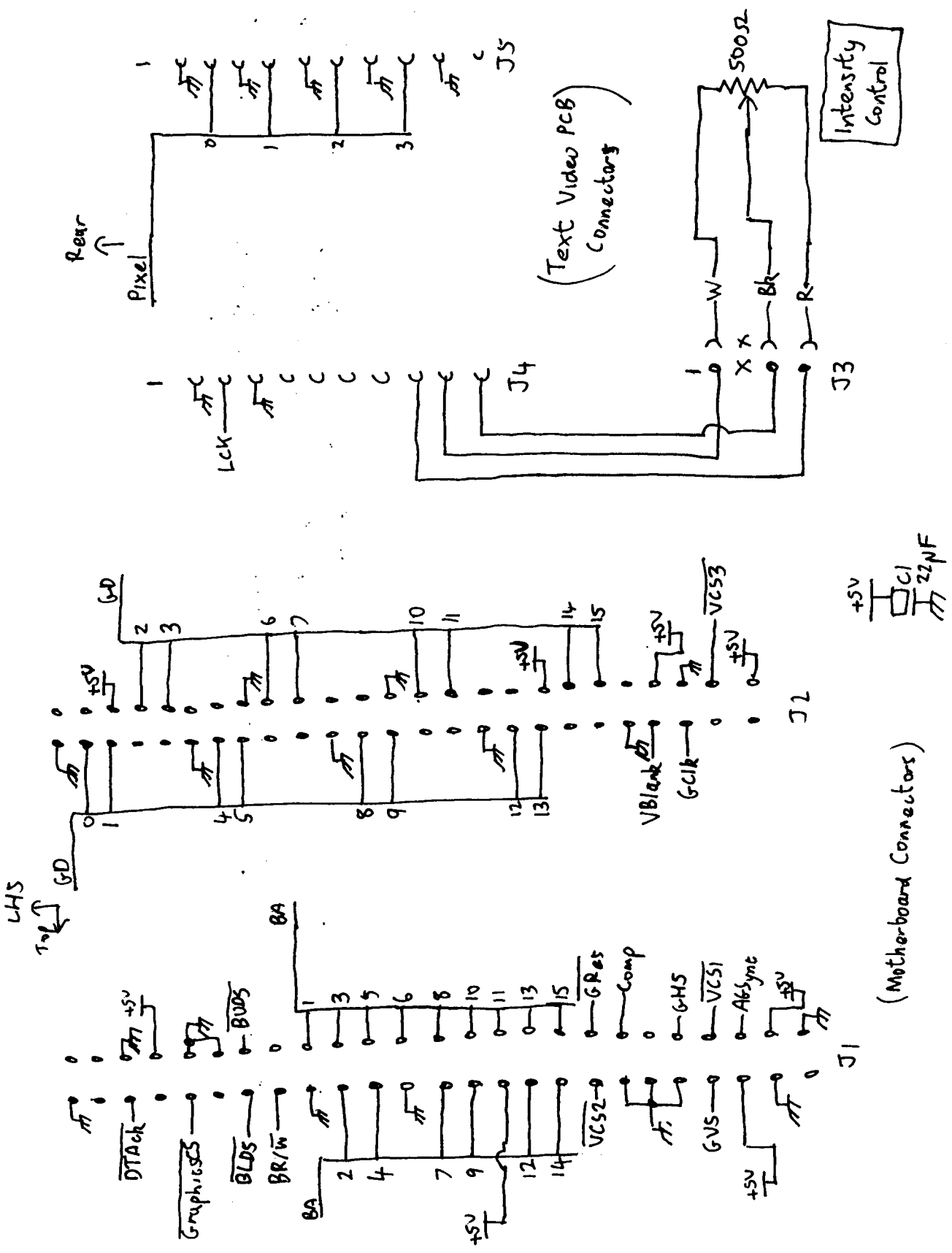






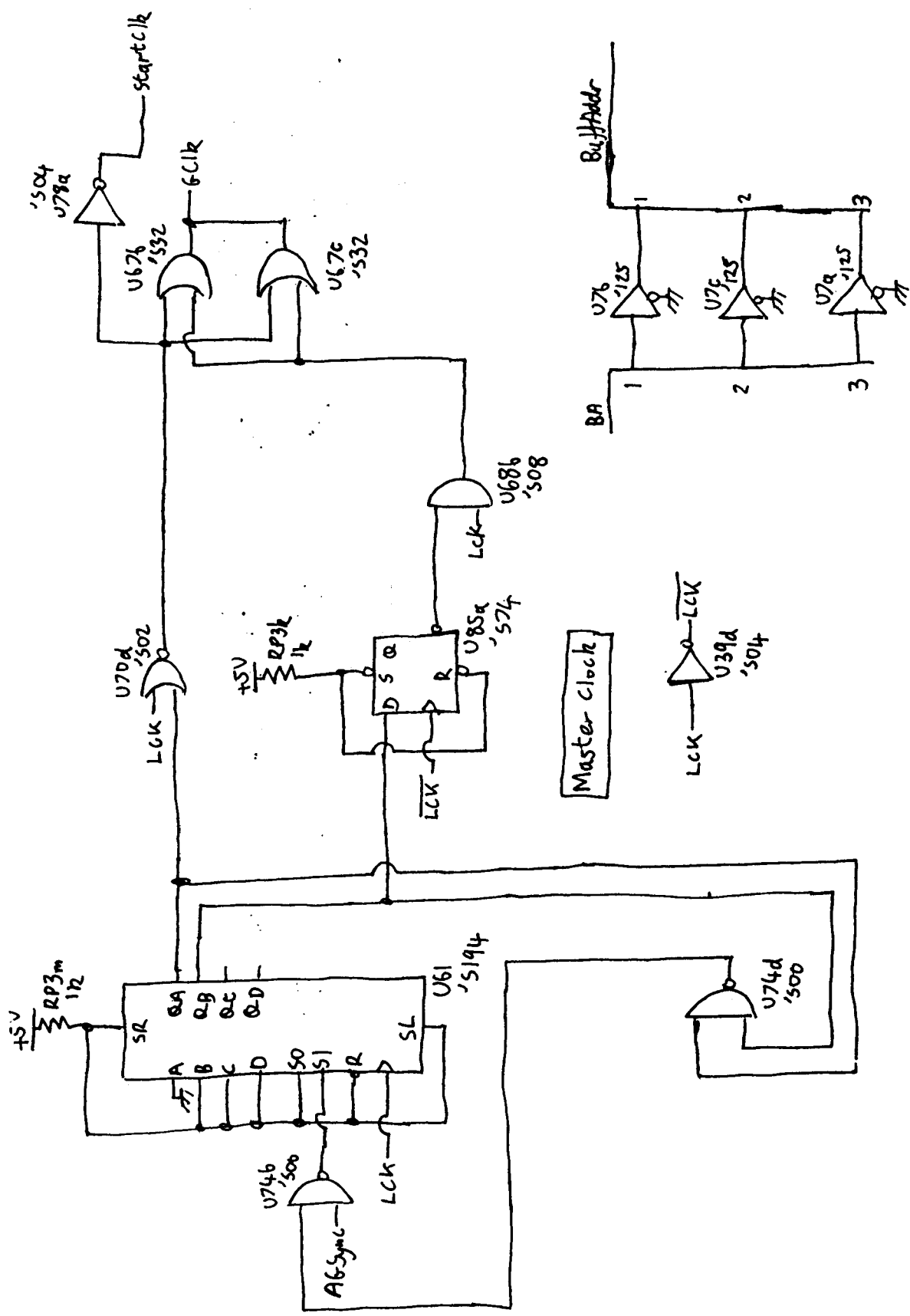
Green DAC





(Motherboard Connectors)

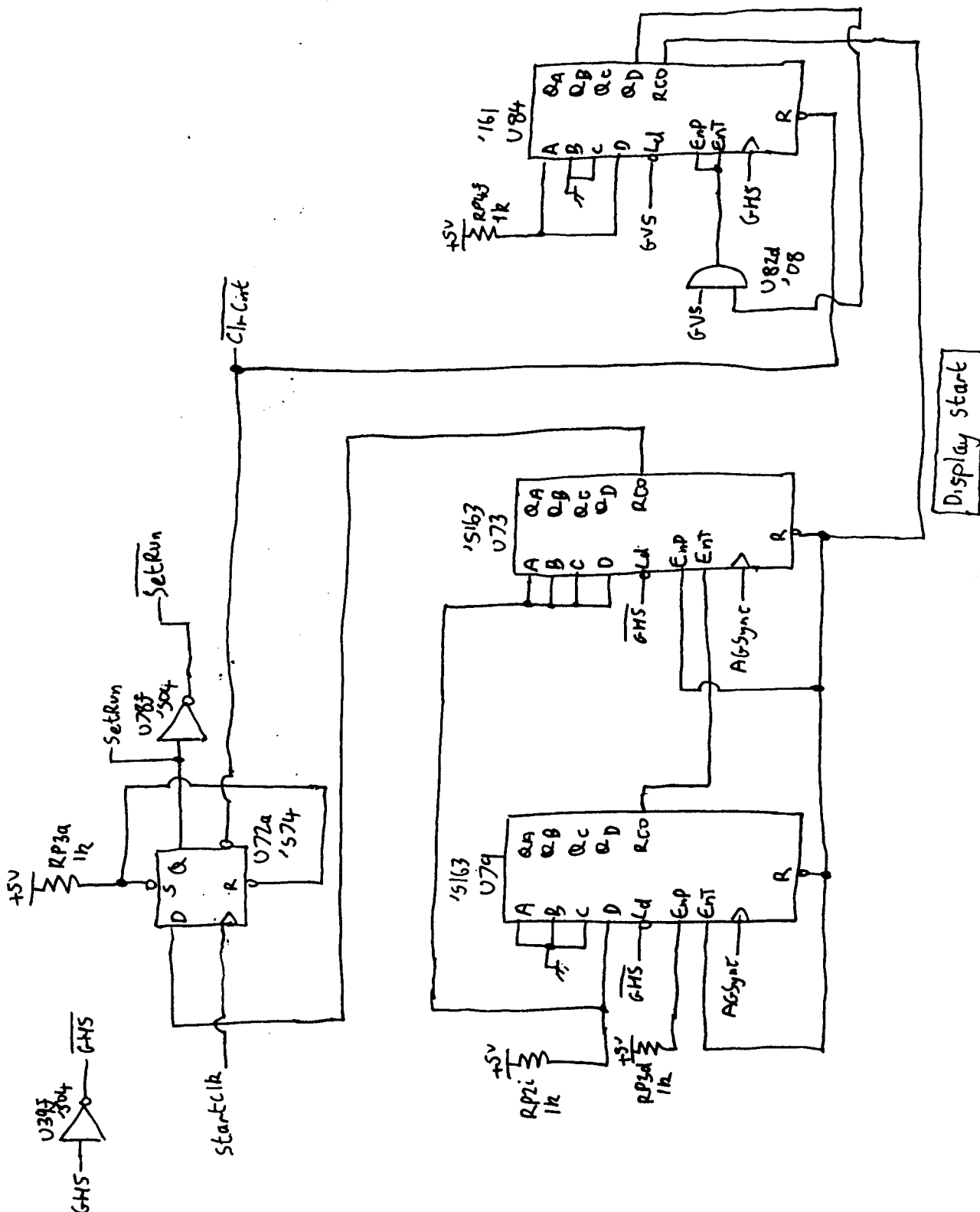
(Text Video PCB Connector)

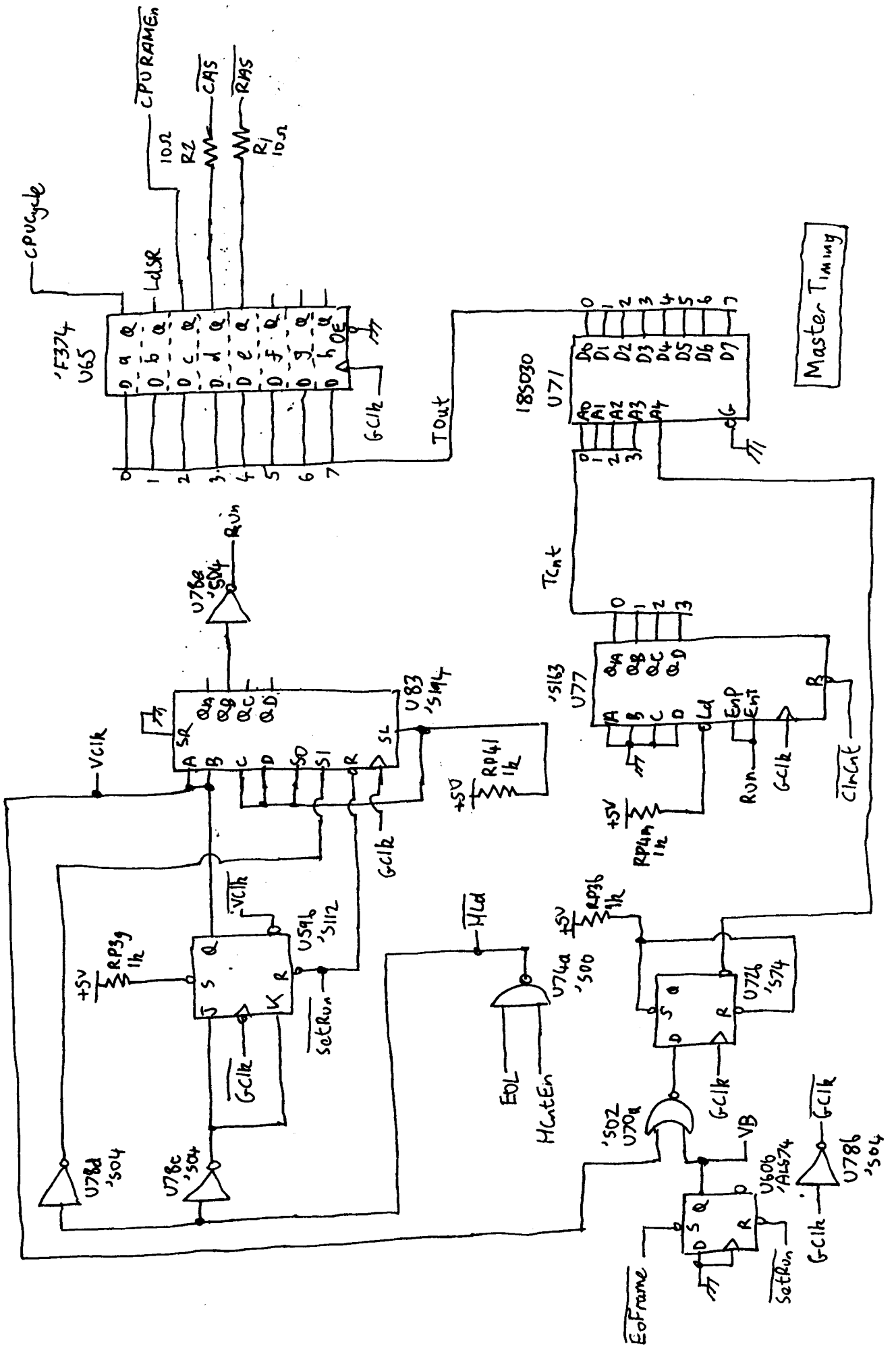


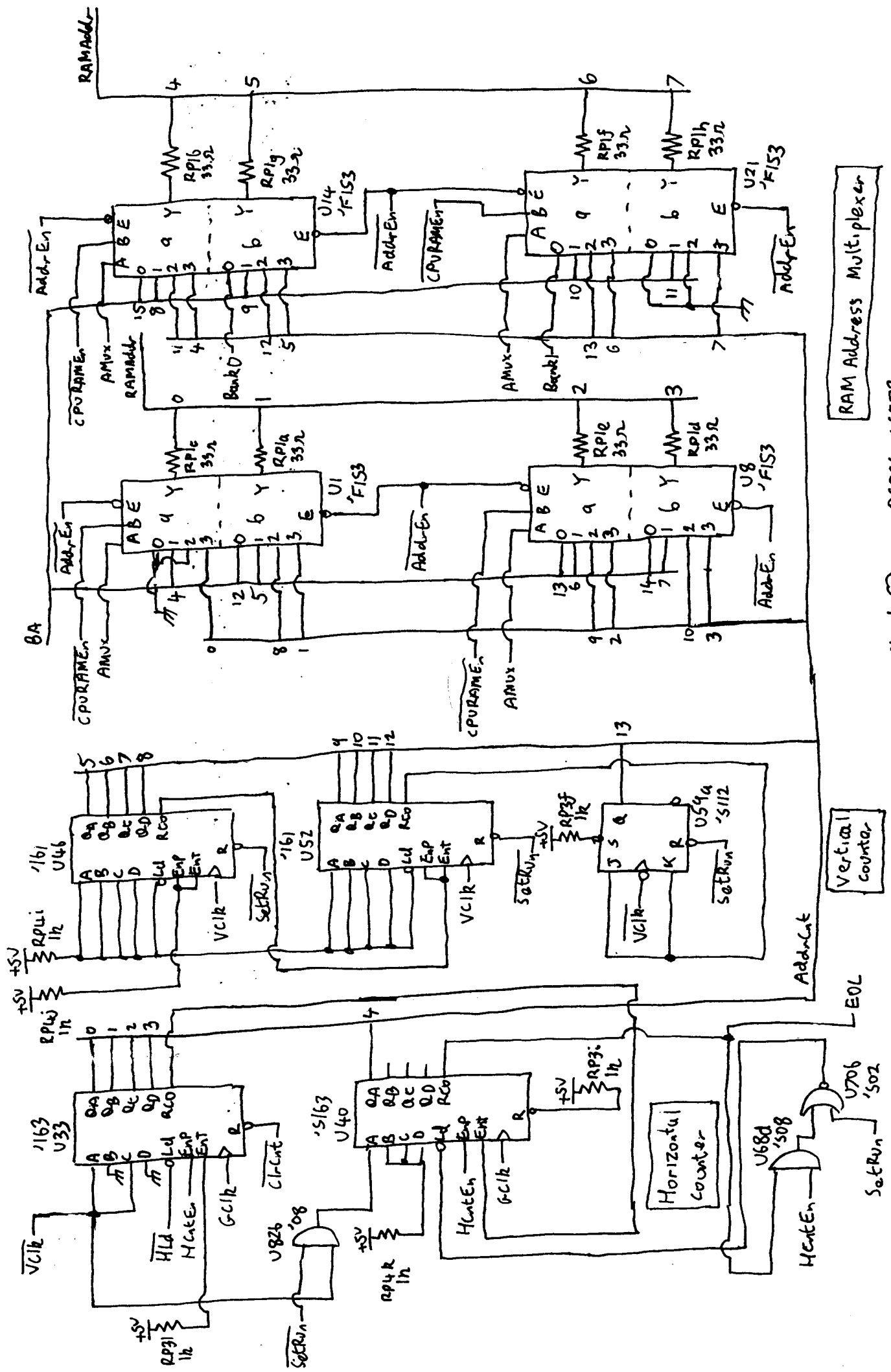
Address Buffers

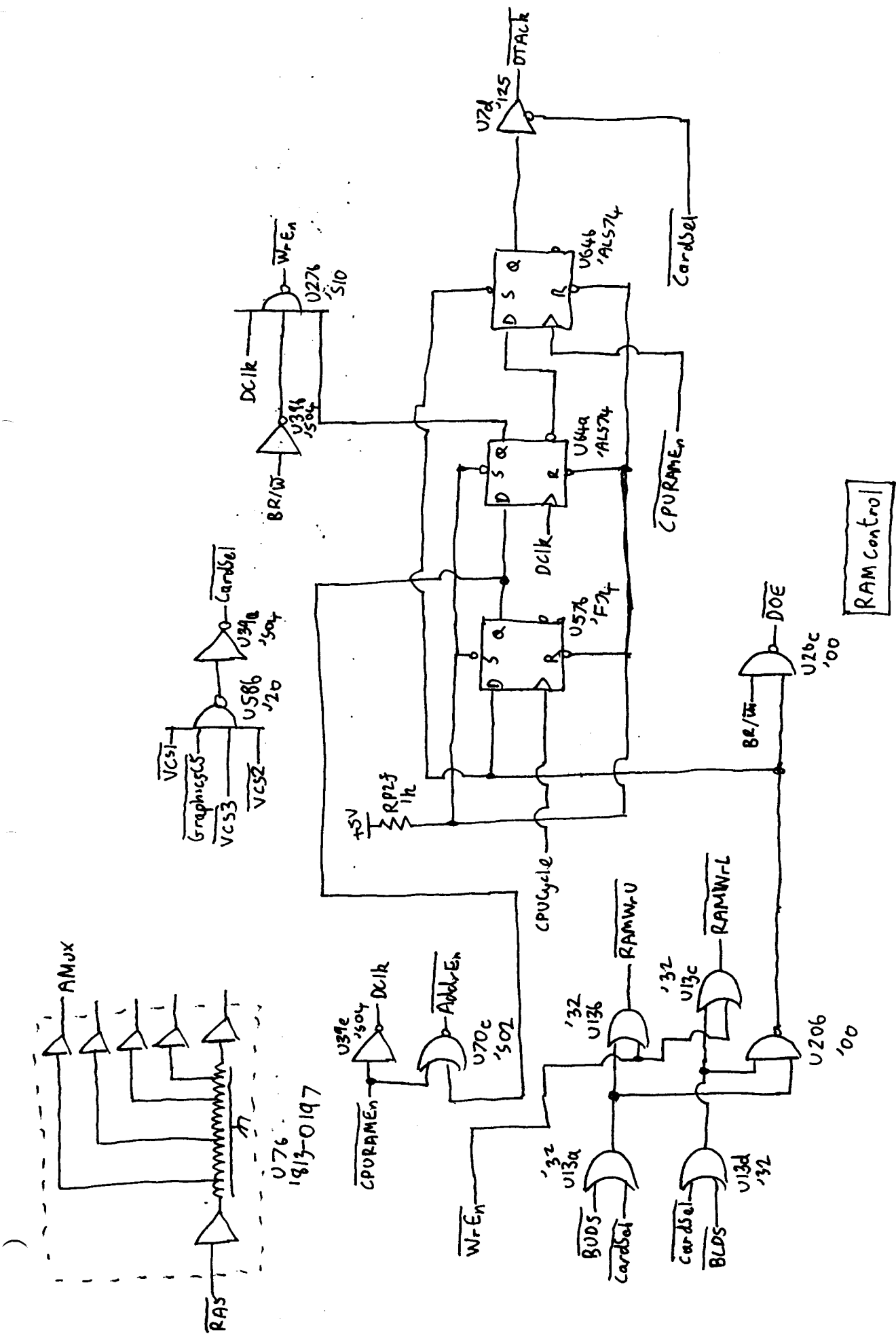
09836-66573

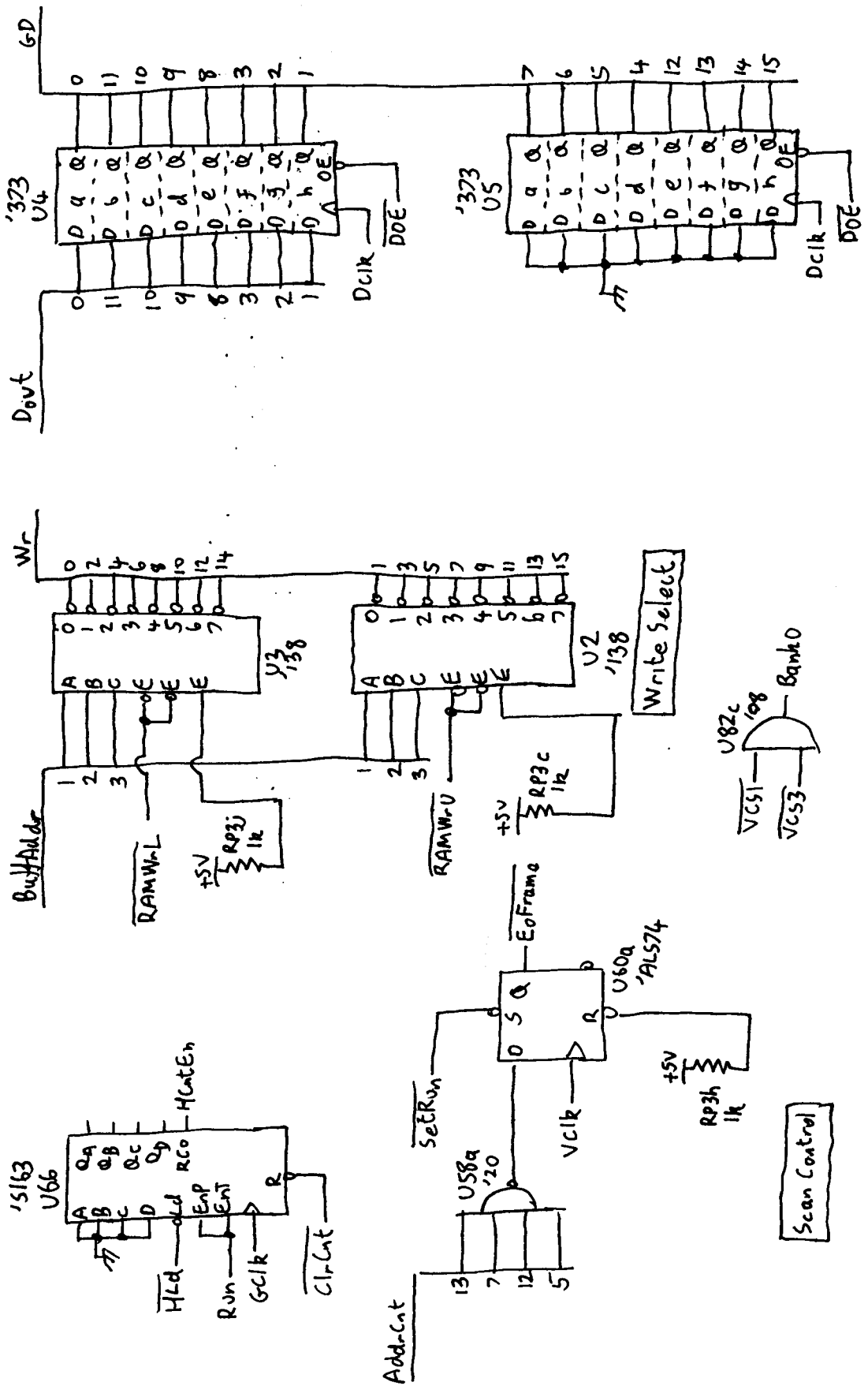
HP9836C Graphics PCB Sheet(2)









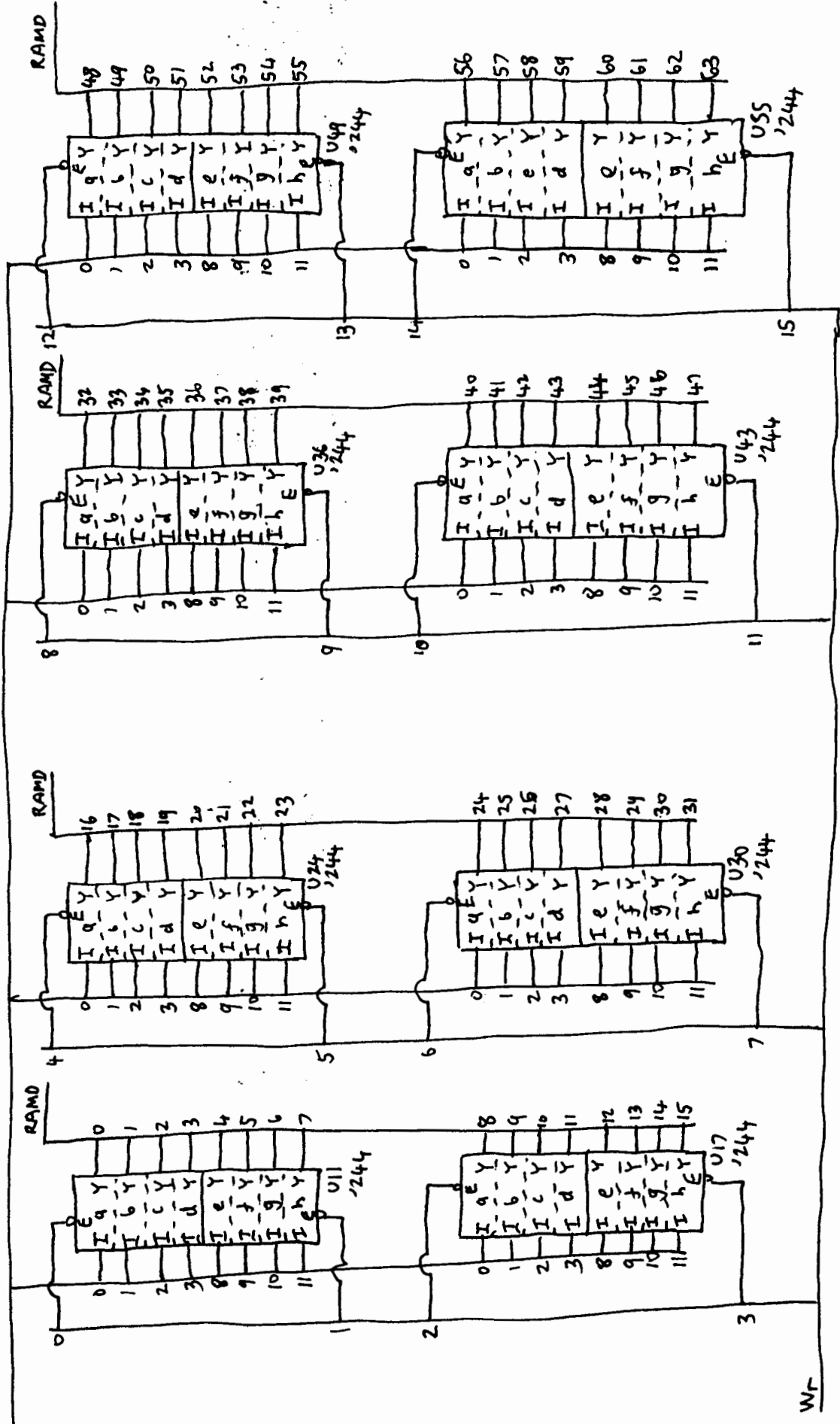


Data Output Latch

Write Select

Scan Control

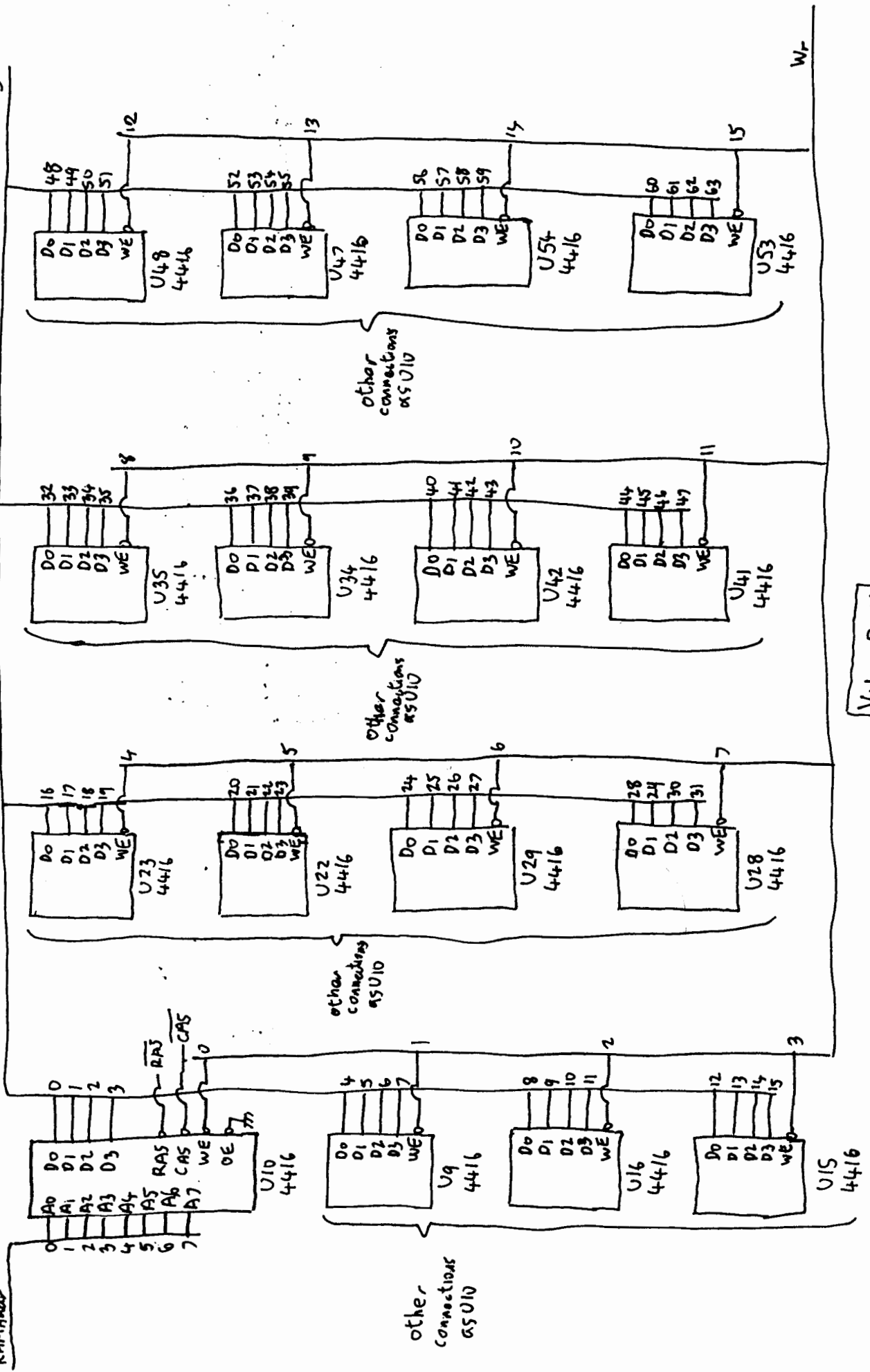
GD



RAM Input Buffers

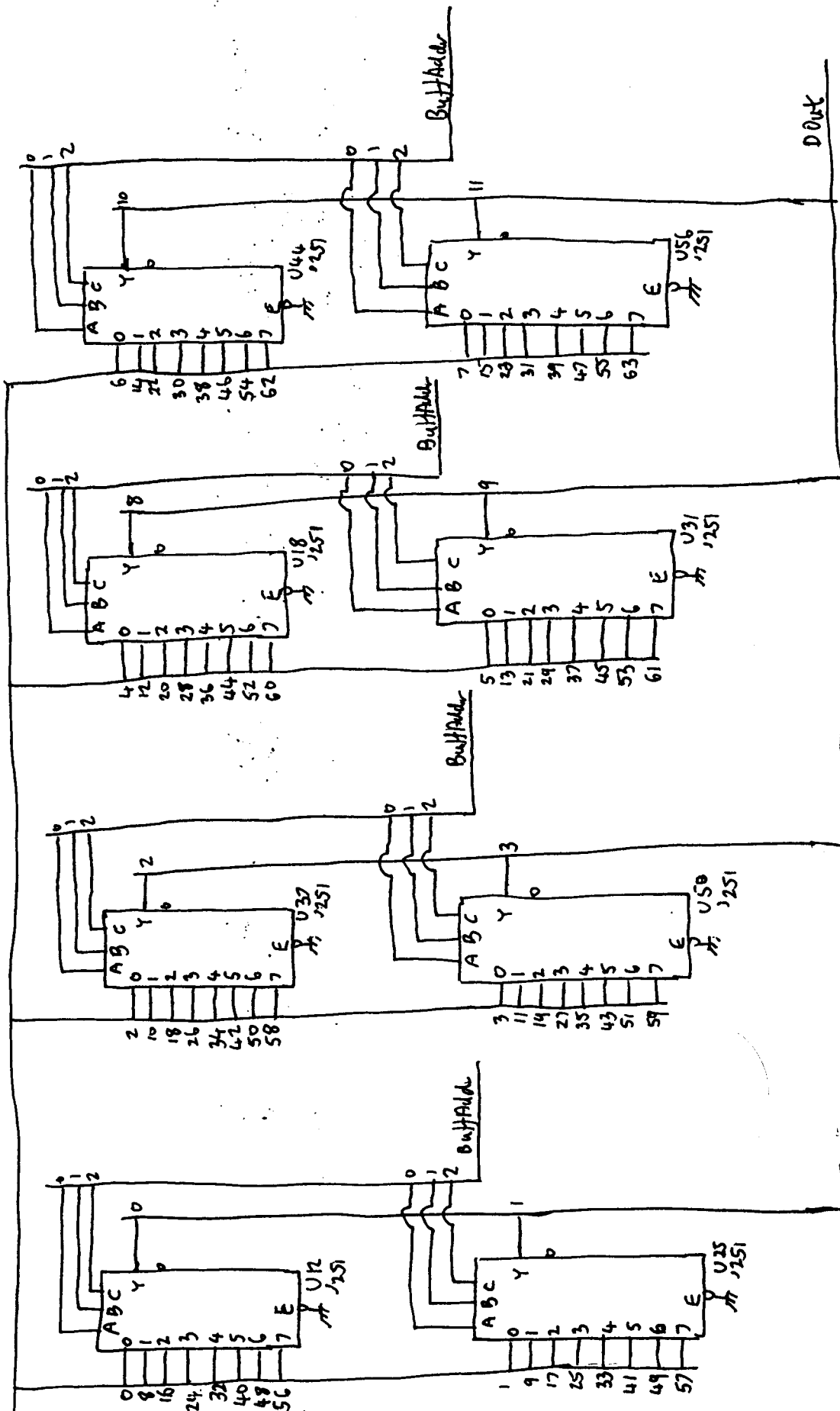
RAMD

RAMAdd

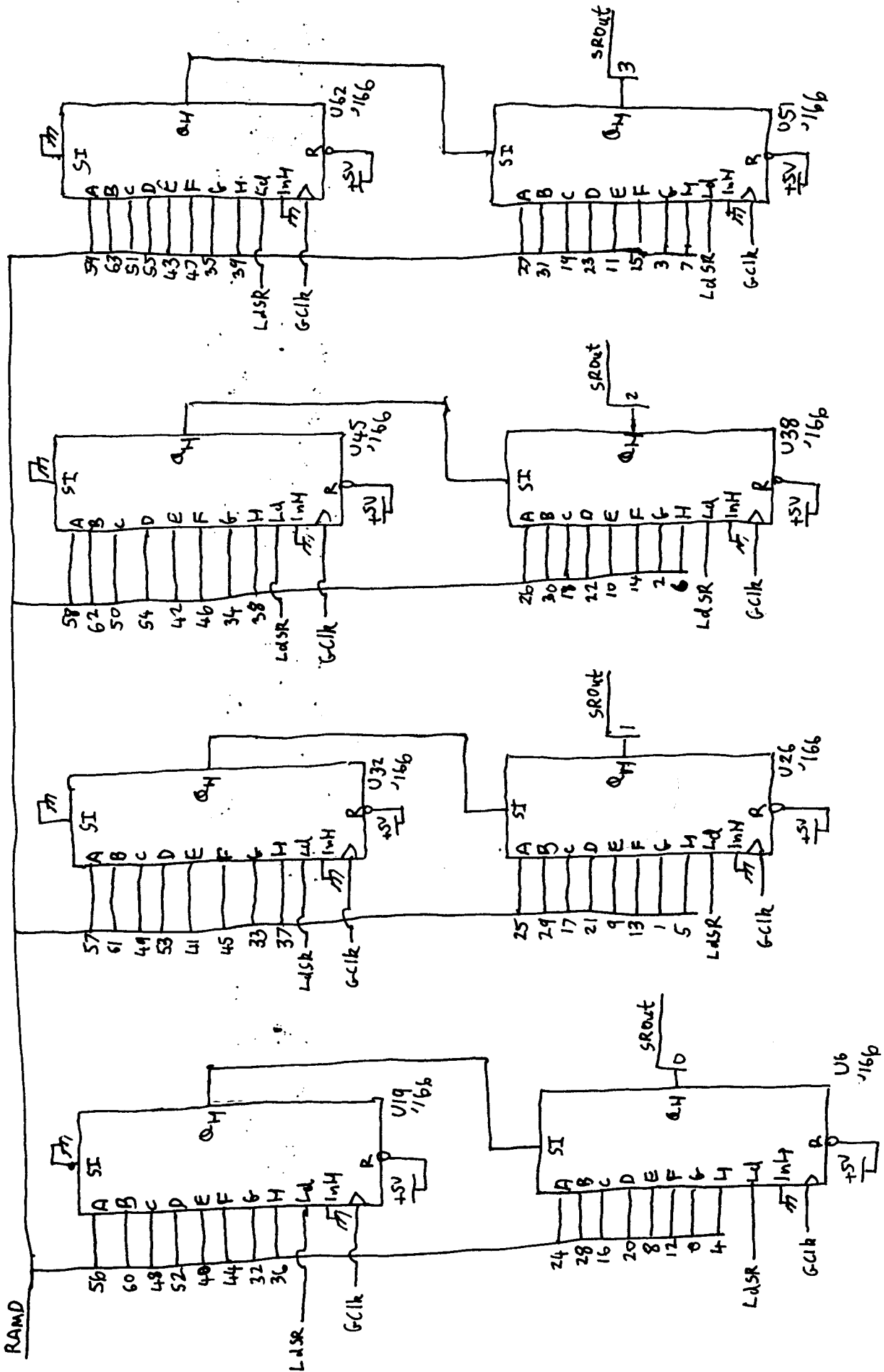


Video RAM

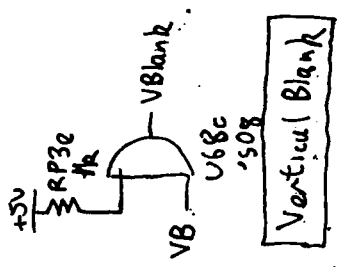
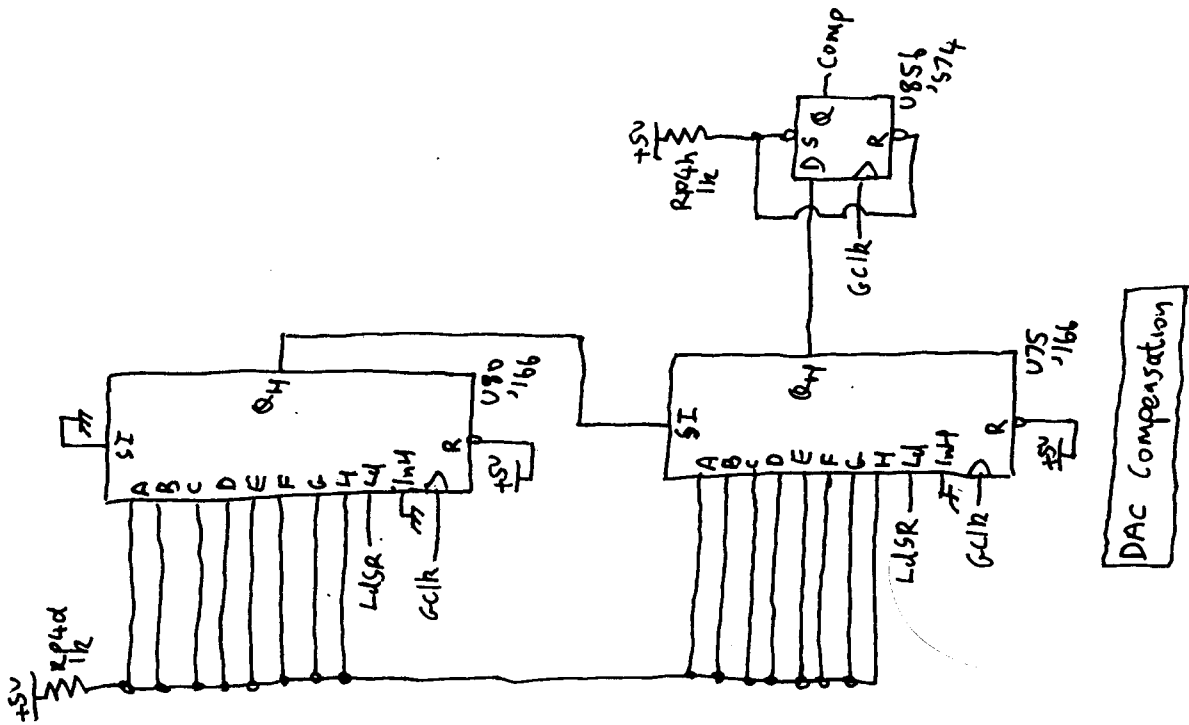
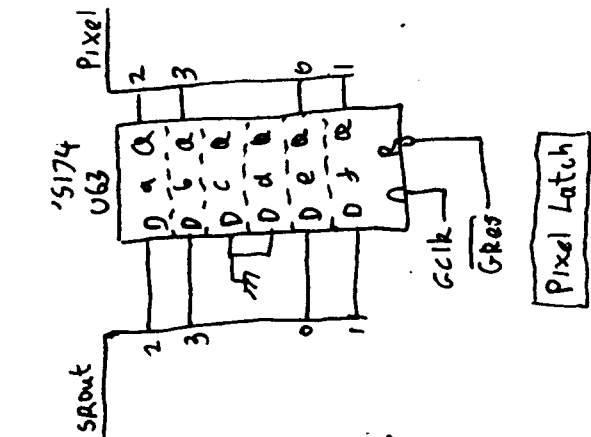
RAM

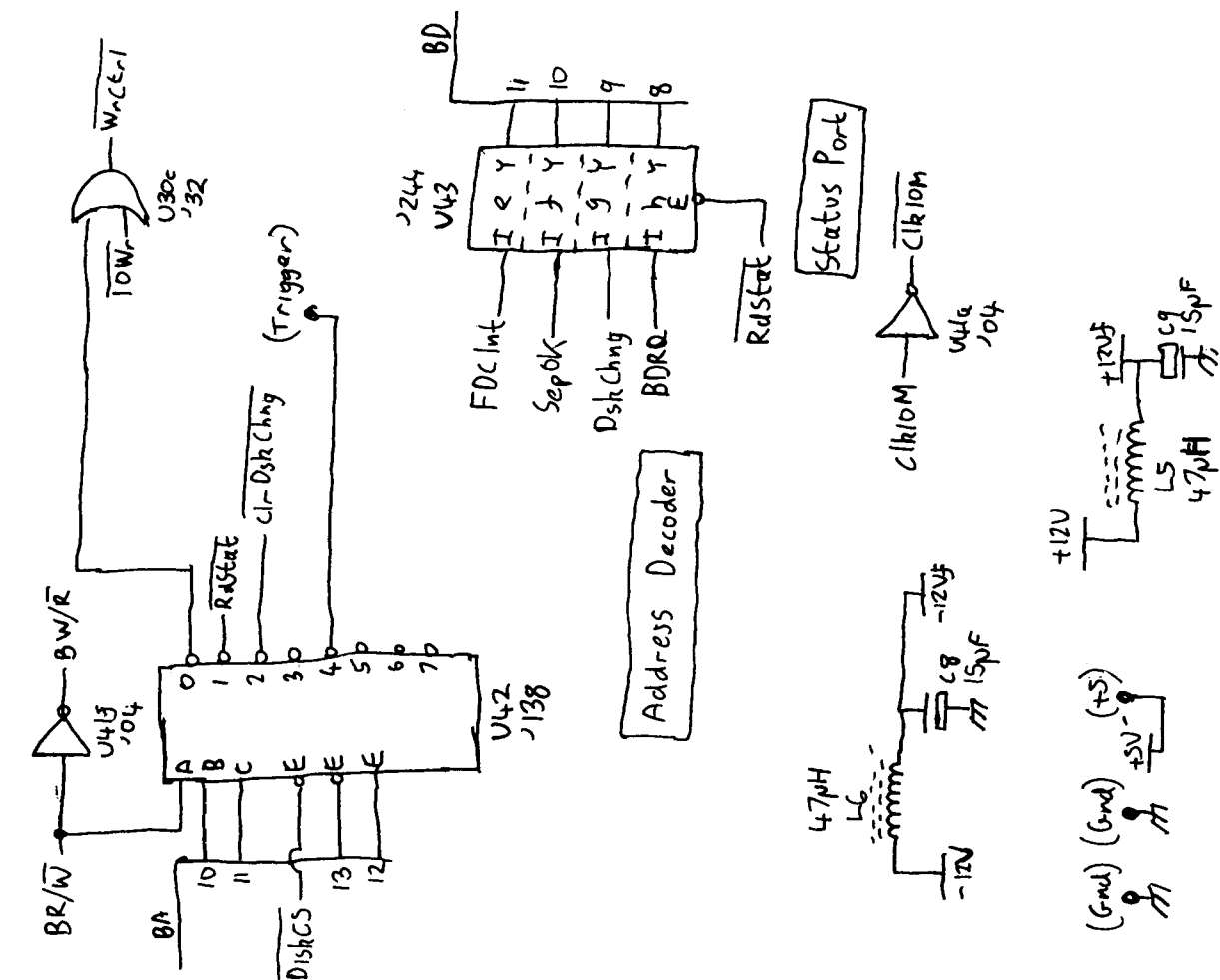
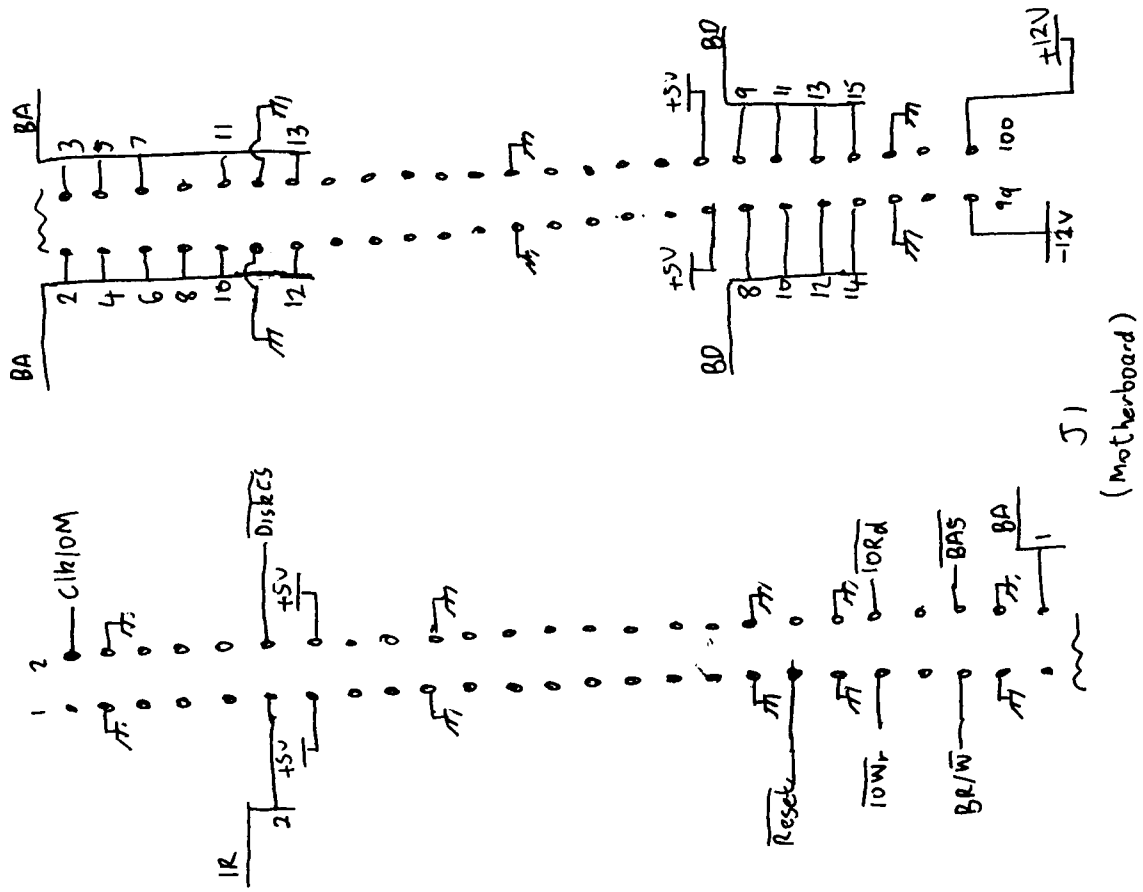


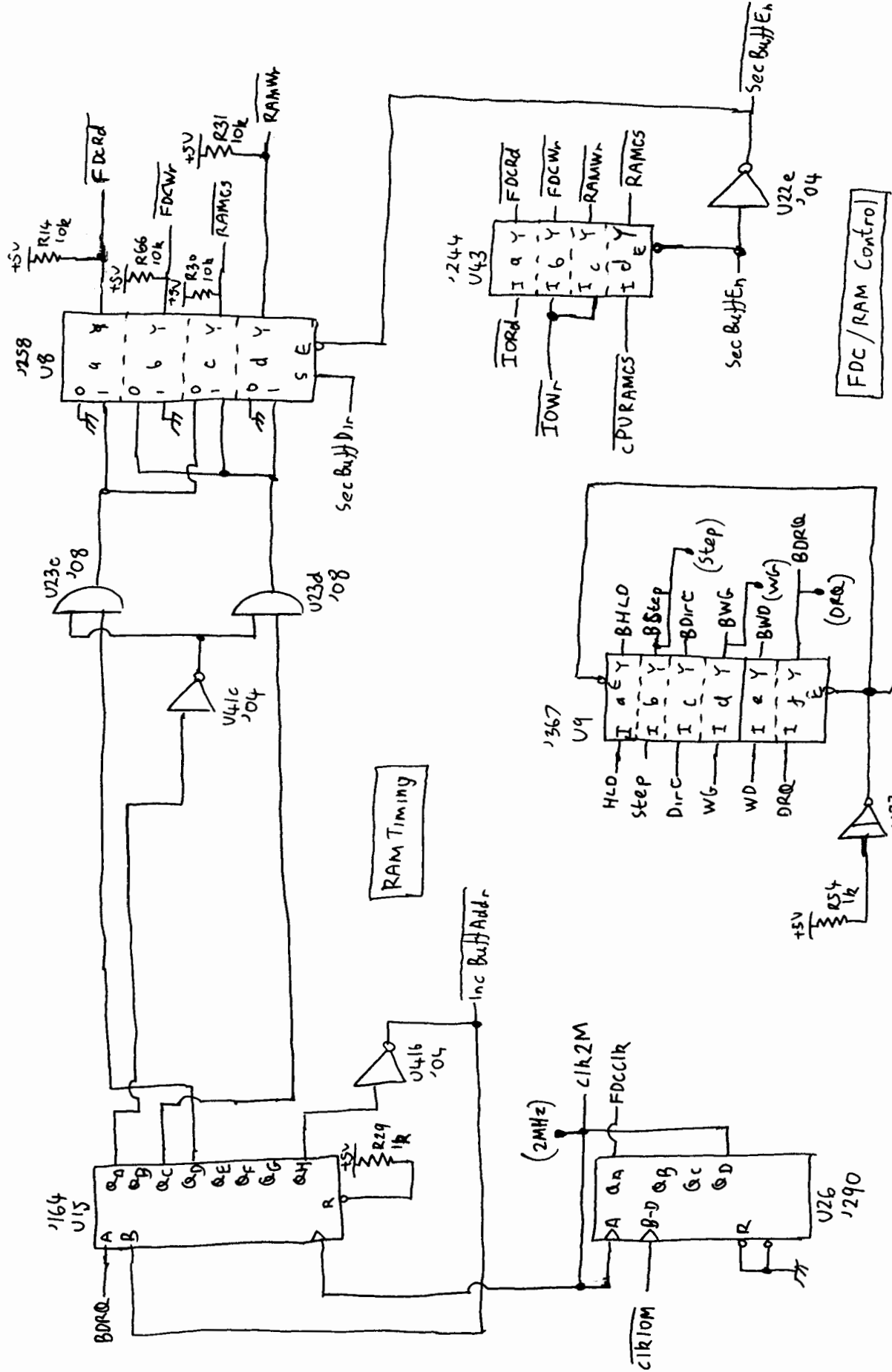
RAM Read Multiplexer

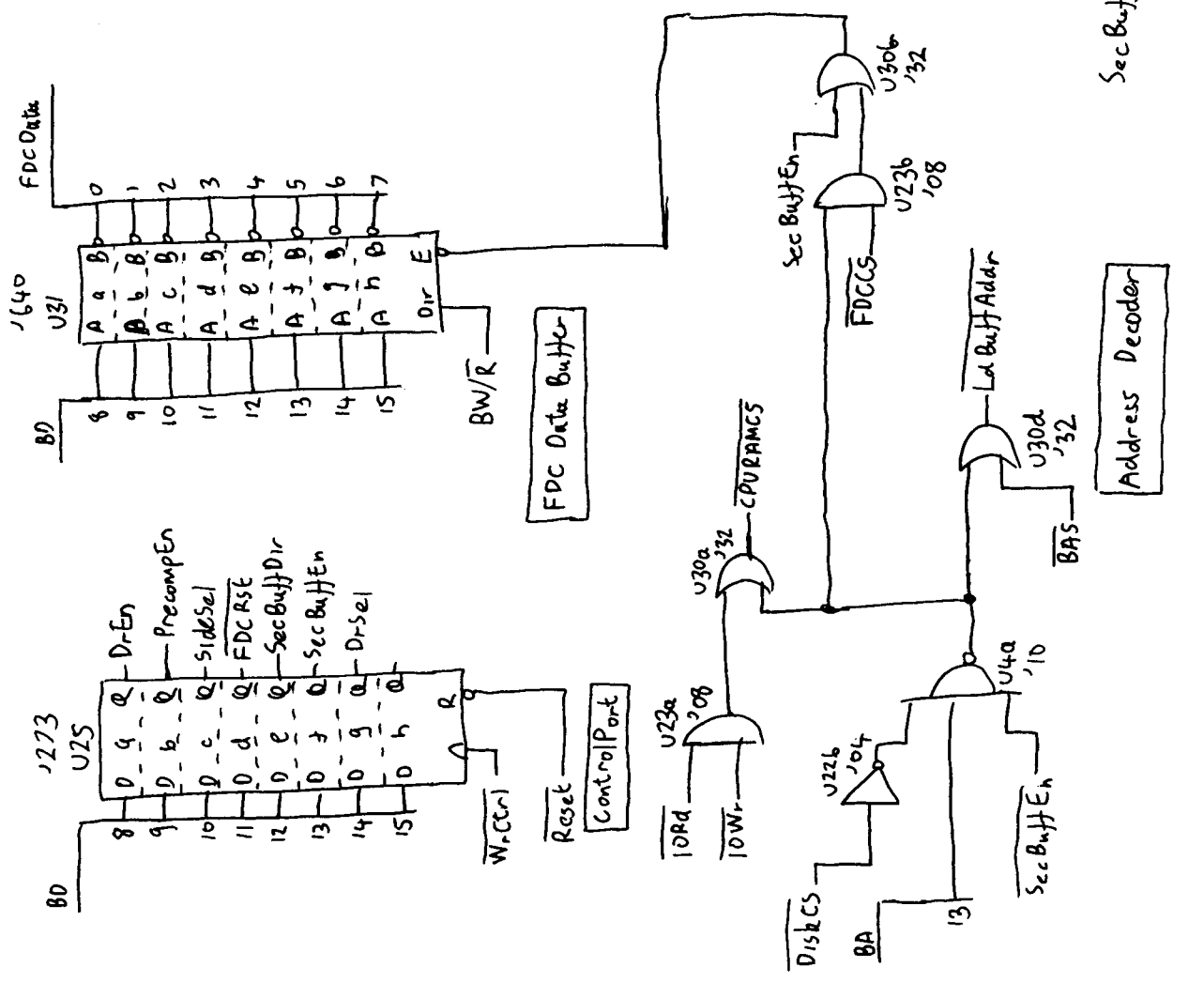
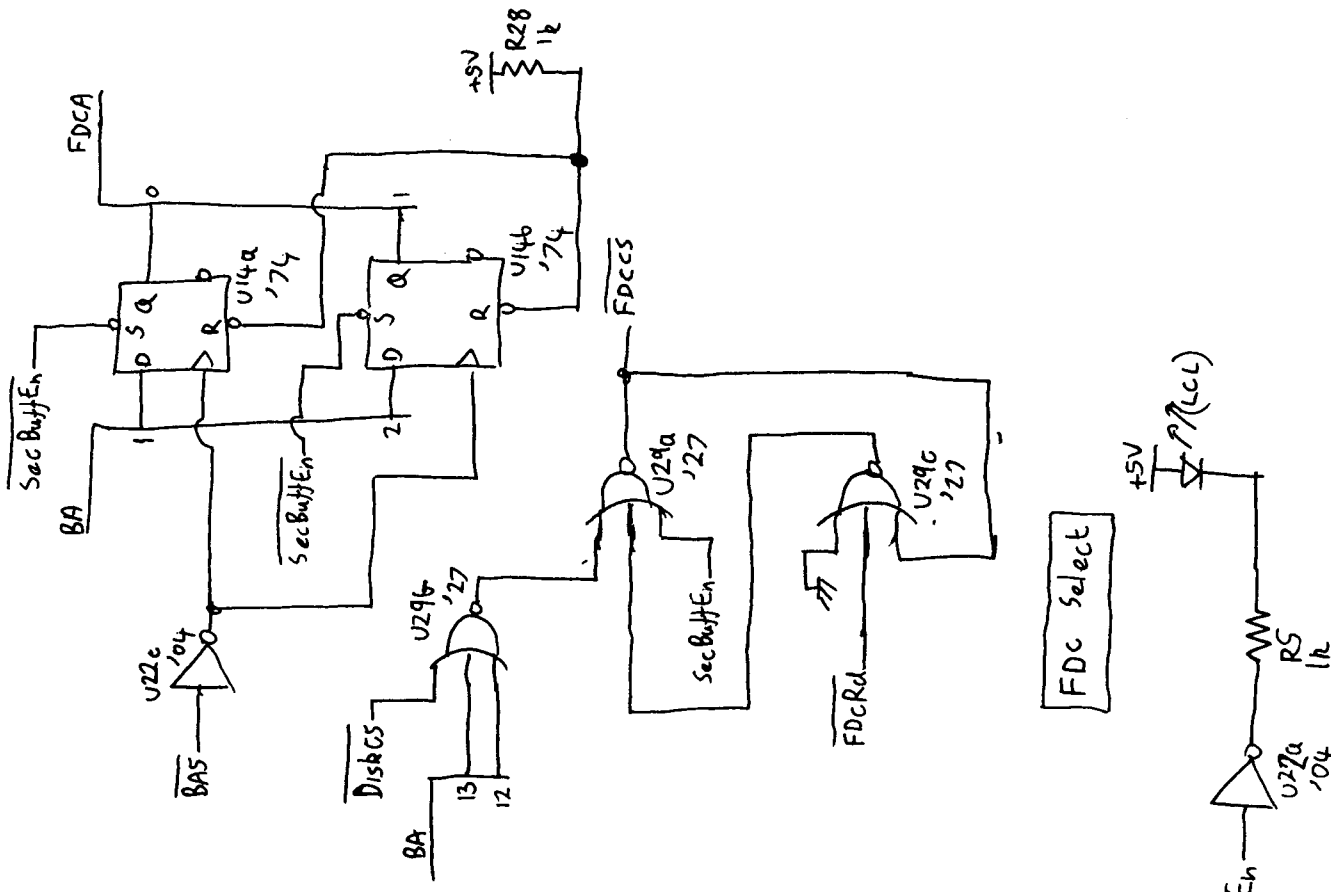


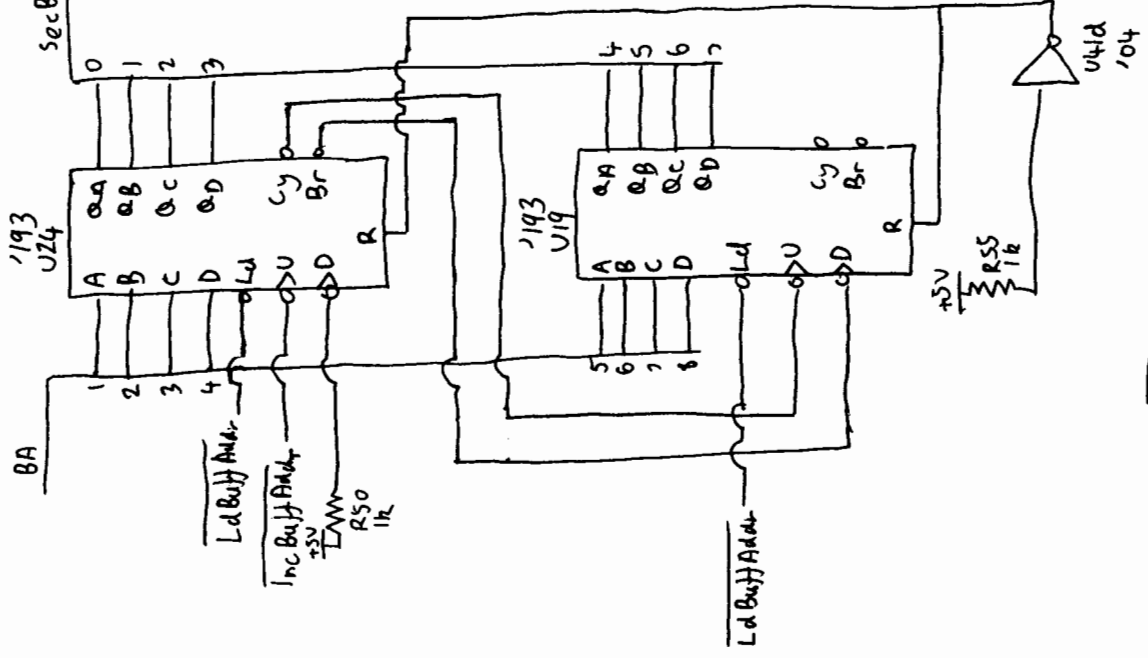
Dot Shift Register







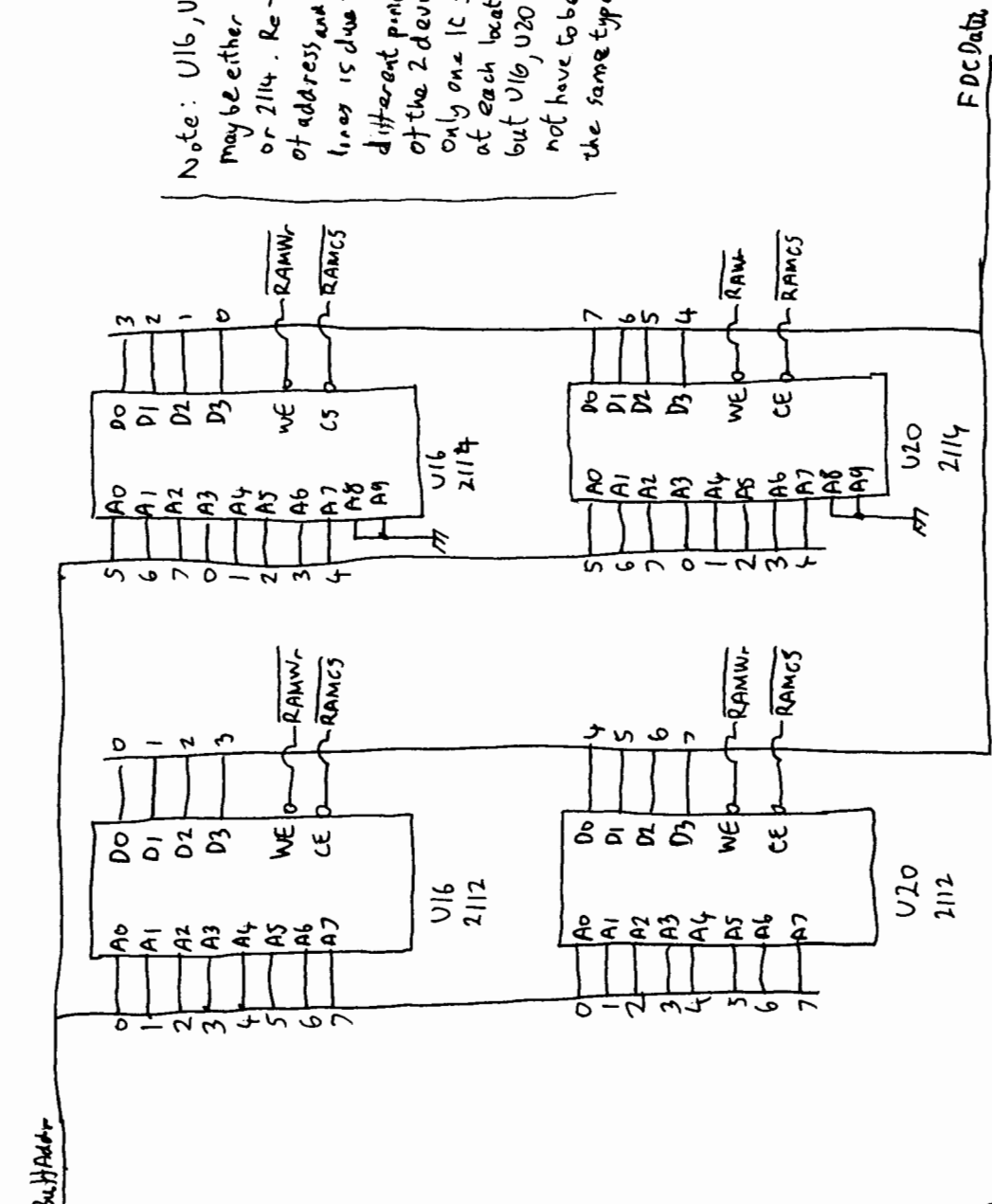




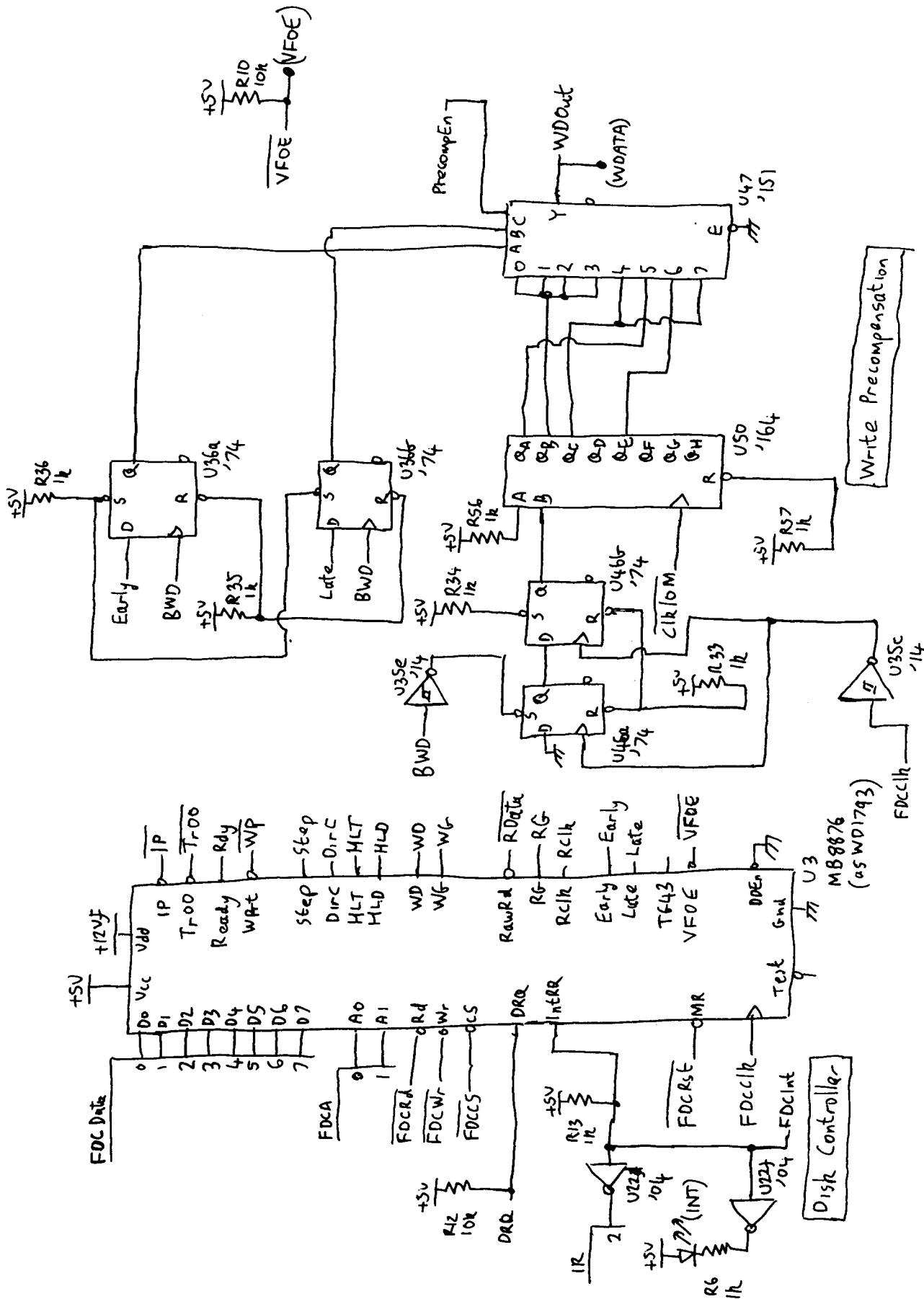
RAM Address Counter

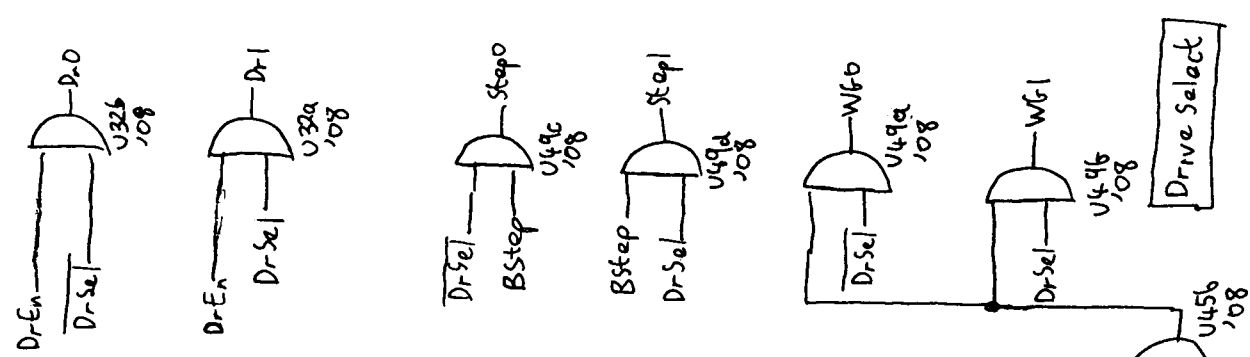
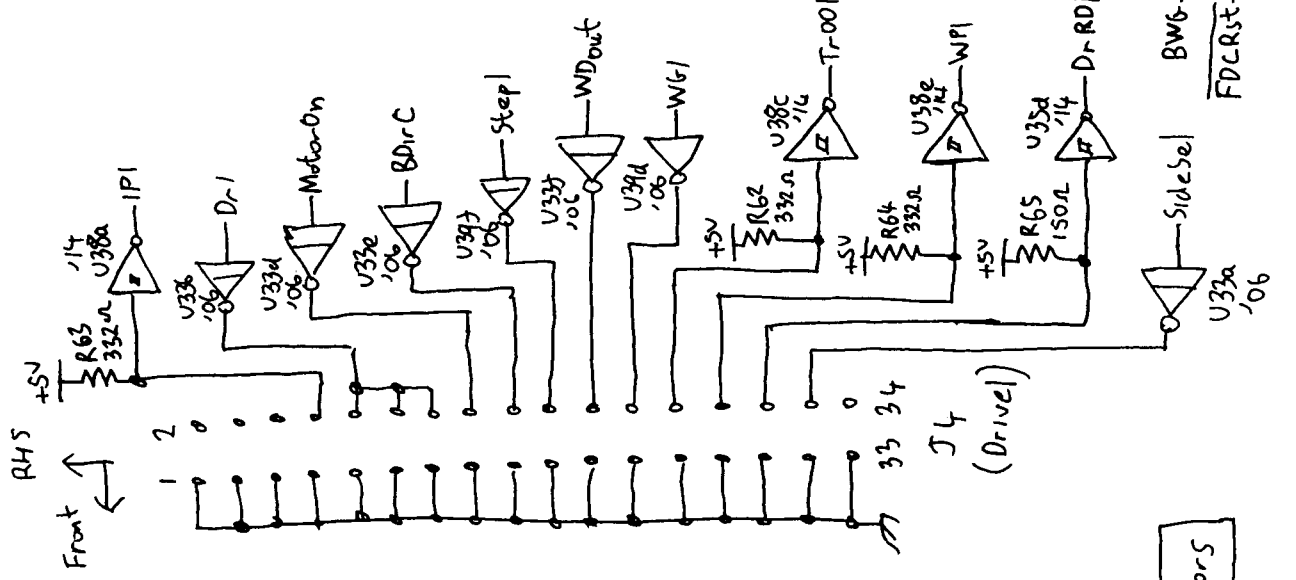
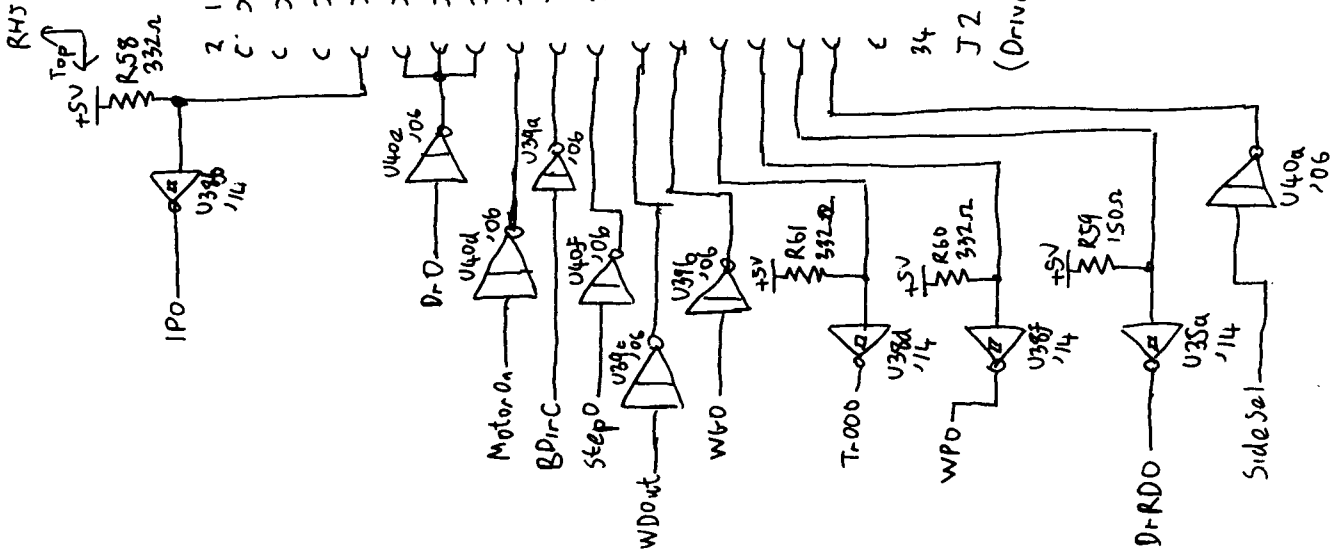
Sector Buffer RAM

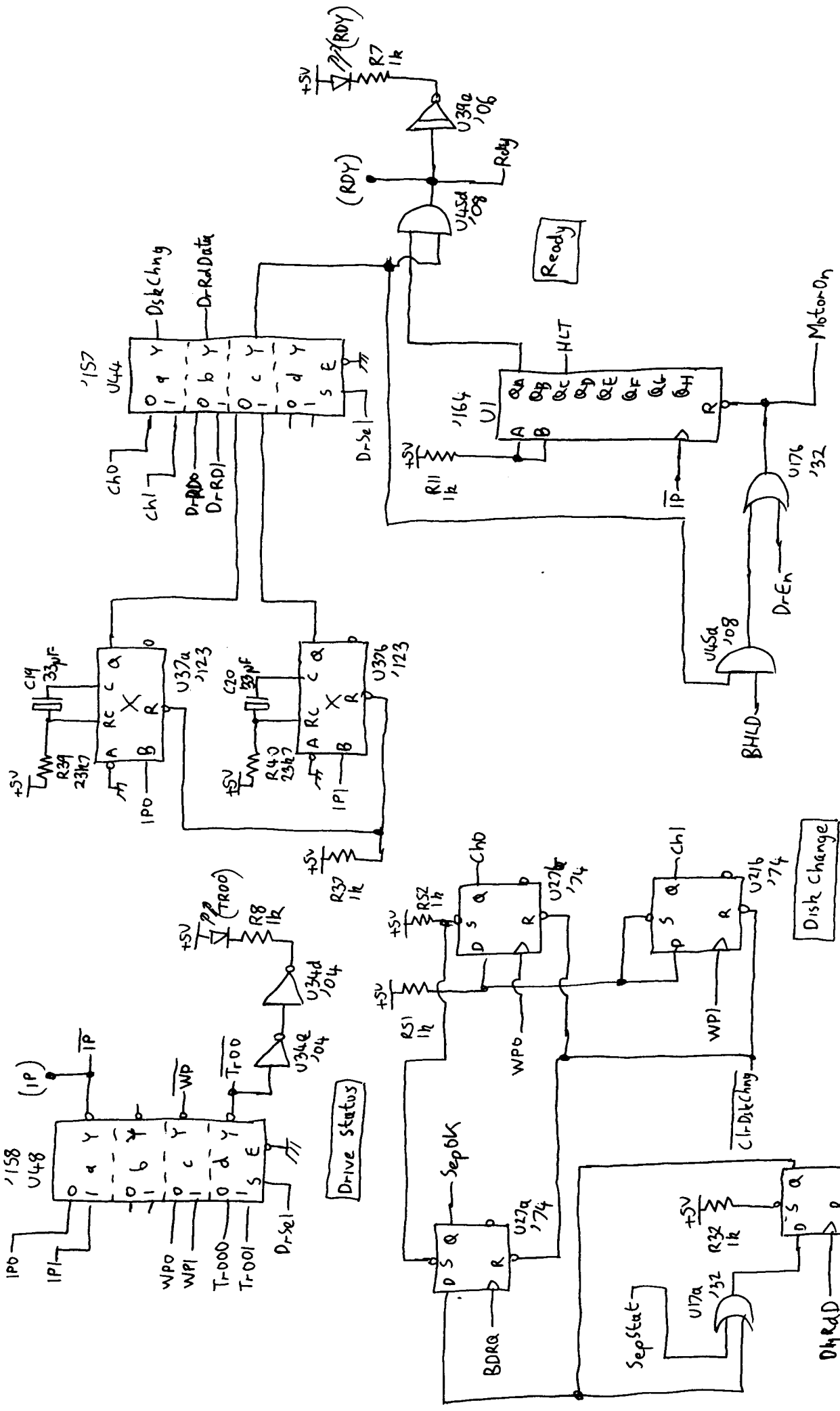
Note: U16, U20 may be either 2112 or 2114. Re-ordering of address, and data lines is due to different priority of the 2 devices. only one IC fitted at each location, but U16, U20 do not have to be the same type.

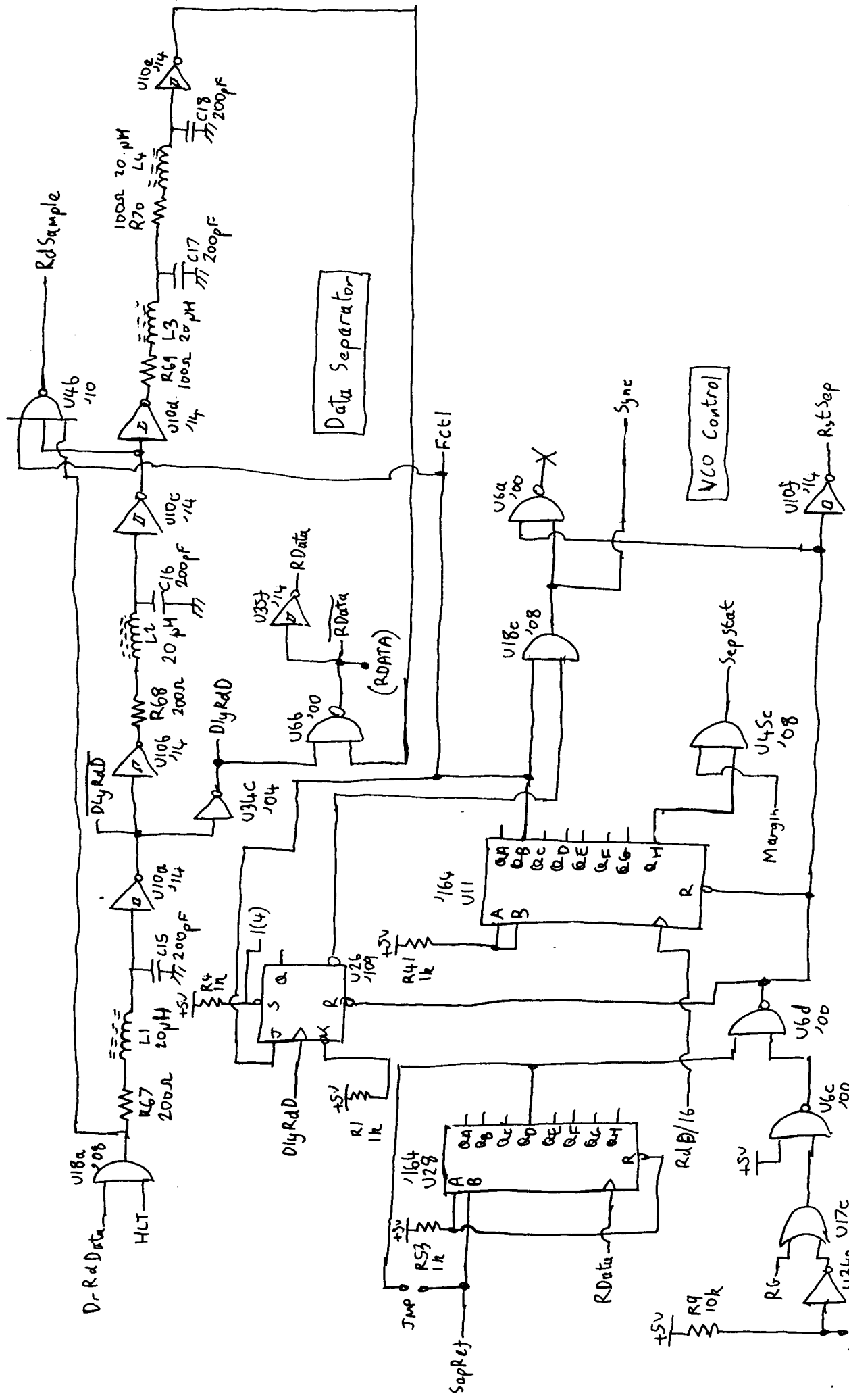


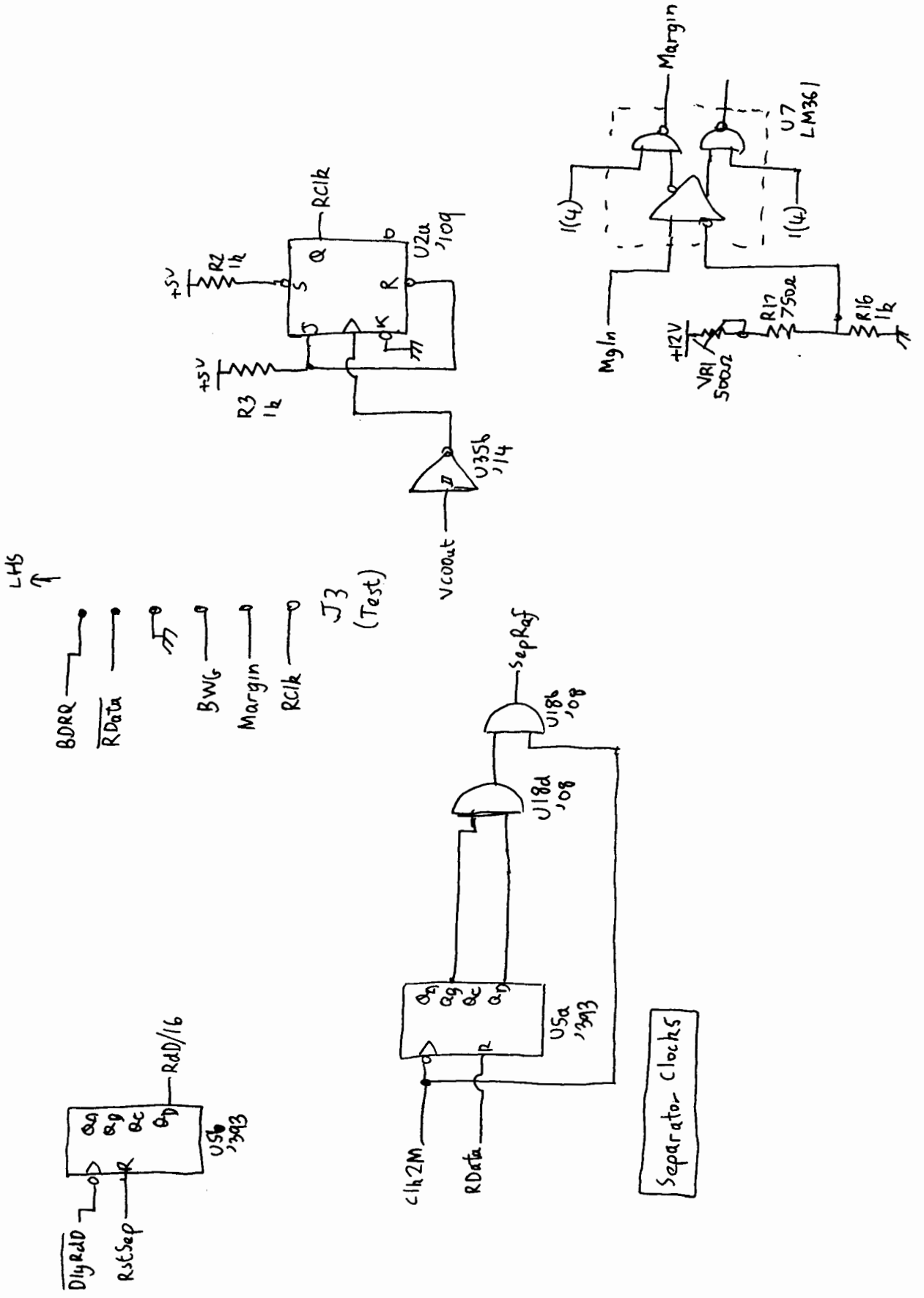
FDC Data







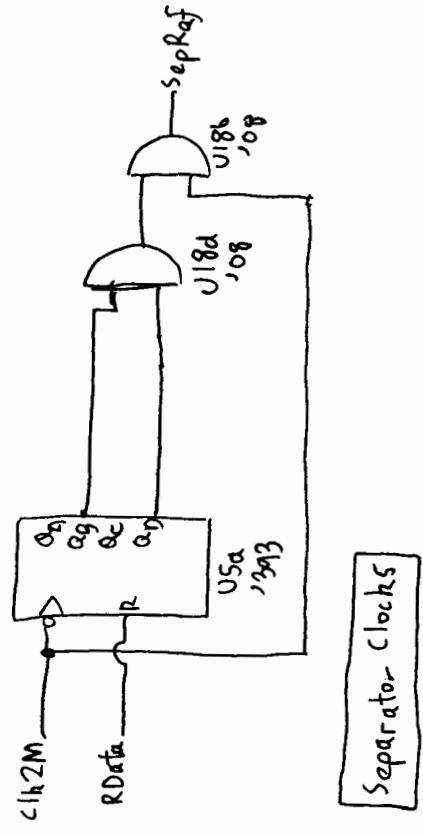


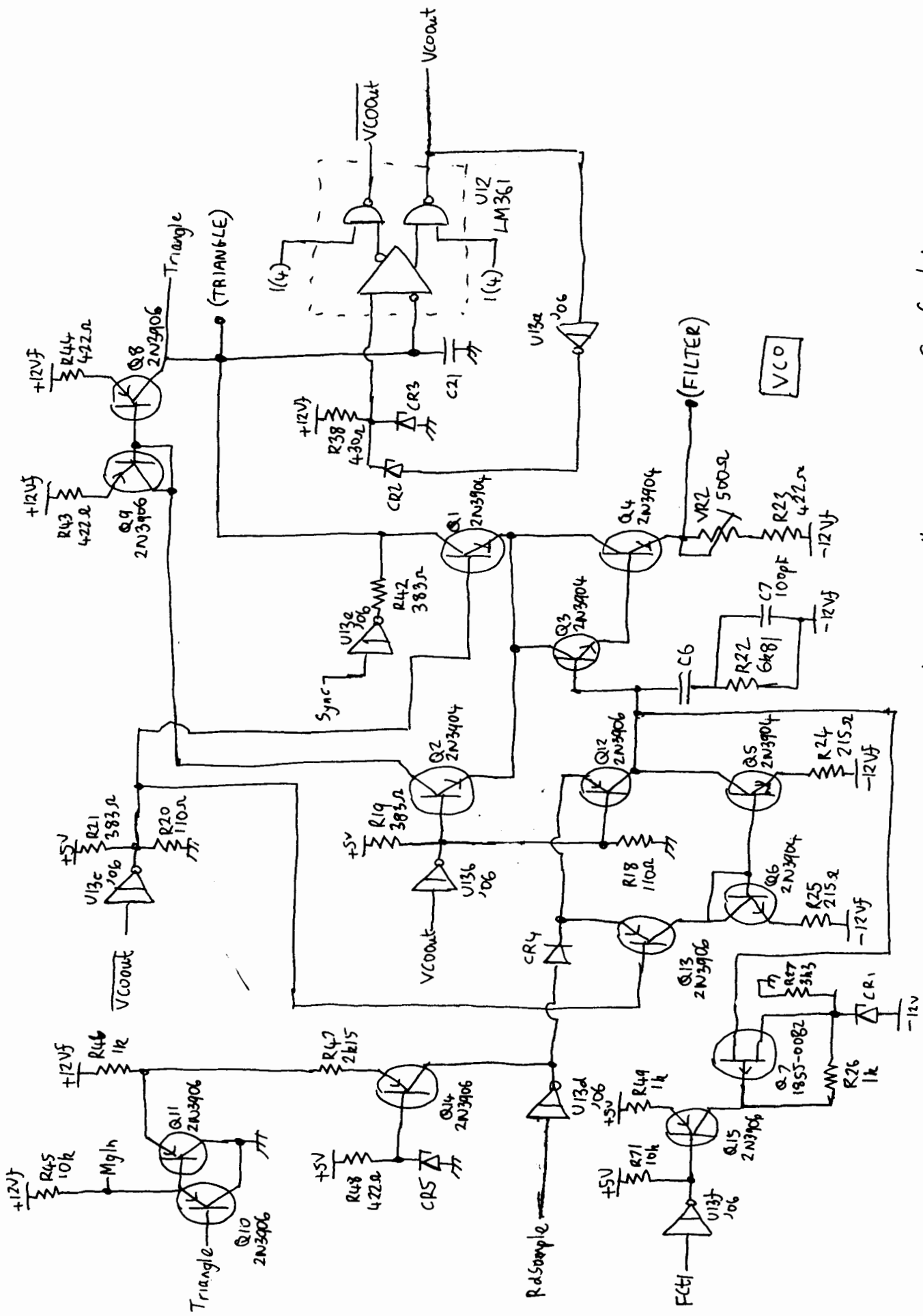


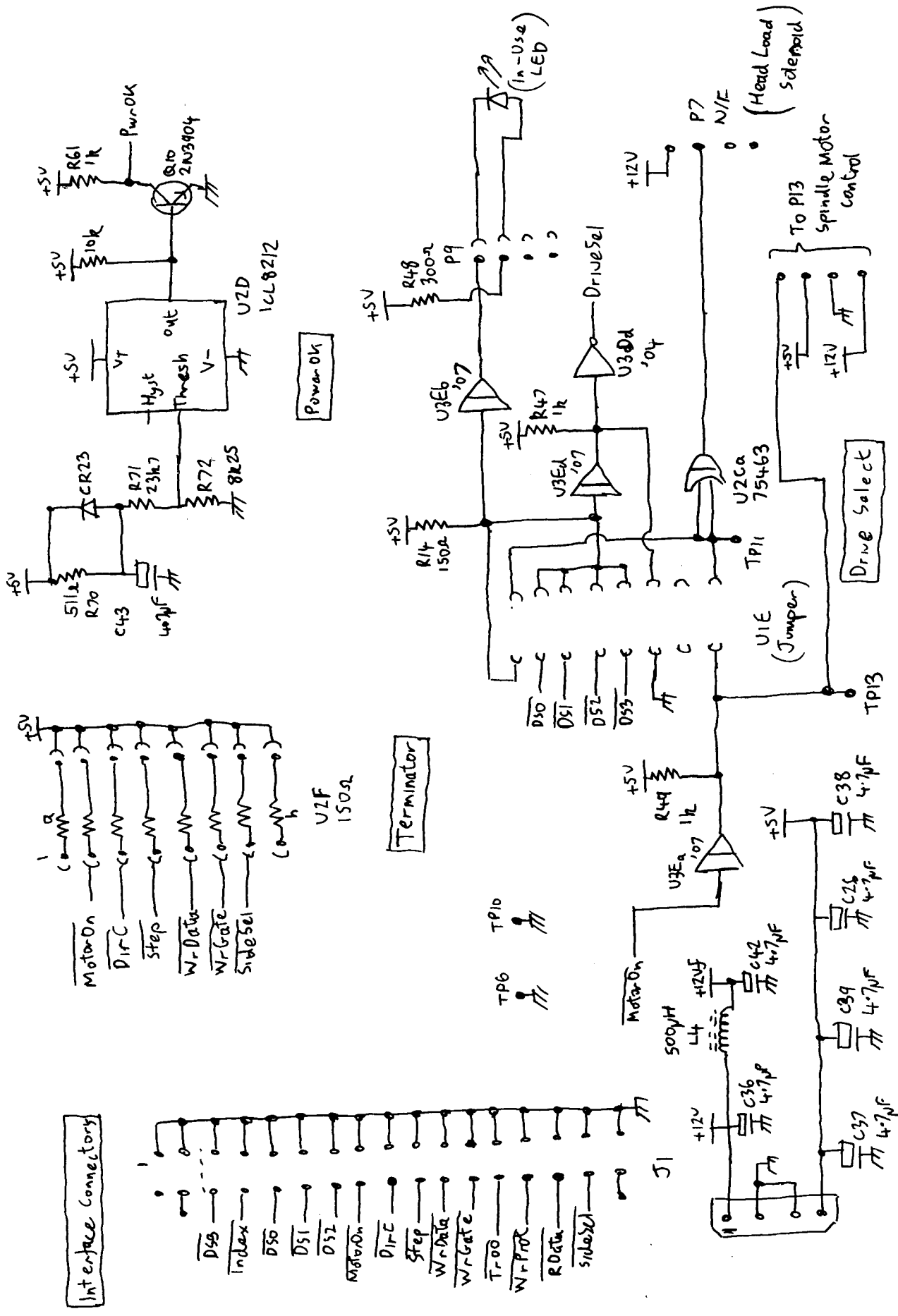
LHS ↑



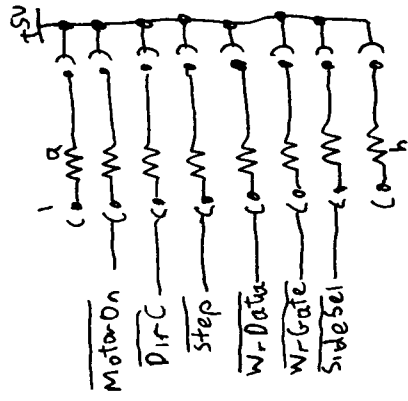
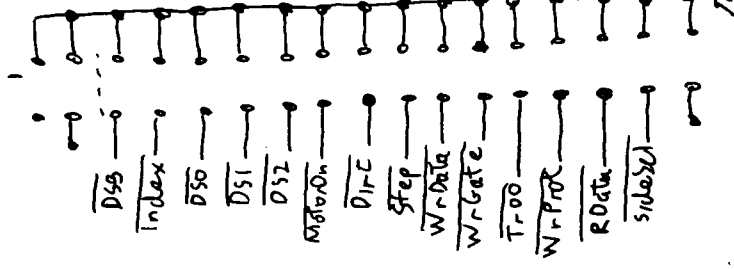
J3 (Test)





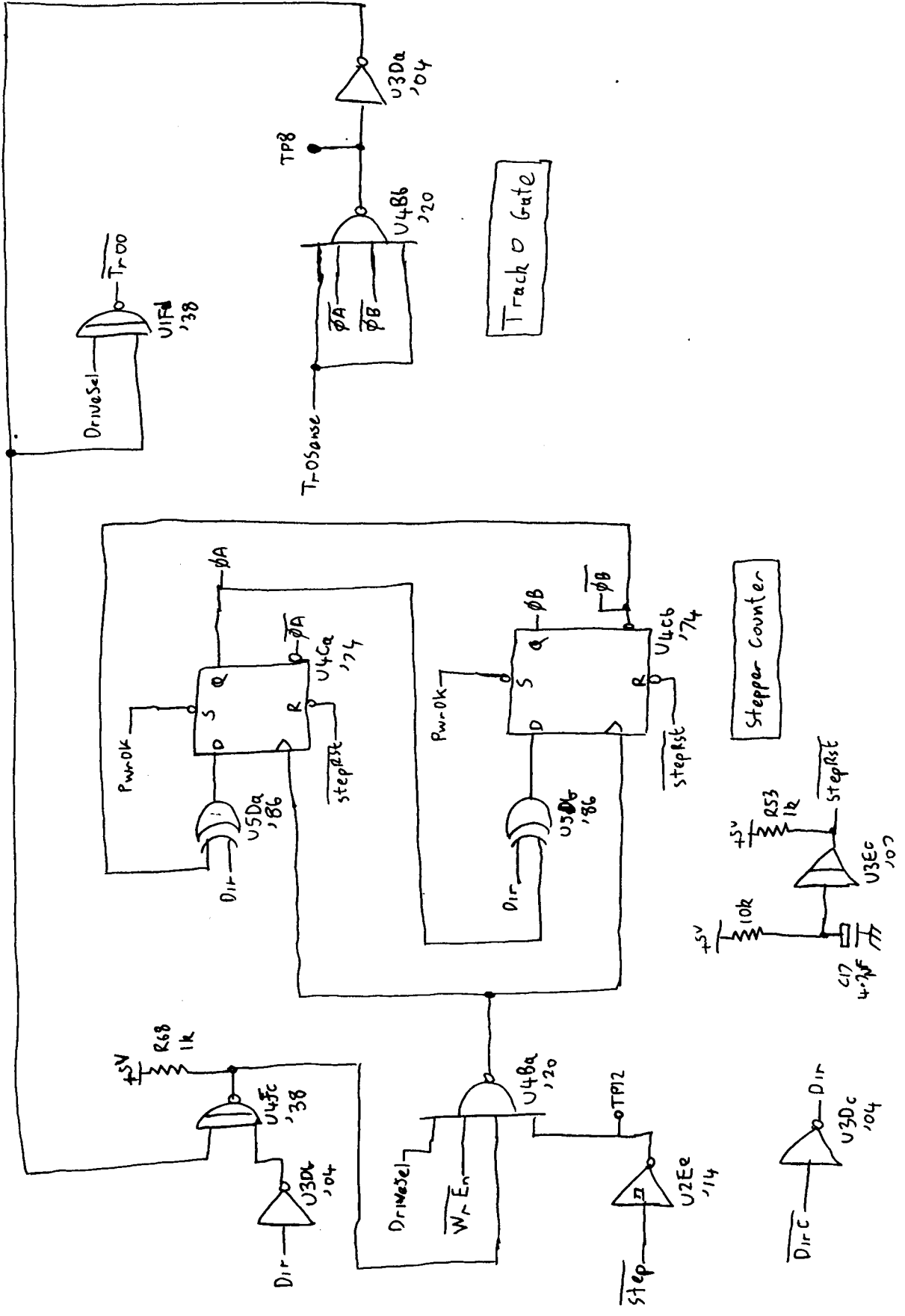


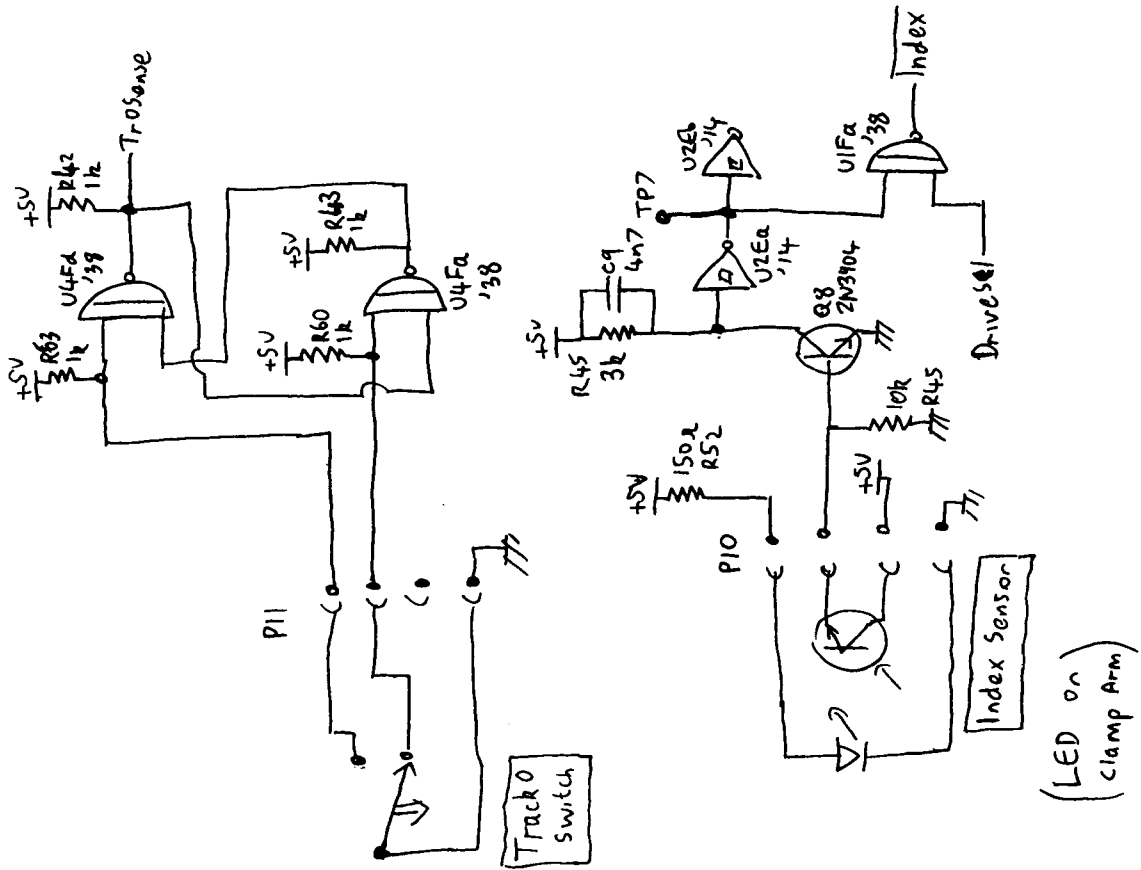
Interface Connectors



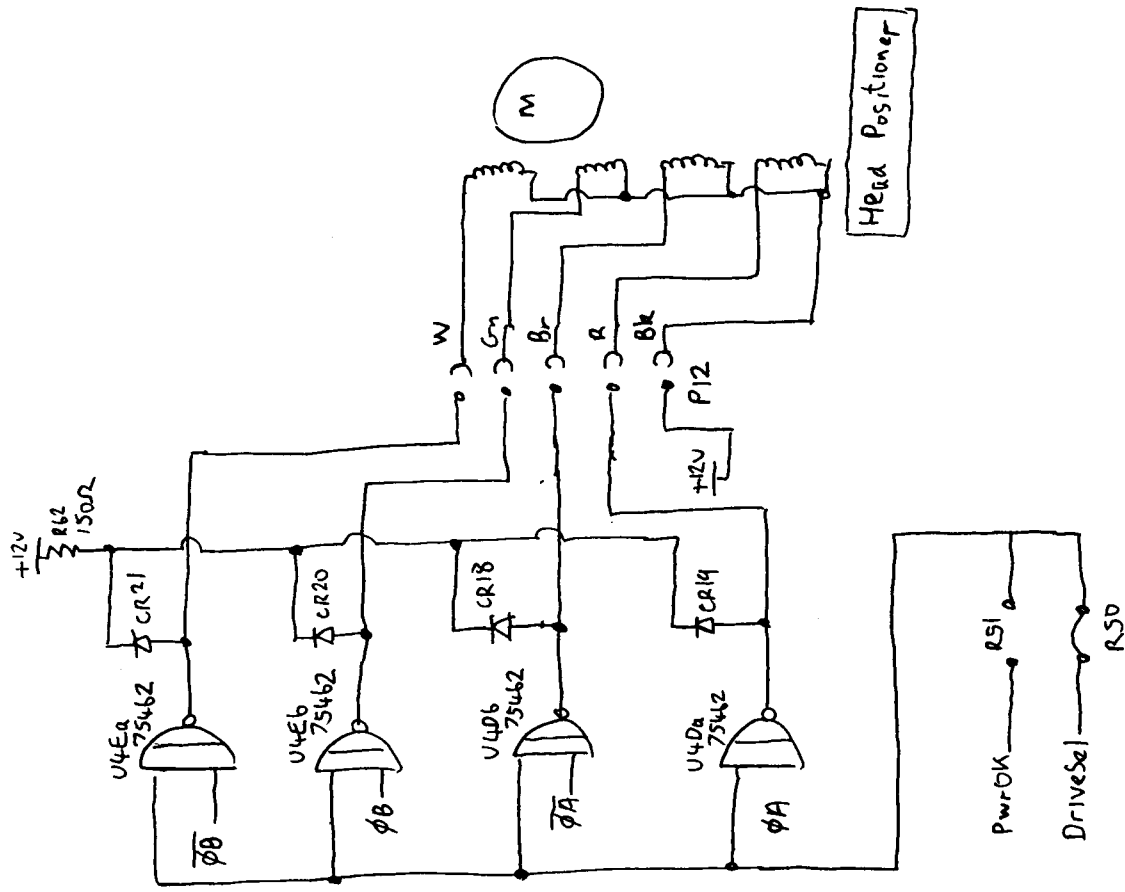
Power-OK

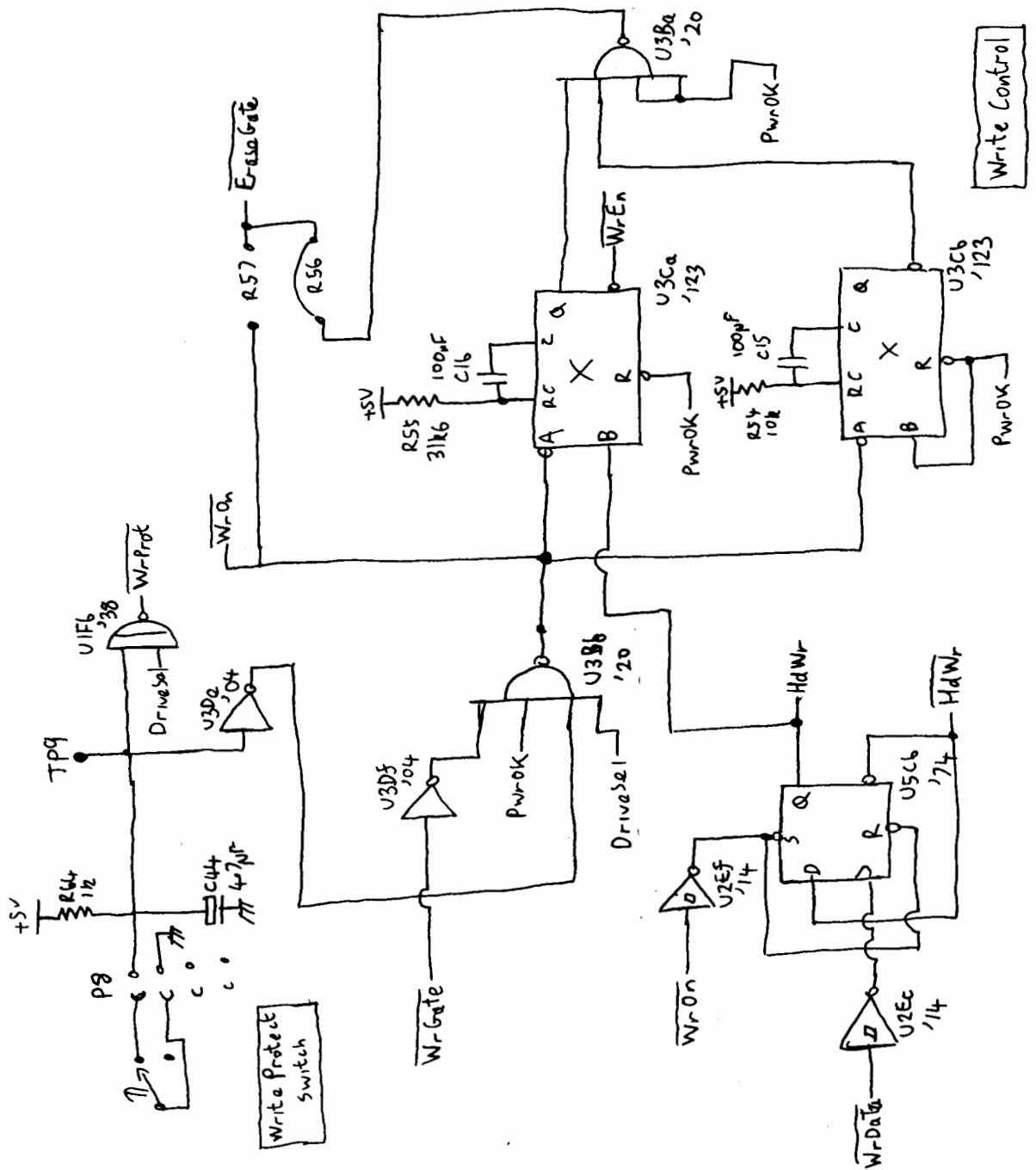
Terminator

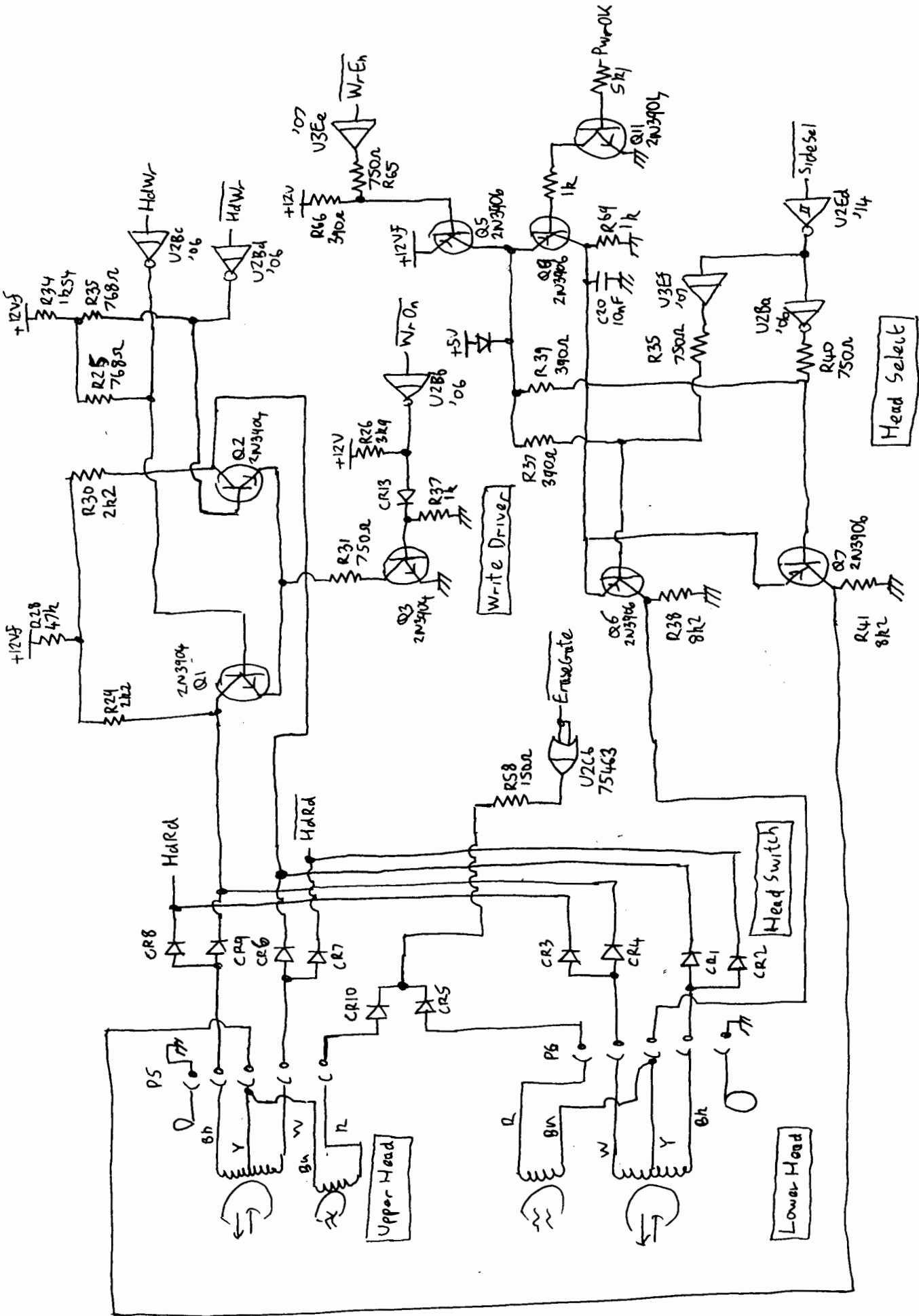


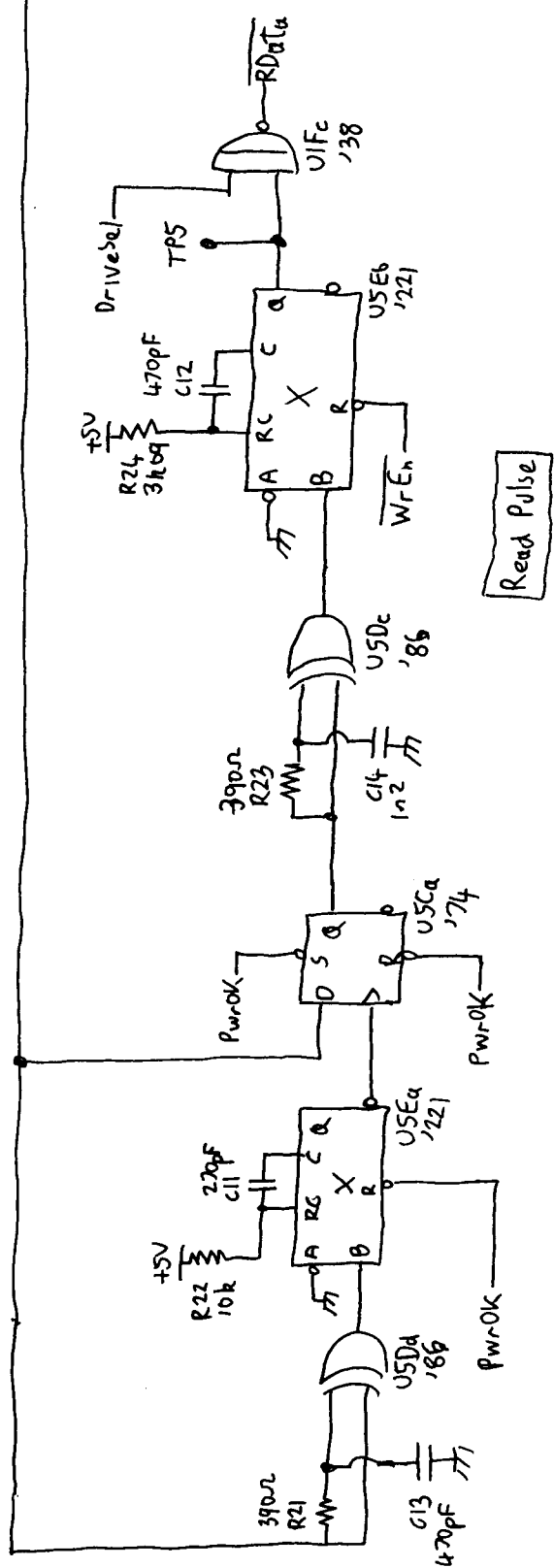
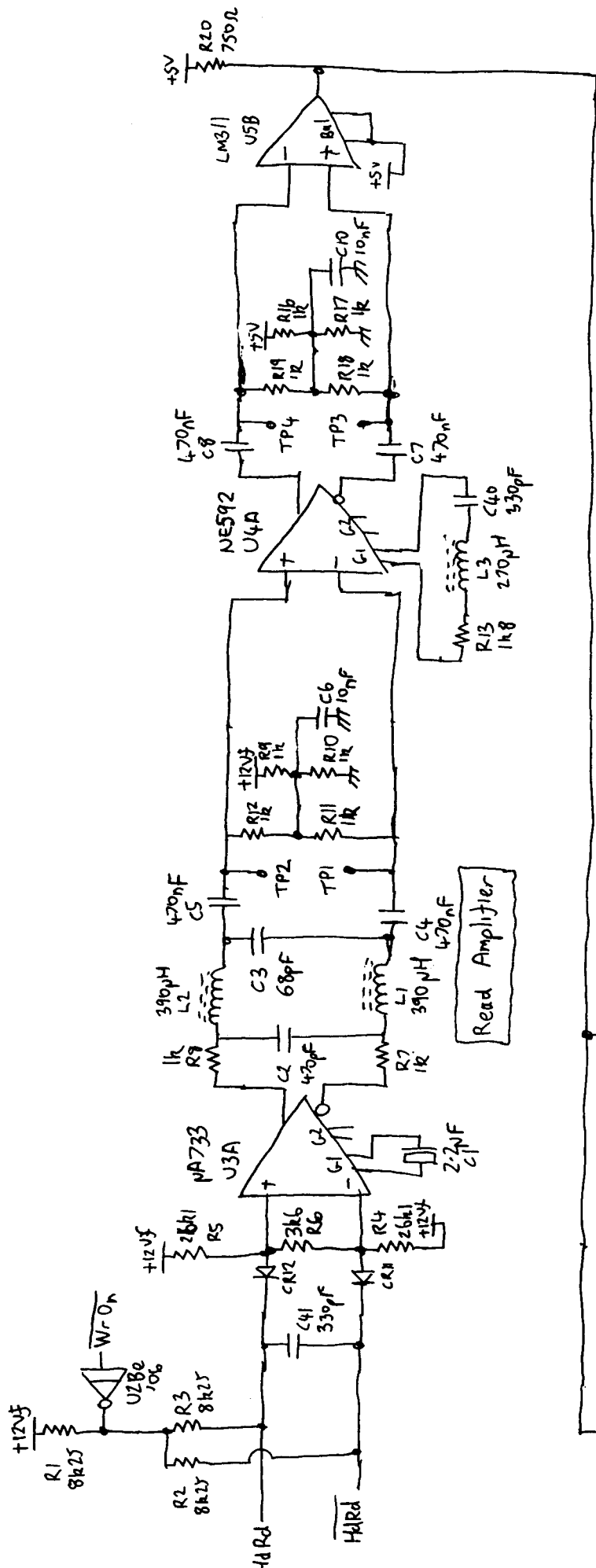


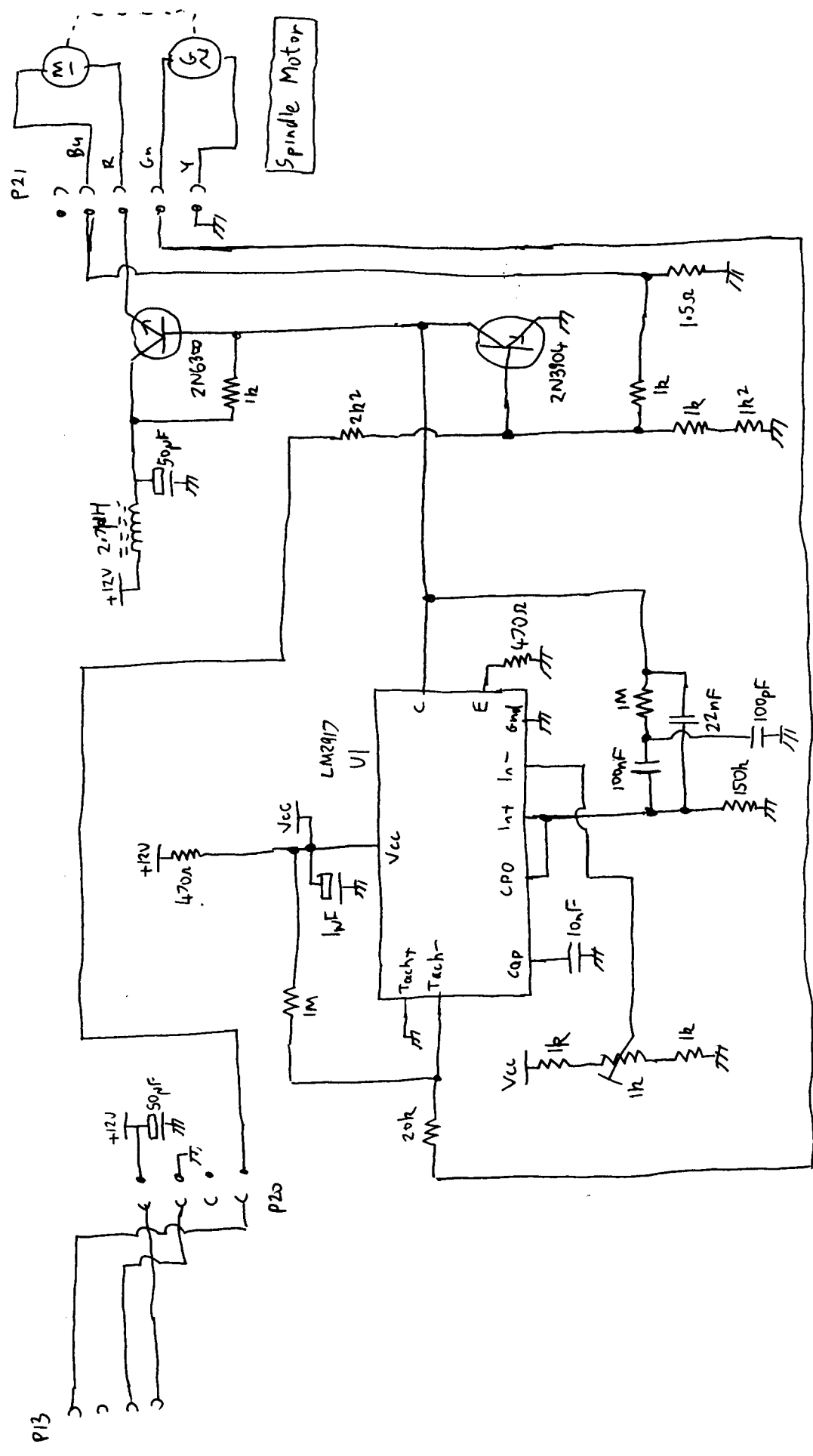
(LED on)
(clamp Arm)



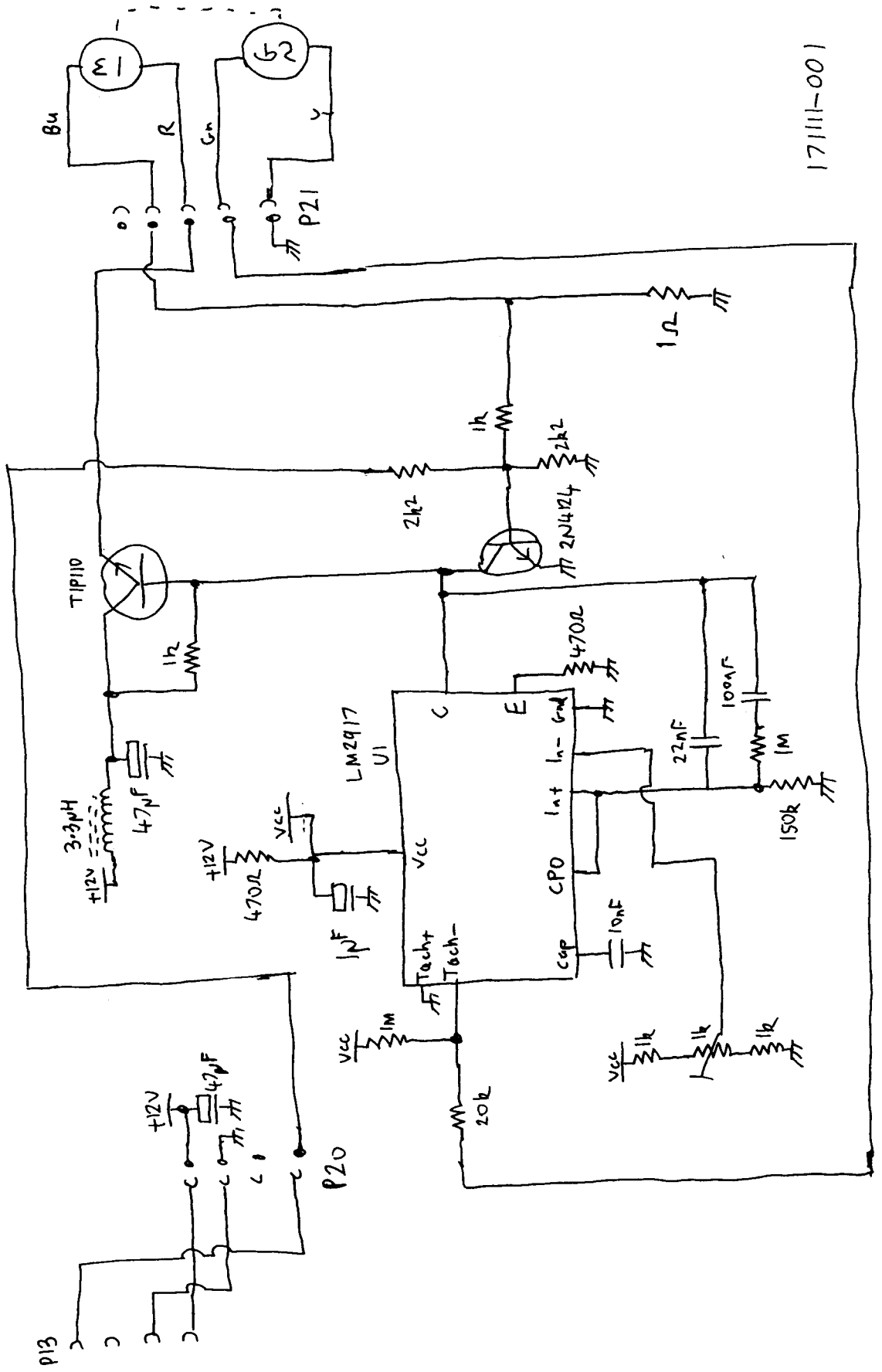








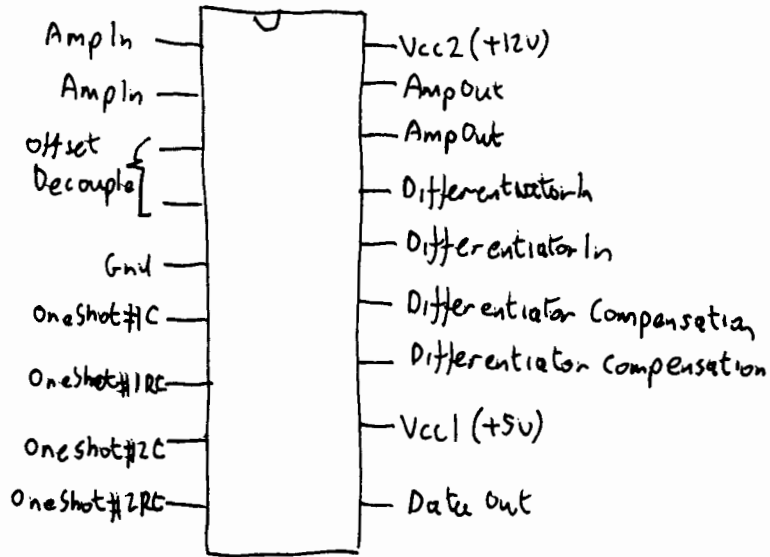
HP9130 Spindle Motor Control PCB 09130-66500



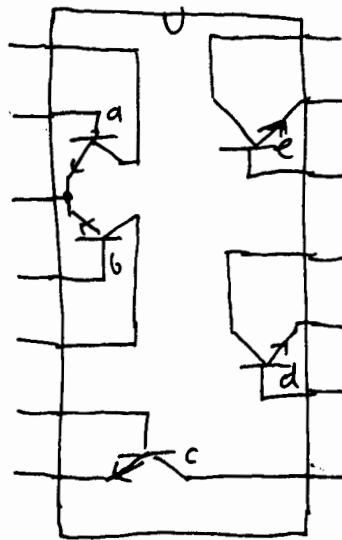
17111-001

HP9130 Spindle Motor Control PCB

HP9130 (CDC/mPI)

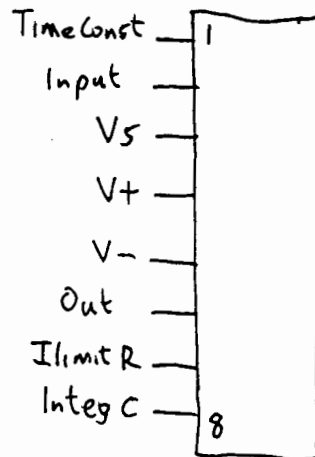


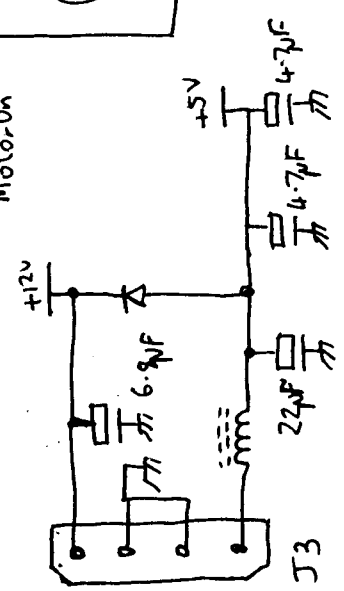
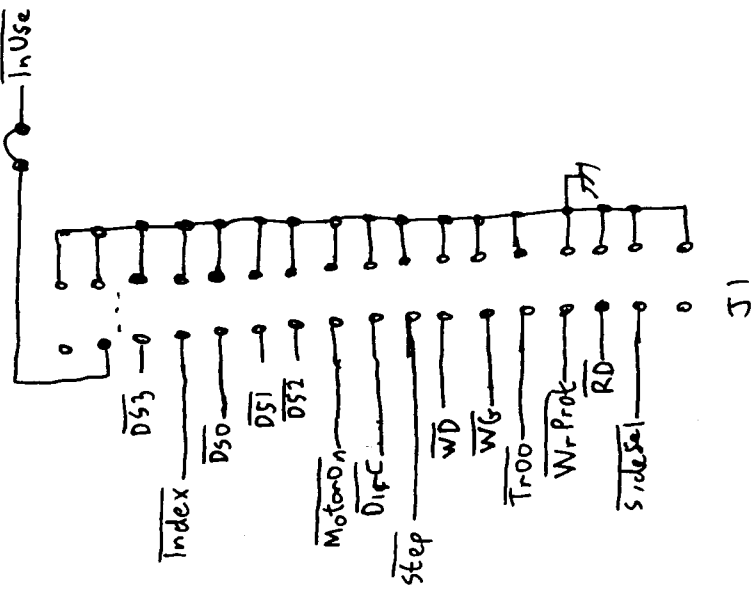
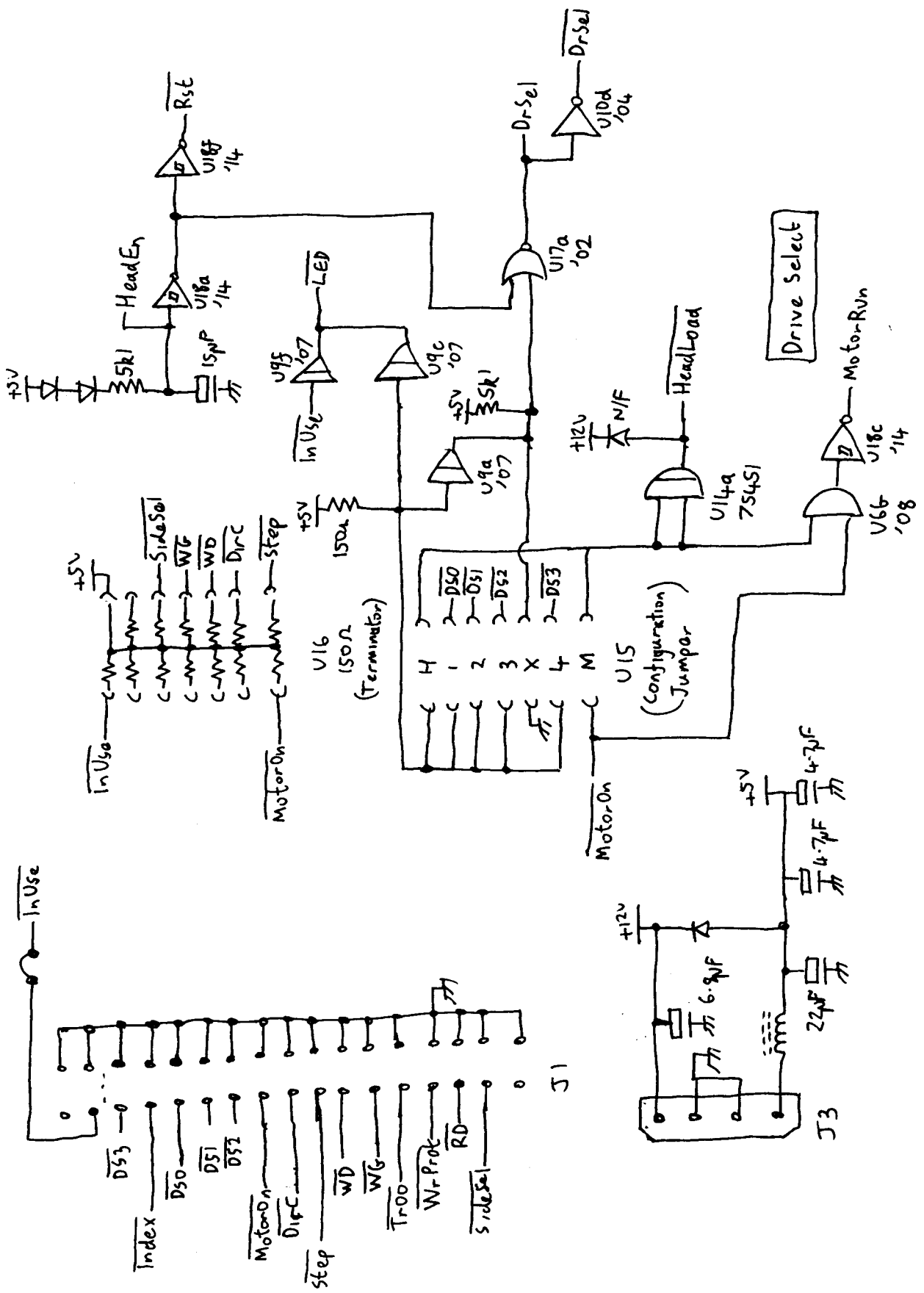
MC3740
Disk Read chain

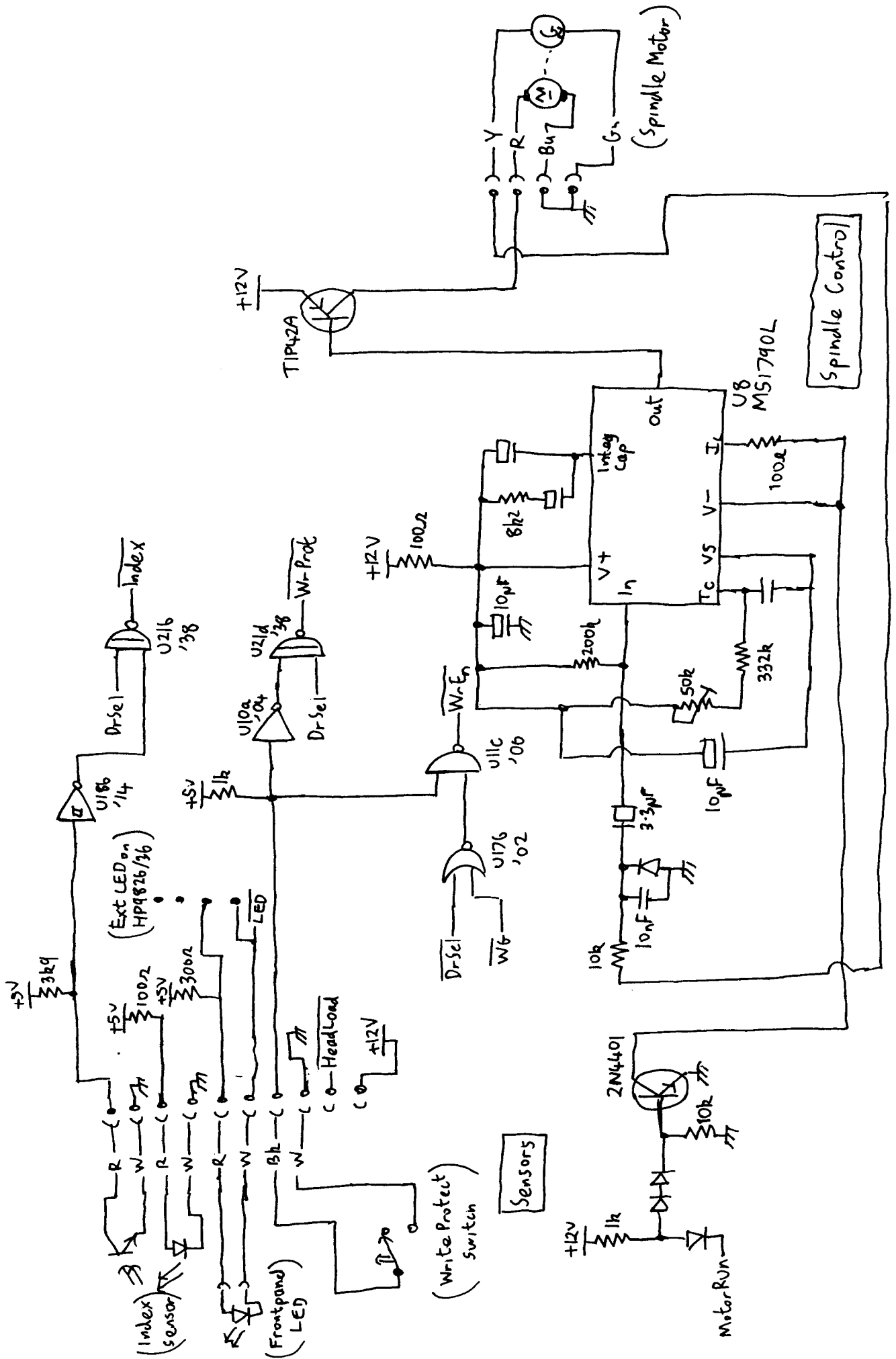


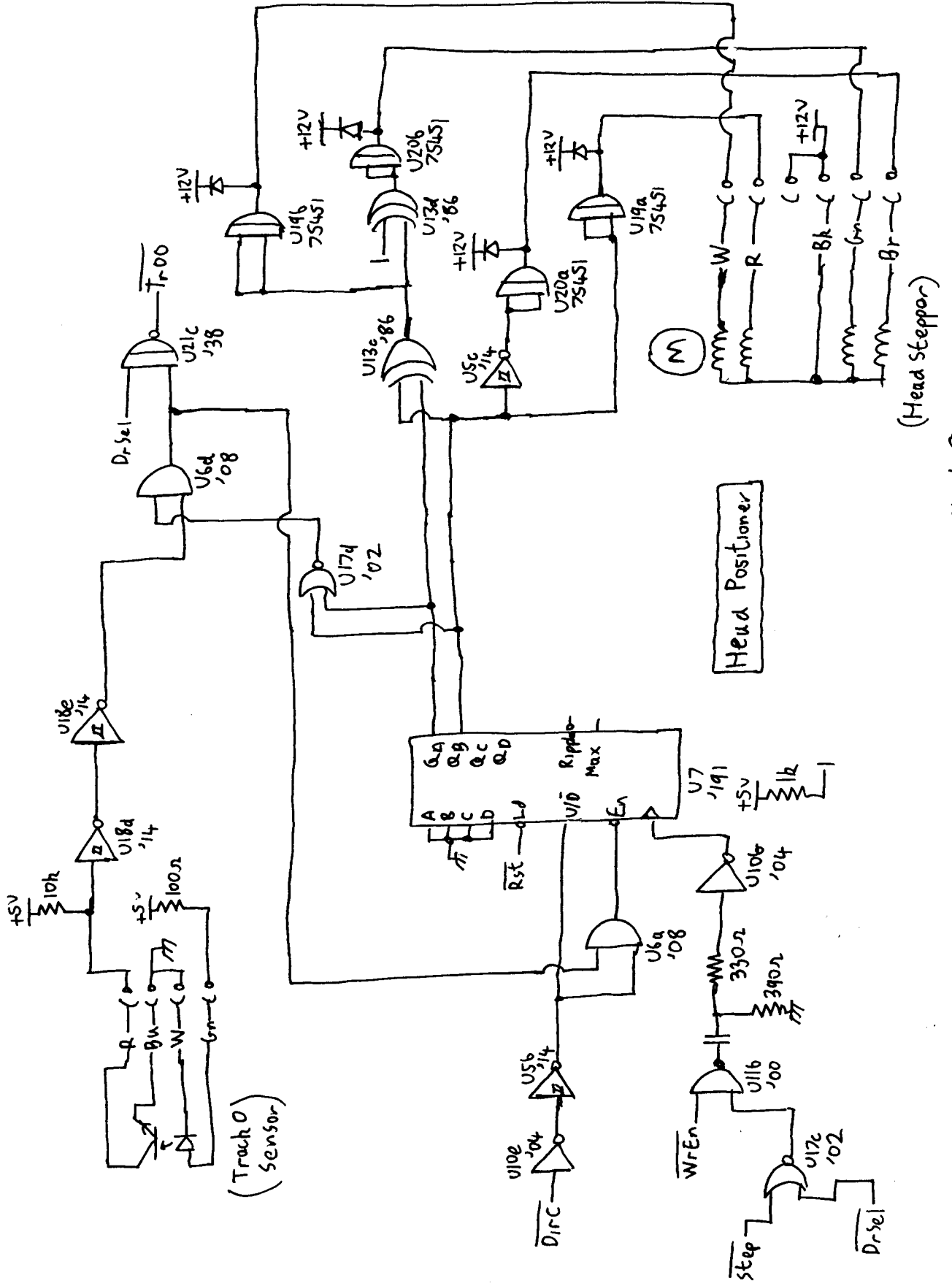
LM3086

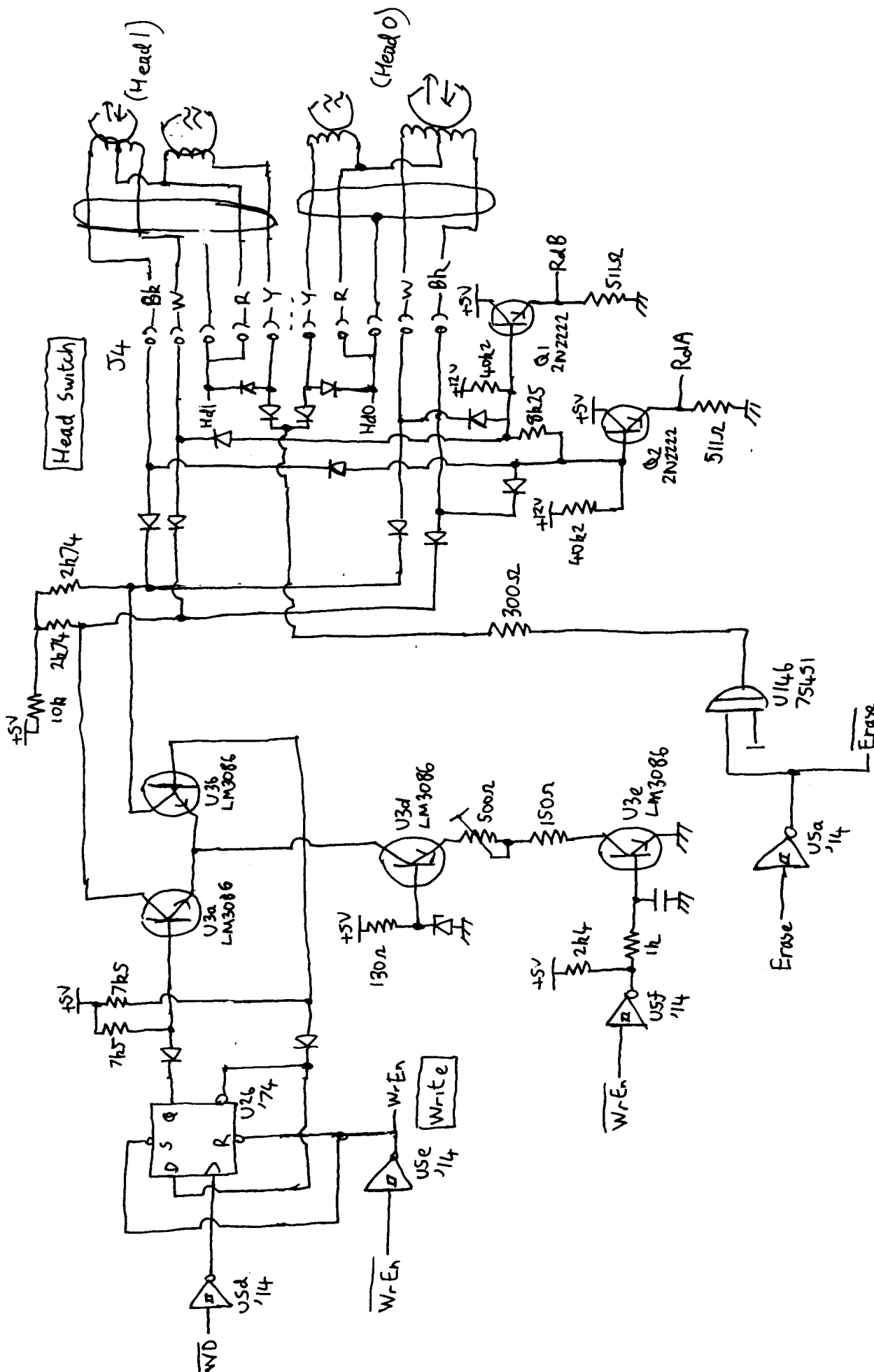
Motor Control
MS1970L

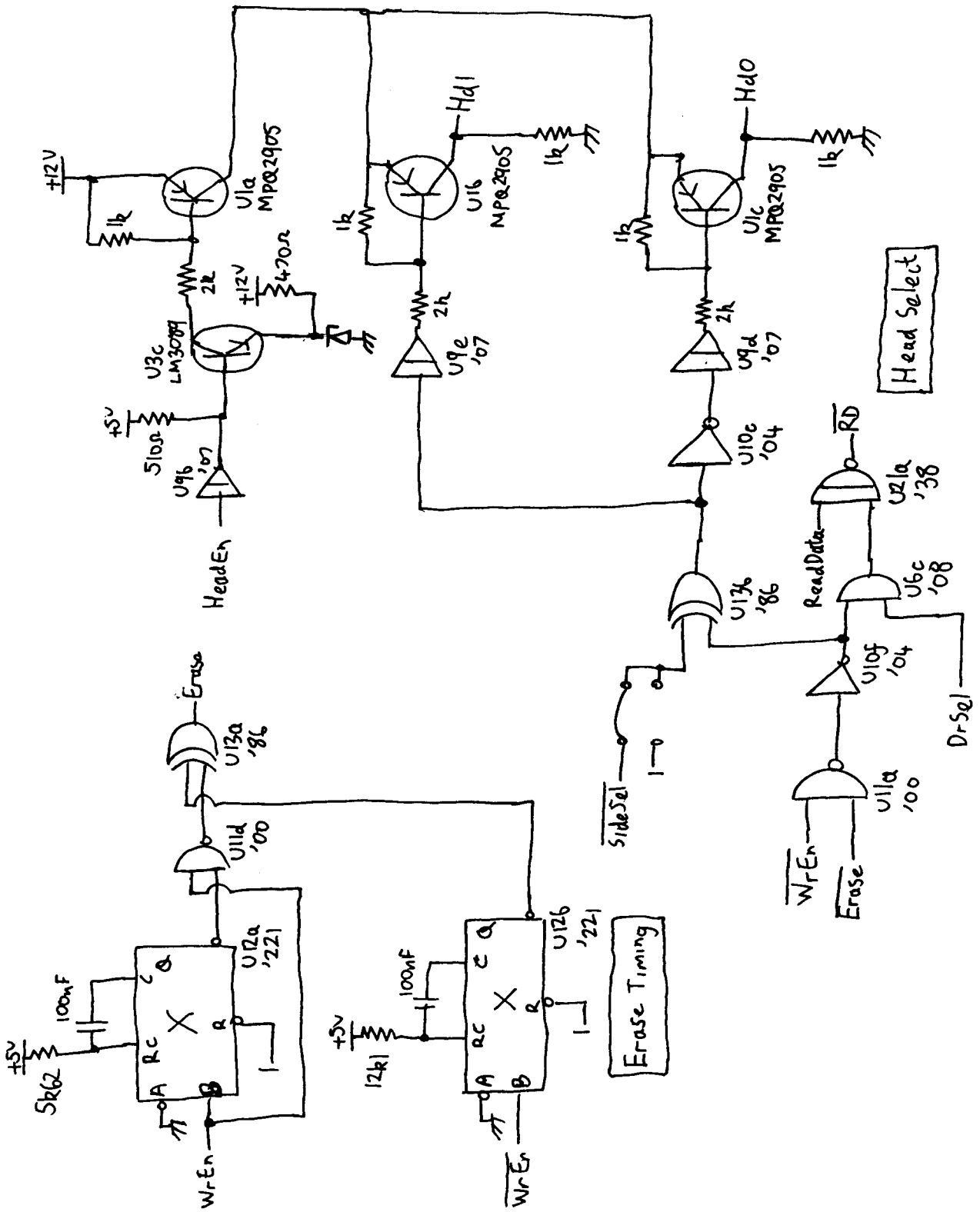


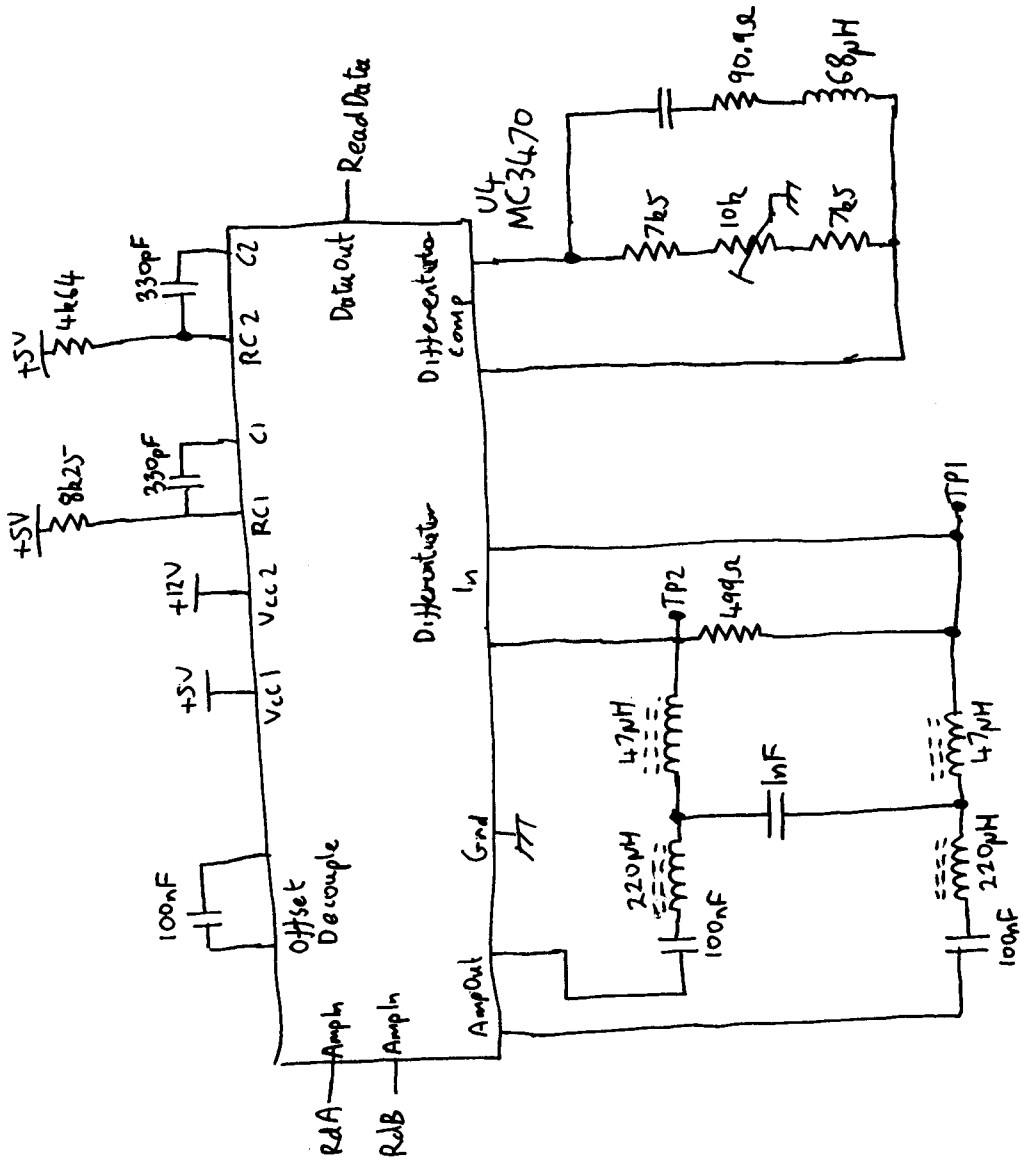




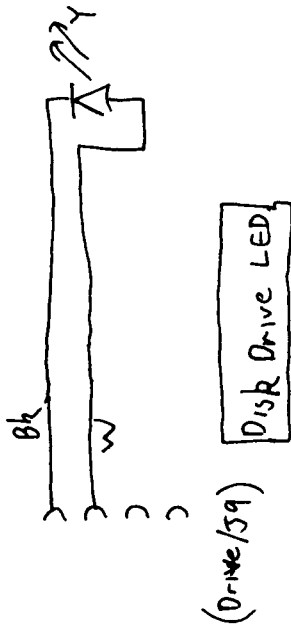
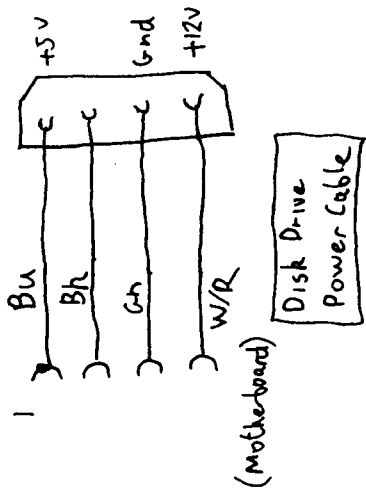


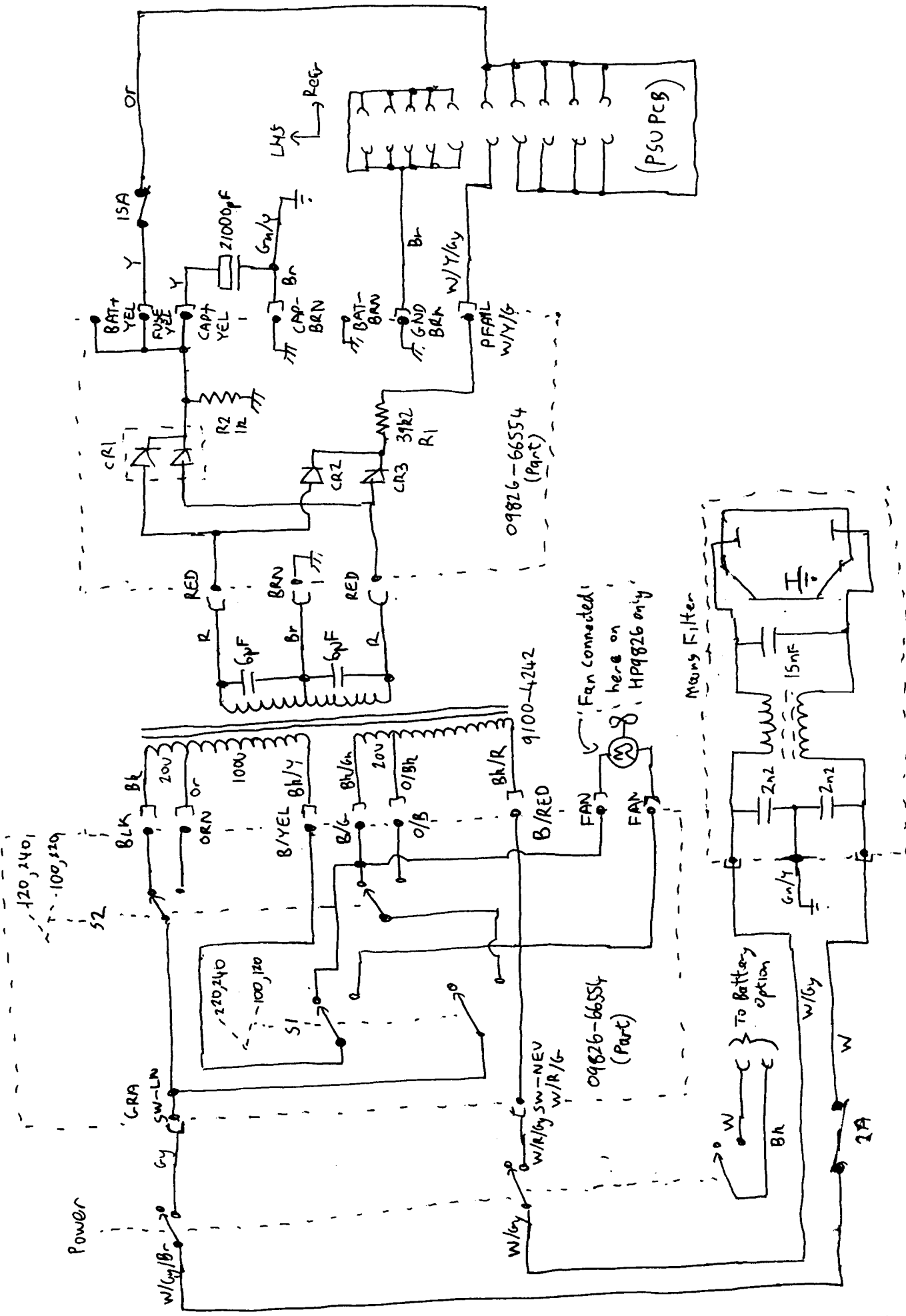




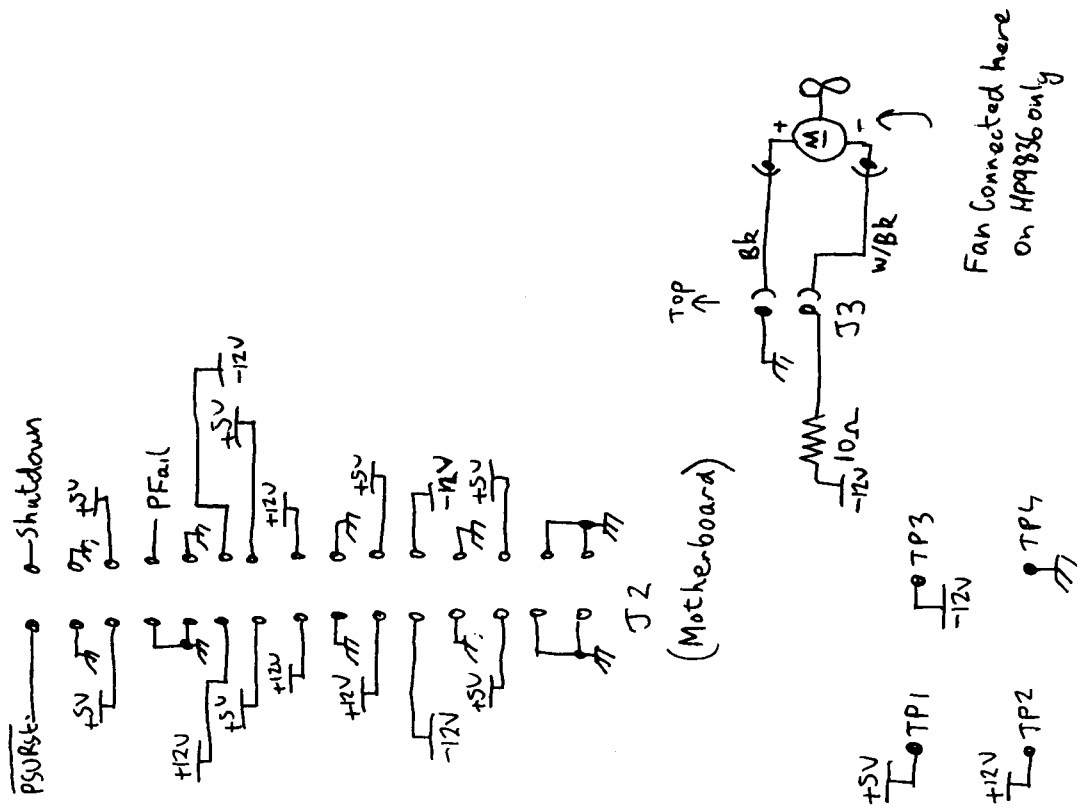
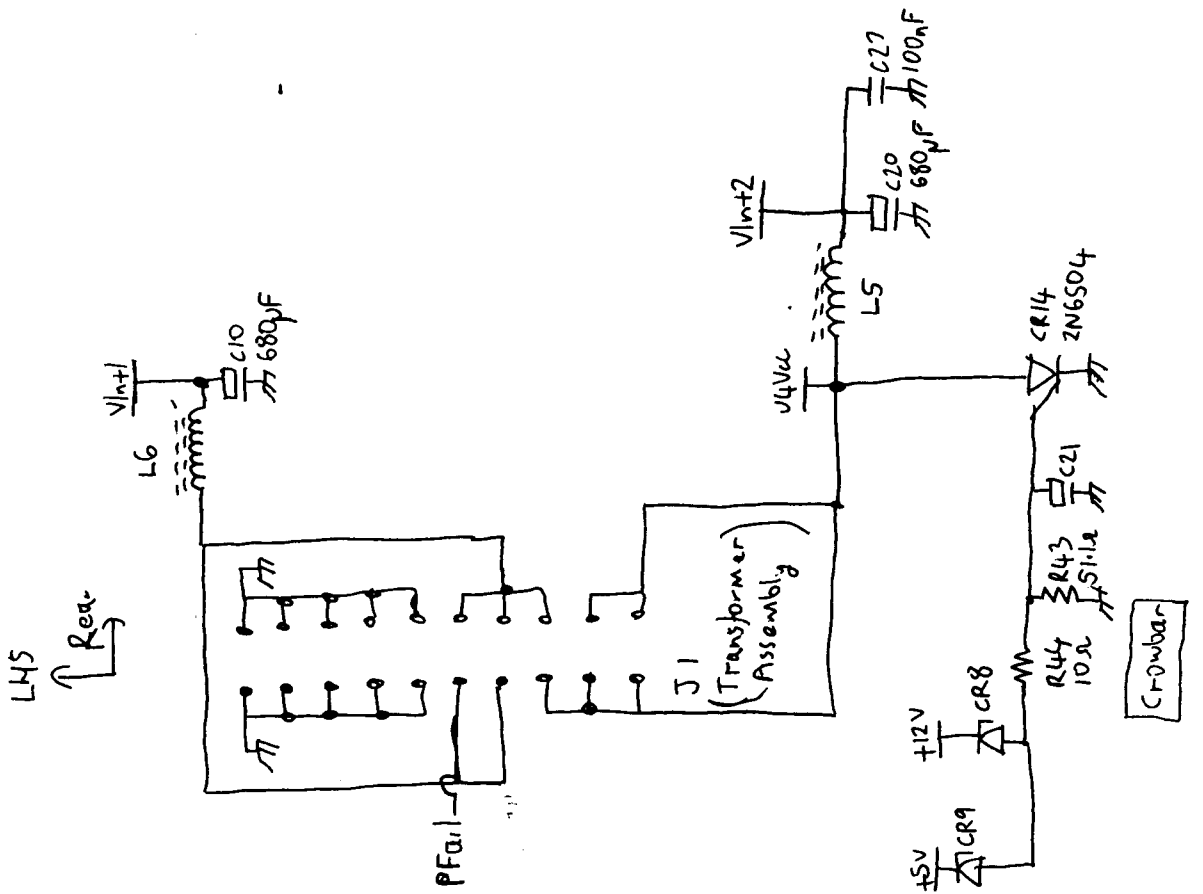


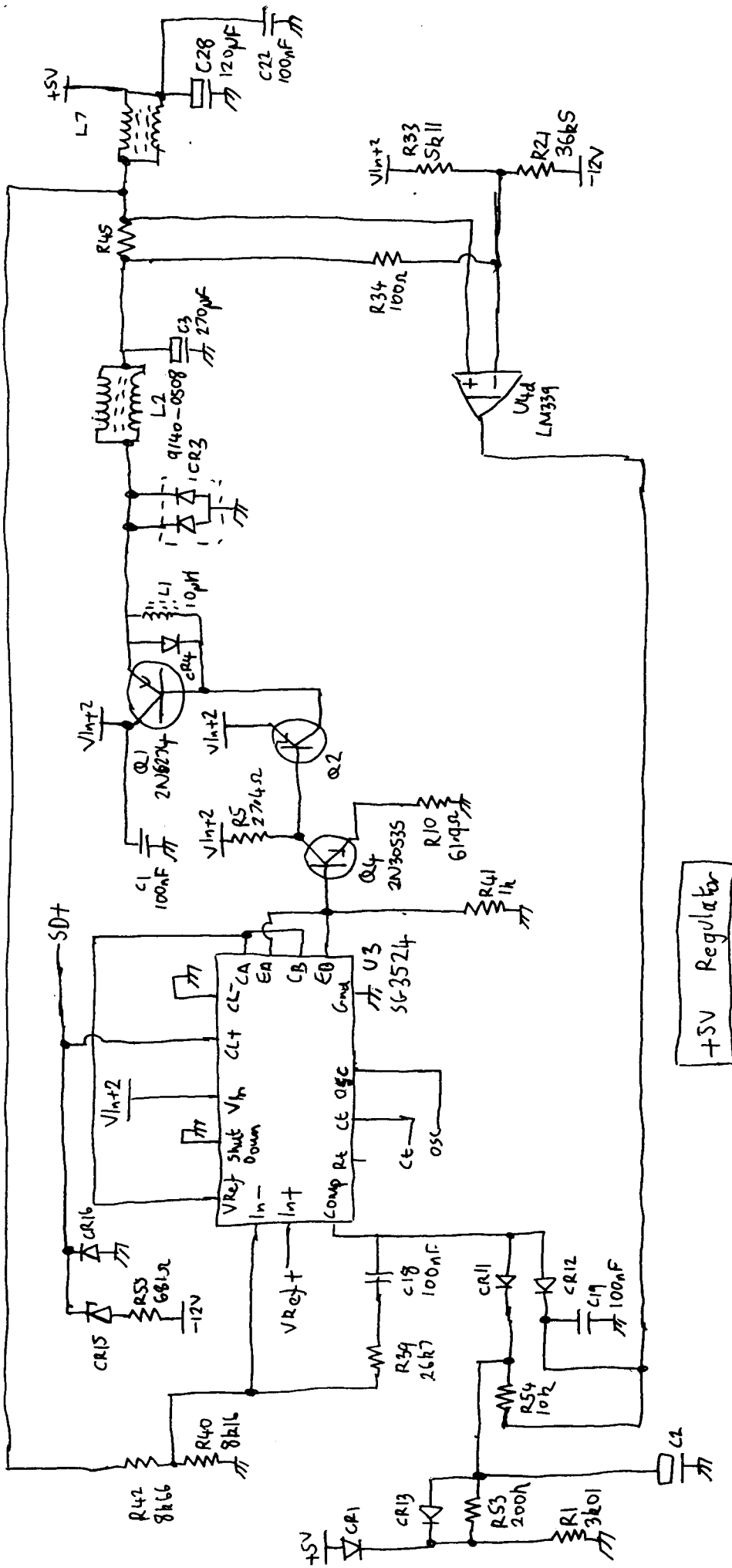
Read



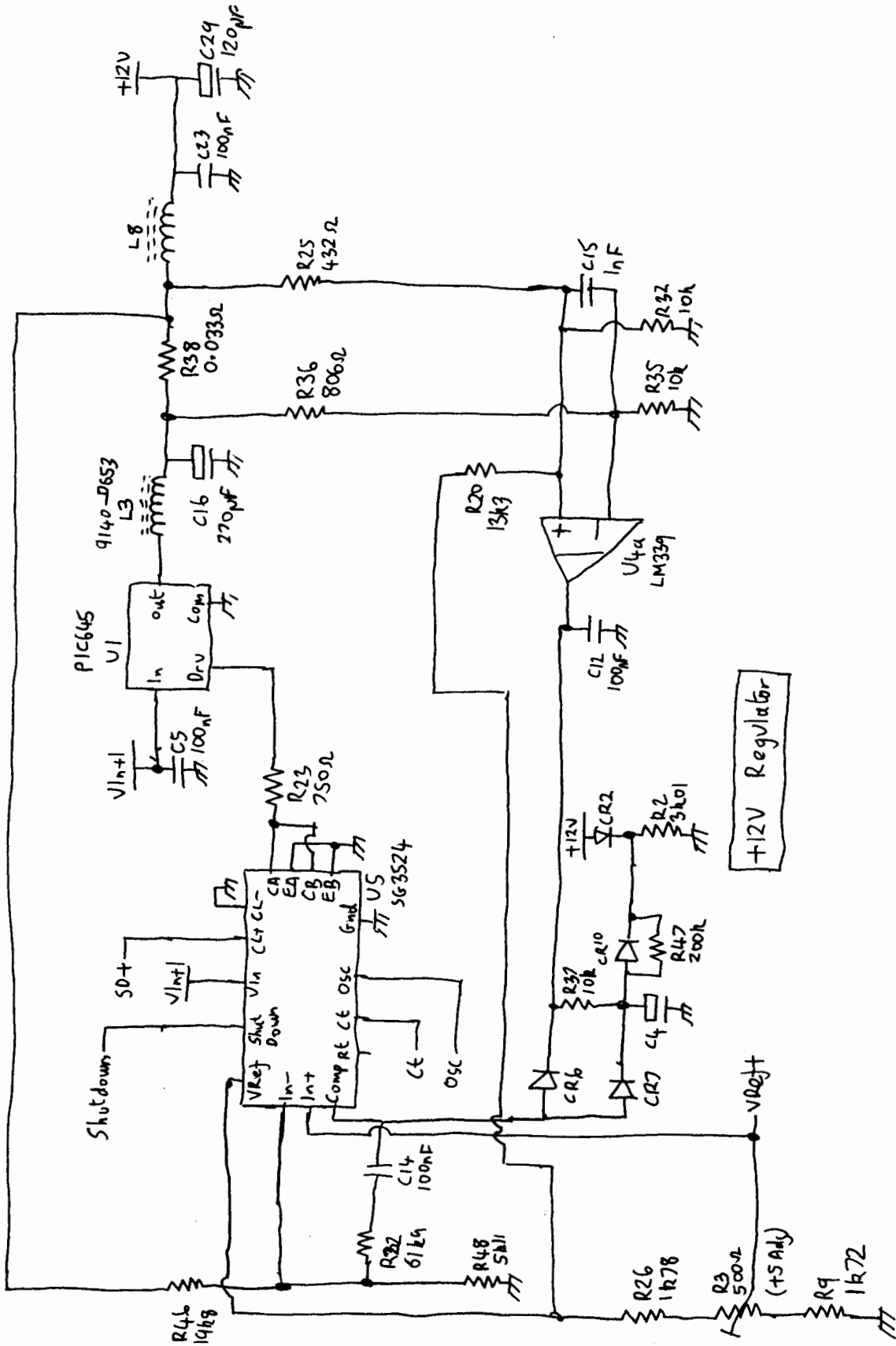


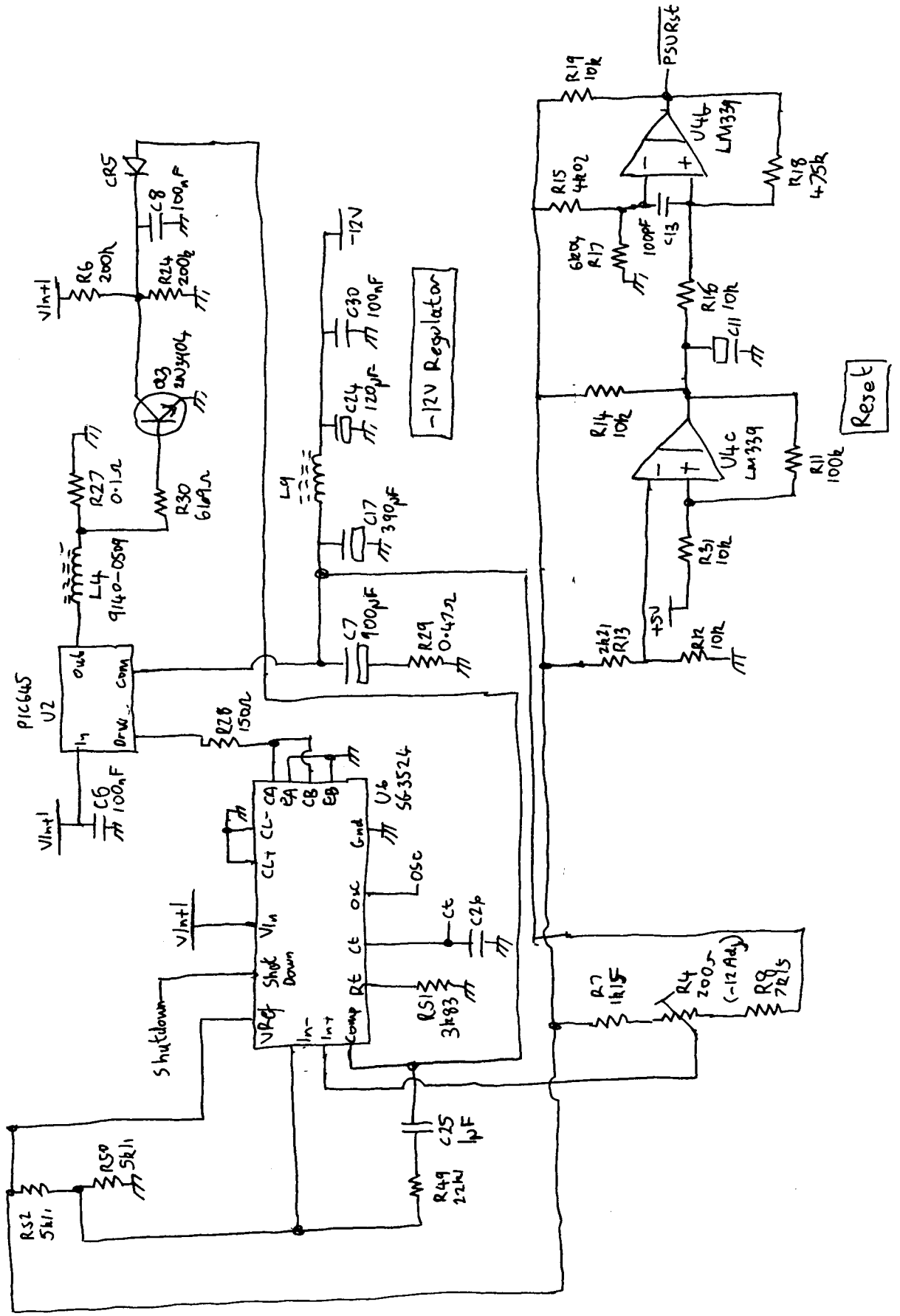
HP9826/HP9836 Transformer wiring

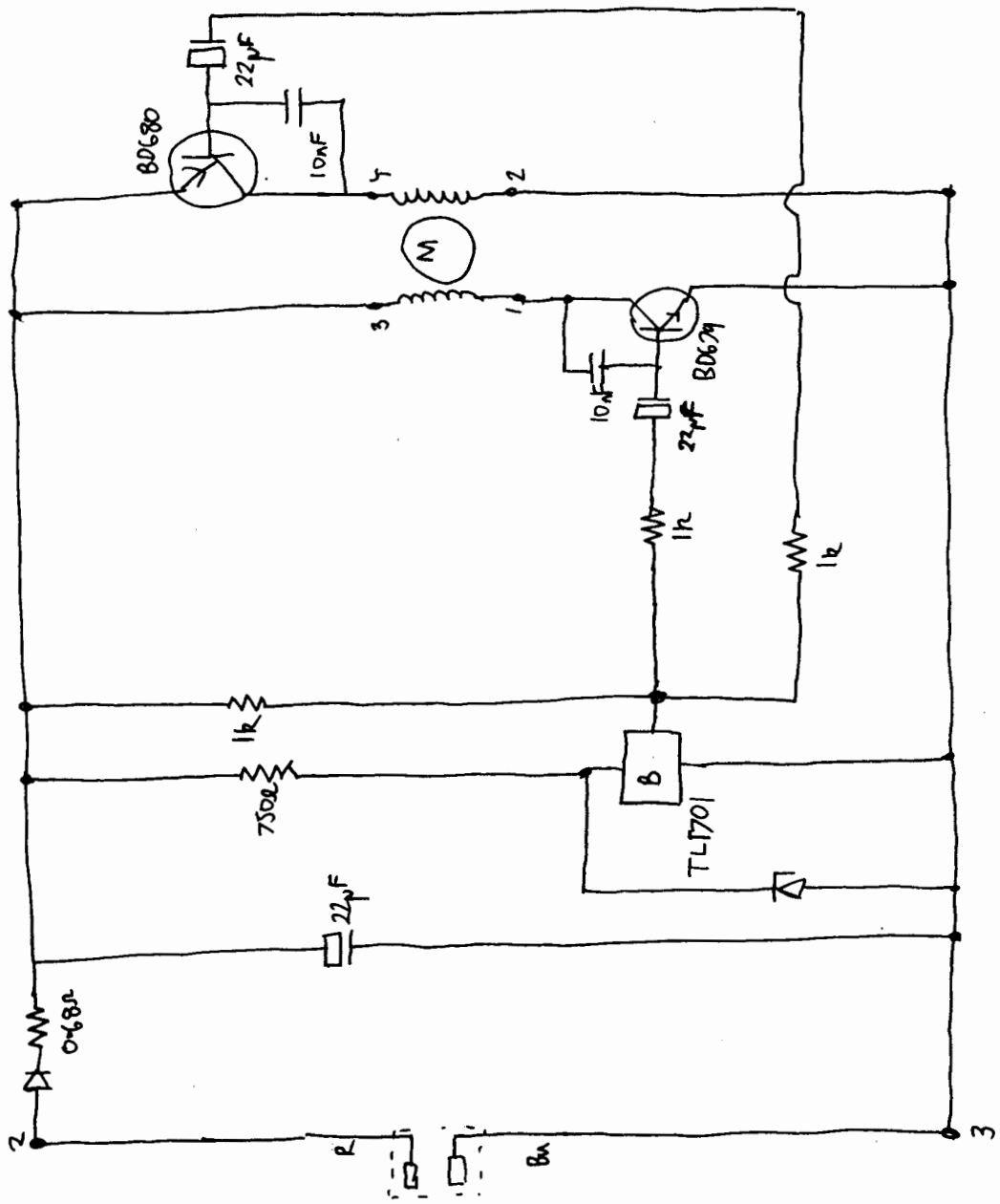




+5V Regulator







HP9836 Fan Papst 6027-030 PCB

R0	K1	R2	K3	K4
R5	K6	K7	K8	K9

↓	↑
←	→

INS LN	DEL LN	REGAL
INS CHR	DEL CHR	INP

EDIT	ALPHA	GRAPHICS	STEP
CLR LN	RESULT	PI	ALL CLR/D

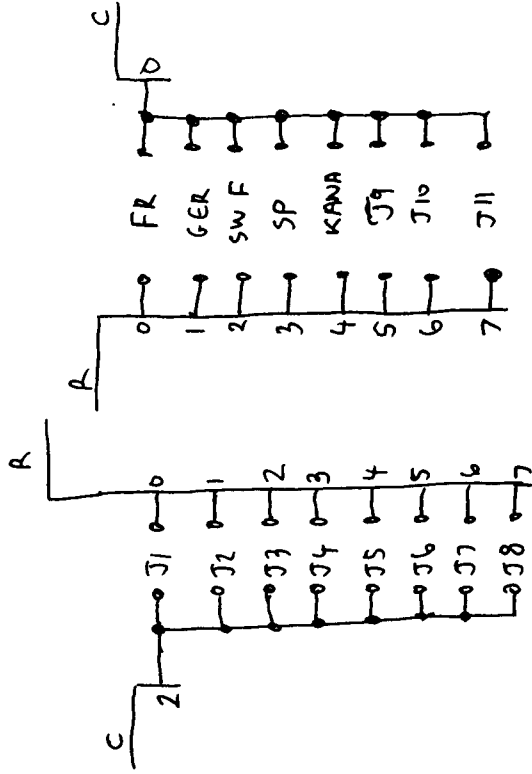
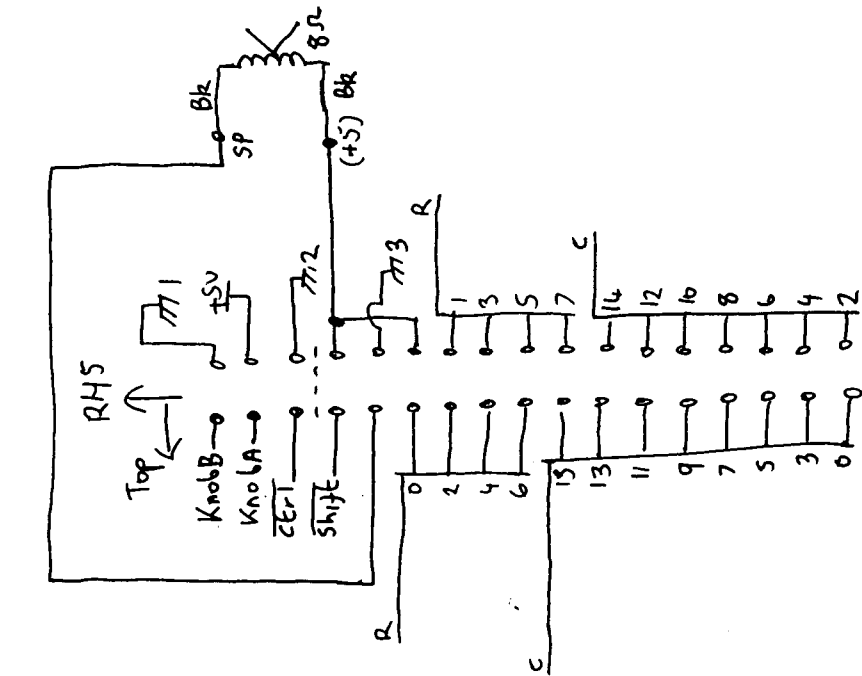
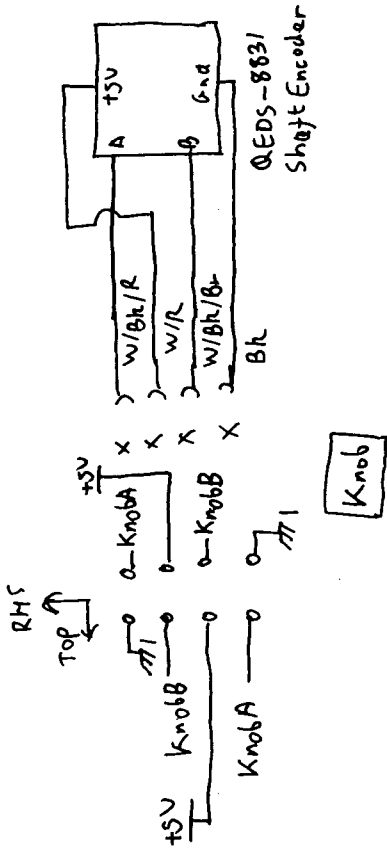
CTRL	!	@	#	\$	%	^	&	*	(	)	_	=	+	BACK SPACE
TAB	Q	W	E	R	T	Y	U	I	O	P	[]	{	}
CAPS LOCK	A	S	D	F	G	H	J	K	L	;	"	'	ENTER	
SHIFT	Z	X	C	V	B	N	M	,	>	?	/	SHIFT		

Space Bar

PAUSE
RUN
CONTINUE
EXECUTE

E	()	^
7	8	9	/
4	5	6	*
1	2	3	-
∅	.	J	+

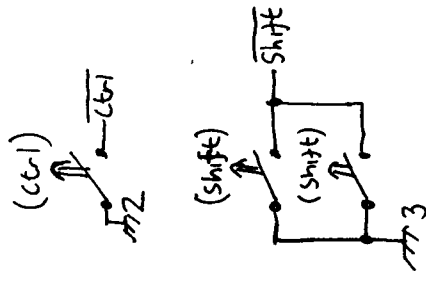
HP 9826 / HP 9836 Key caps



Note: on sheet 2



Config Links



Shift/control keys

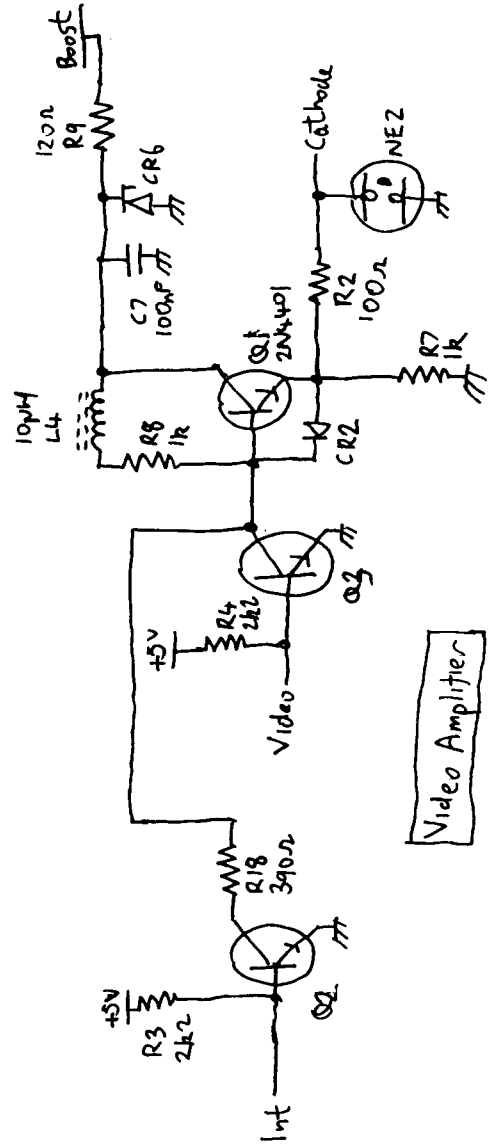
(To Motherboard / J11)

C	3	4	5	6	7	8	9	10	11	12	13	14	15
0	CAPS Lock	k3	INSLN	EDIT	PAUSE	N1	N7	! |	( 9	)/	@	A	Z
1	TAB Δ	k4	DELN	ALPHA	ENTER	N2	N8	@ 2	) ϕ	> .	w	S	X
2	k0	\blacktriangledown	RECALL	GRAPHICS	CONTINUE	N3	N9	# 3	=	? , /	E	D	C
3	k1	\blacktriangle	INSCHR	STEP	EXECUTE	N-	N/	\$ 4	+ -	space bar	R	F	V
4	k2	k8	DEL CHR	CLR LN	N \emptyset	N4	NE	% 5	{ [	O	T	G	B
5	k5	k9	CLR \rightarrow END	RESULT	N \bullet	N5	N(	^ 6	3]	P	Y	H	N
6	k6	\blackleftarrow	BACK SPACE	PRALL	NJ	N6	N)	& 7	: ;	K	U	J	
7	k7	\blackrightarrow	RUN	CLR / 0	N+	N*	N^	* 8	" ' ,	L	I	M	

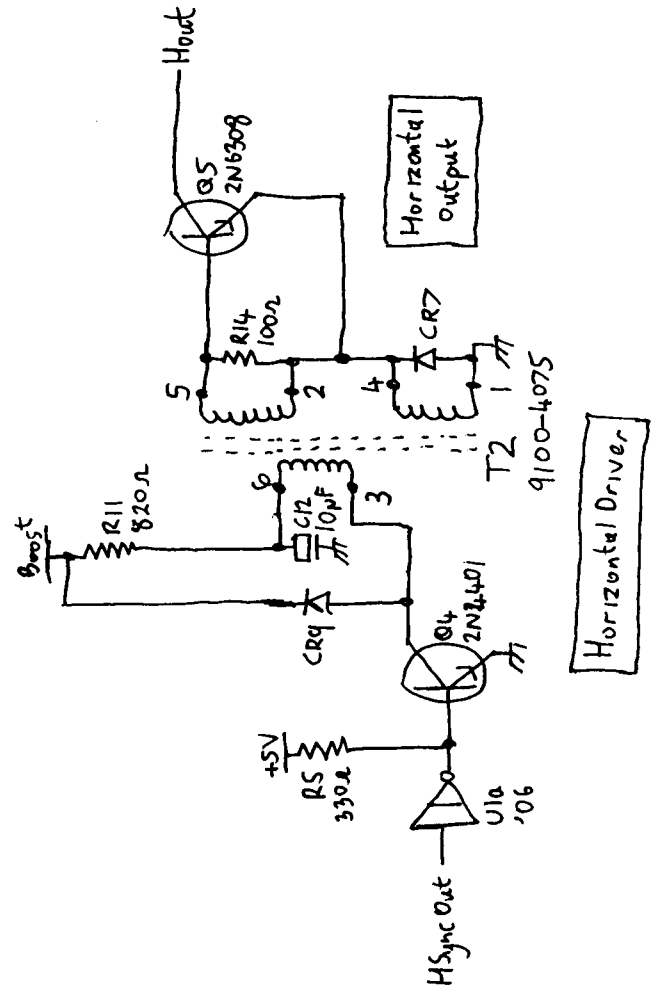
Key Matrix 09826-2653

HP9826/HP9836 Key board Sheet 2

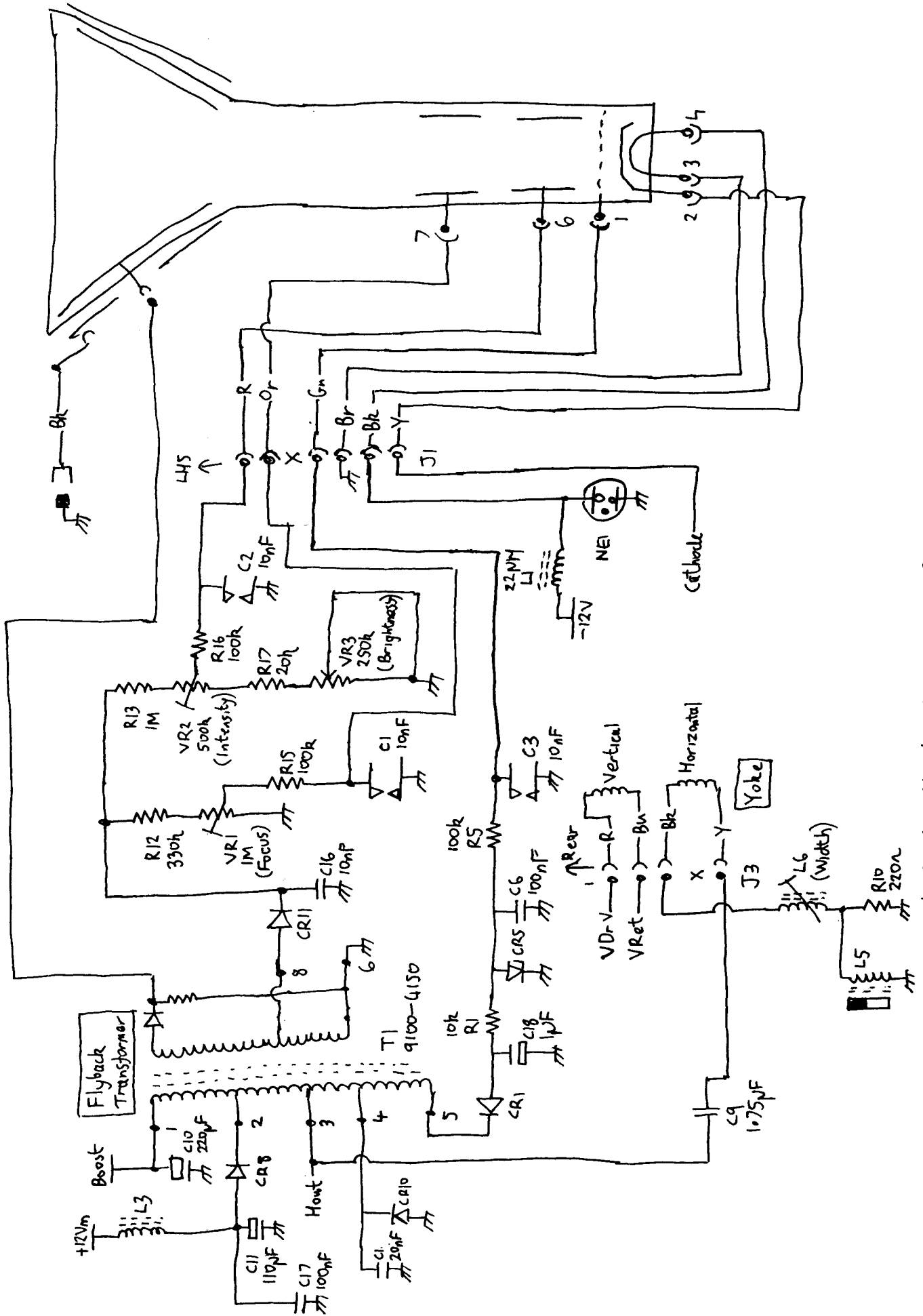
- LHS
- +12V_m
- HSync_{out}
- Int
- Video
- VR_{ret}
- VD_{rv}
- +5V
- 12V
- J2 (Motherboard)
- +5V
- C4 100nF

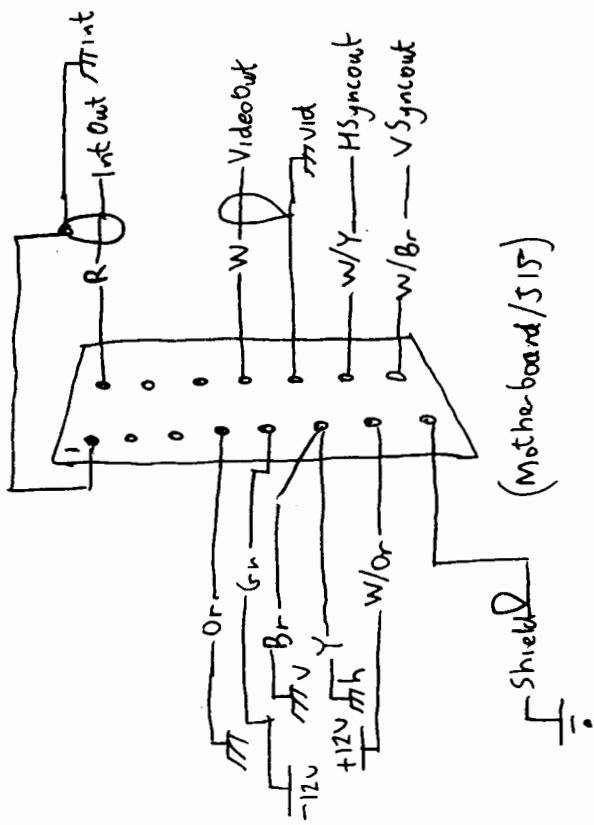
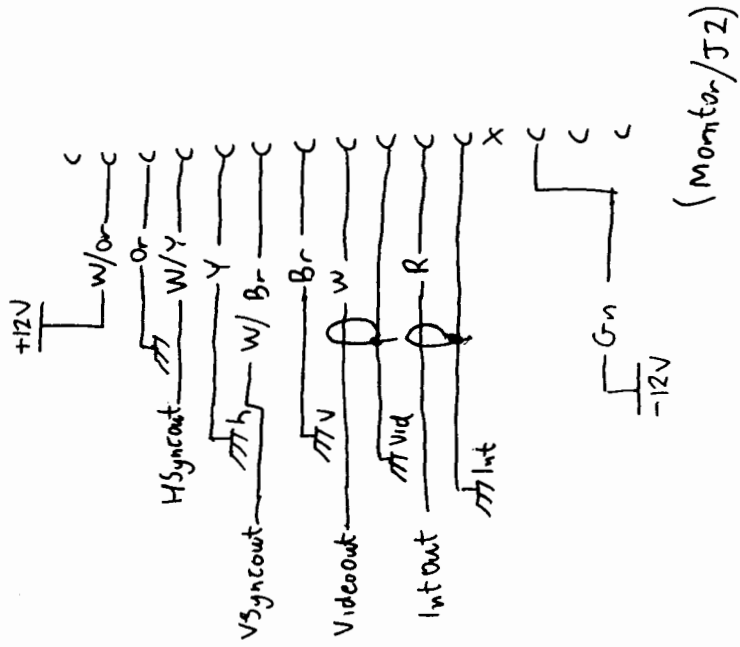


Video Amplifier

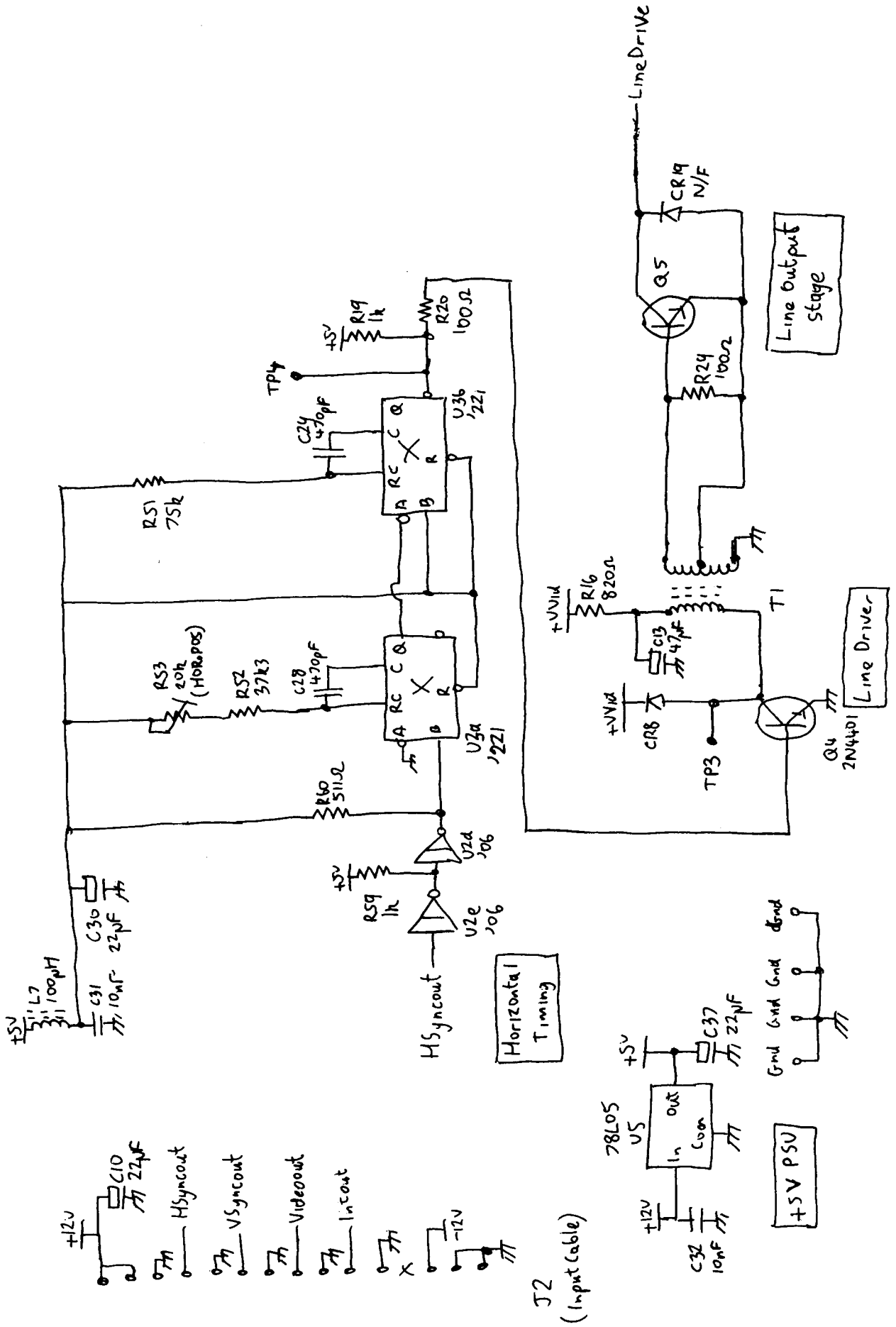


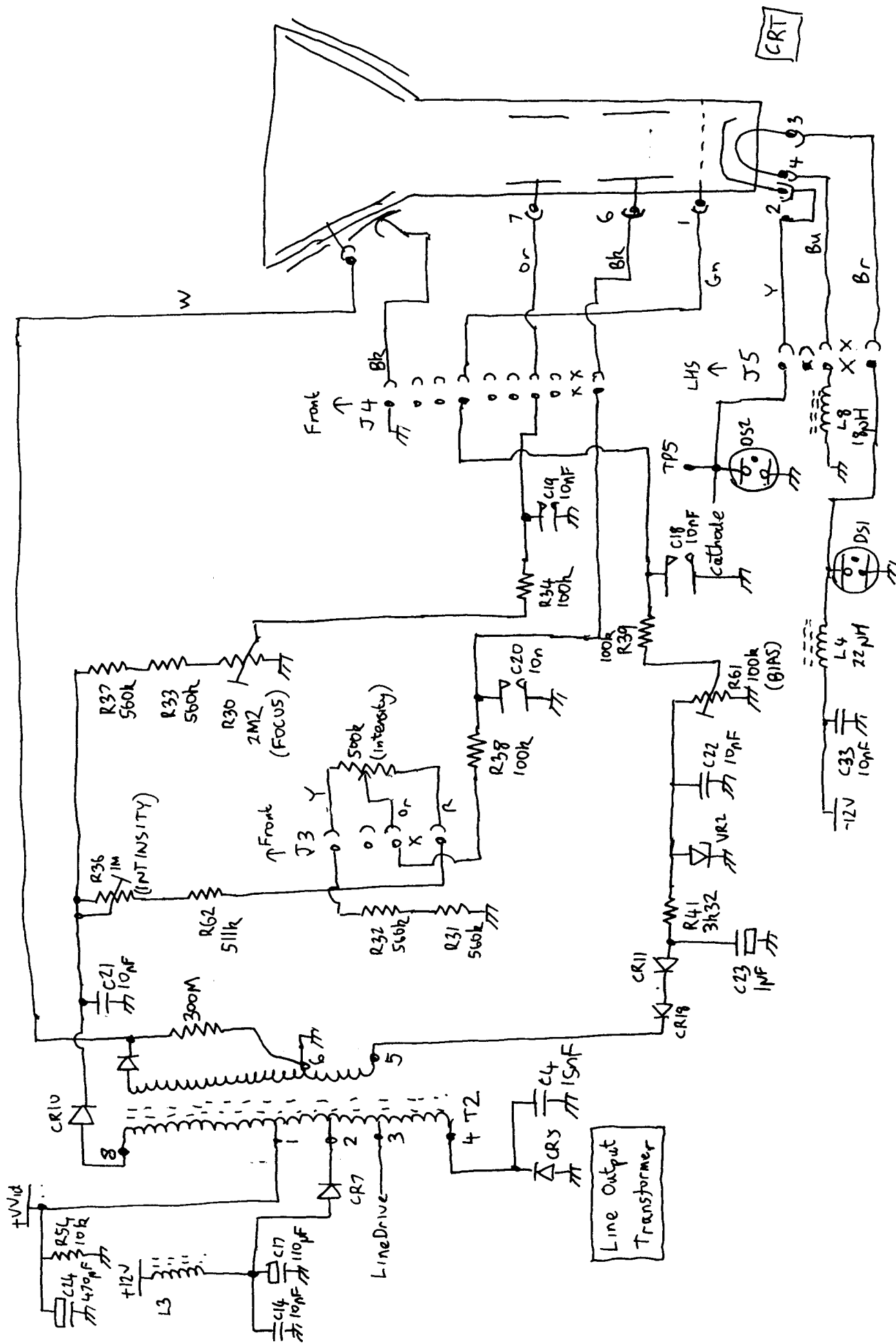
Horizontal Driver

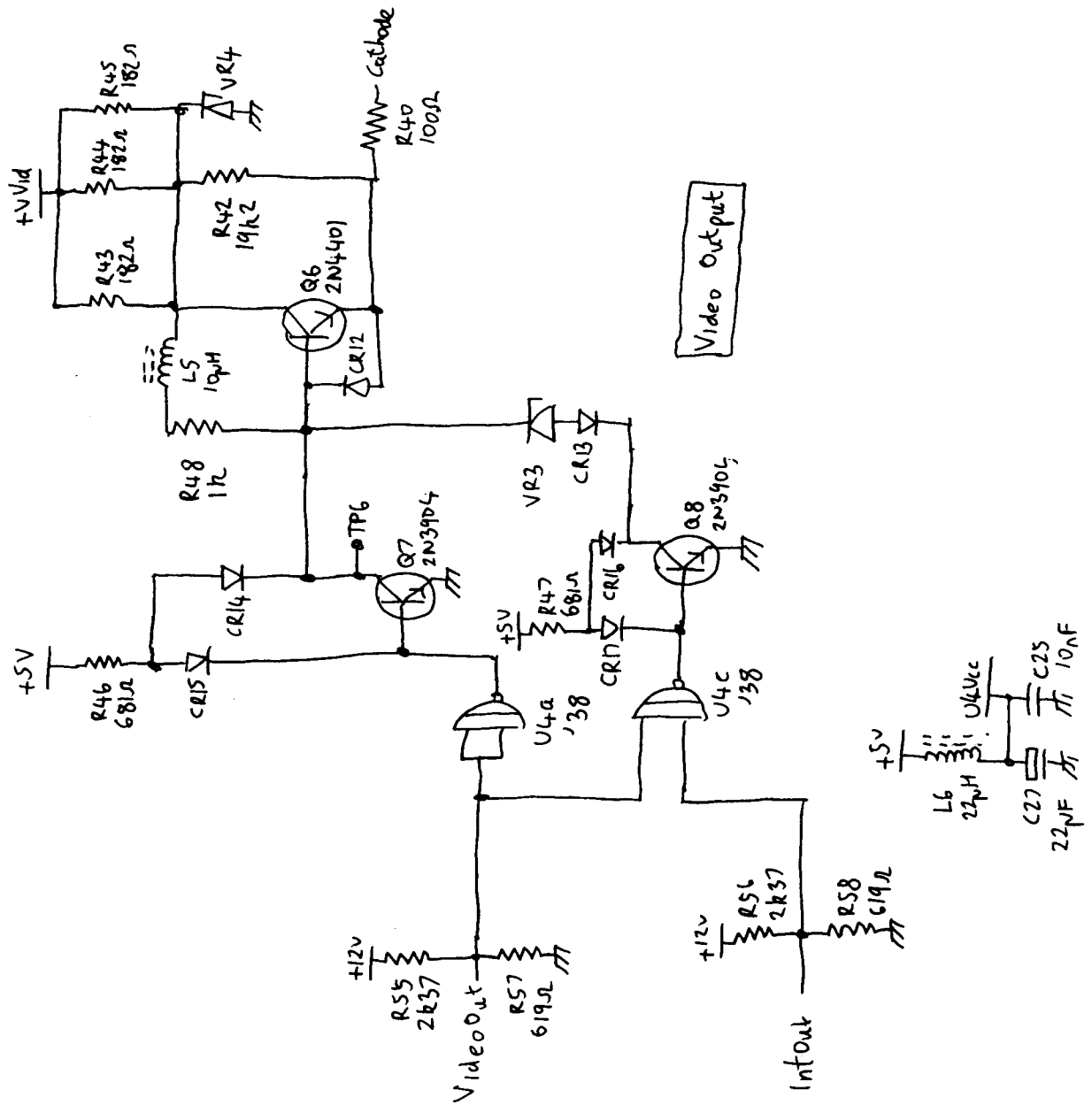


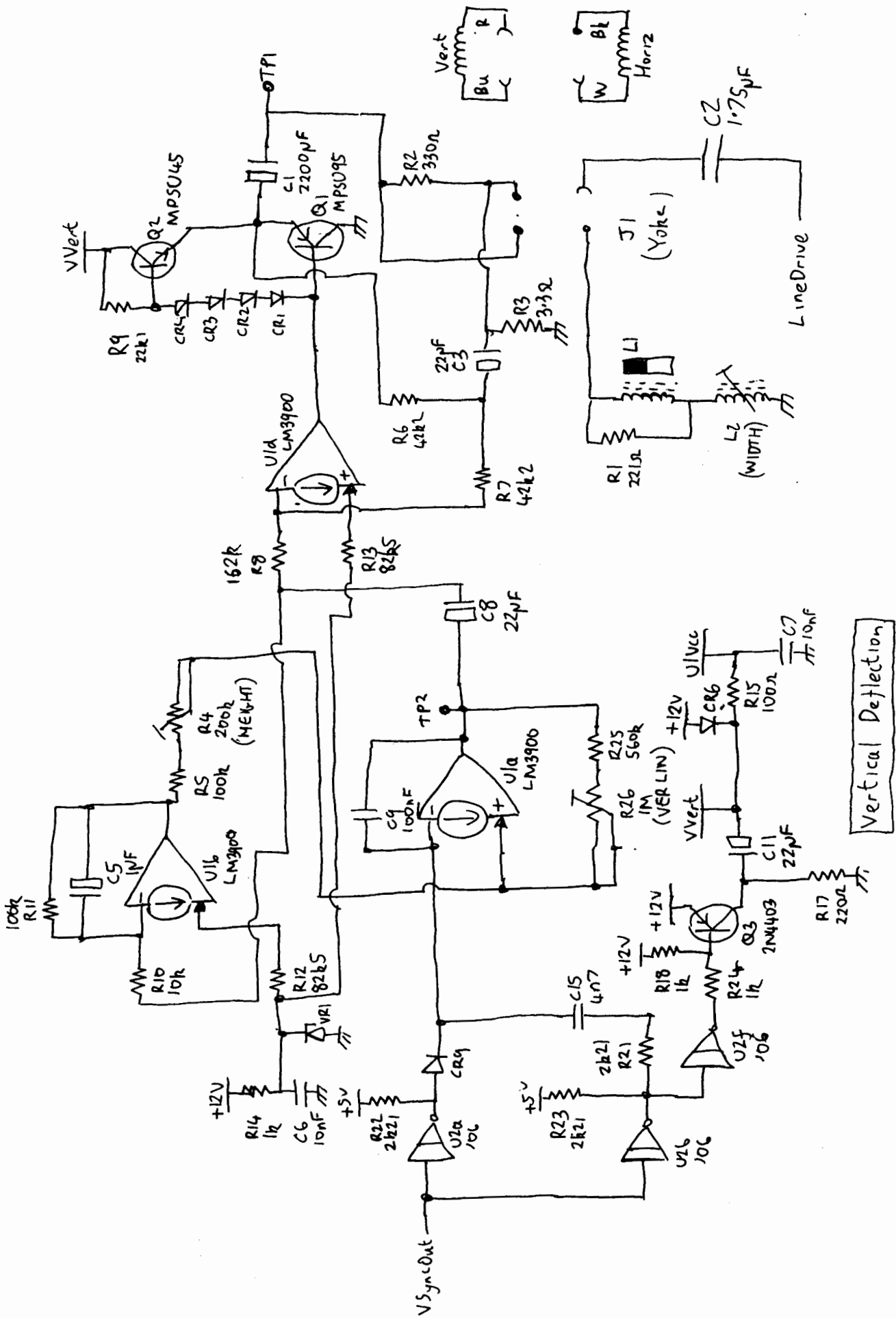


HP 9836 Monitor Cable

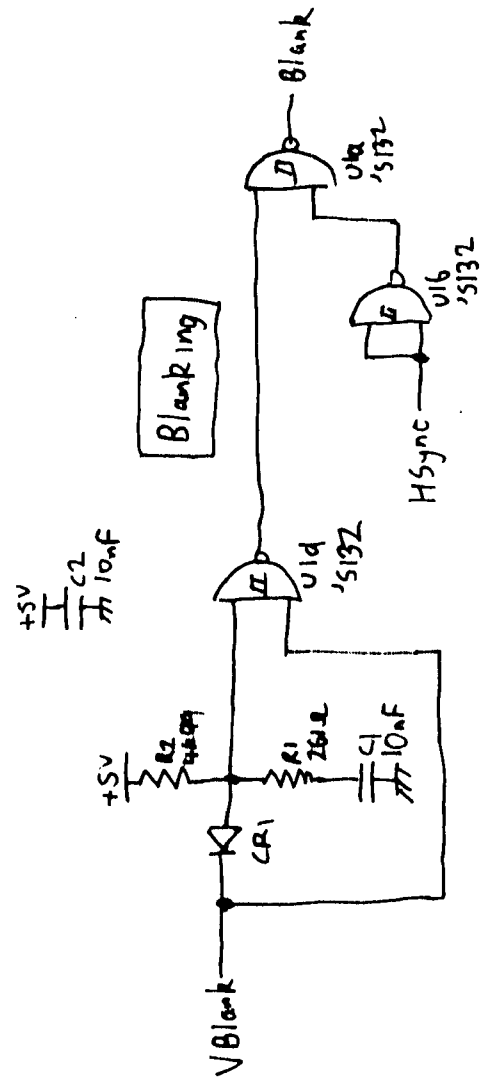
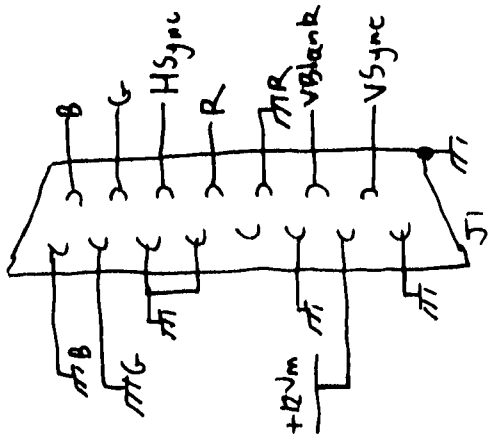
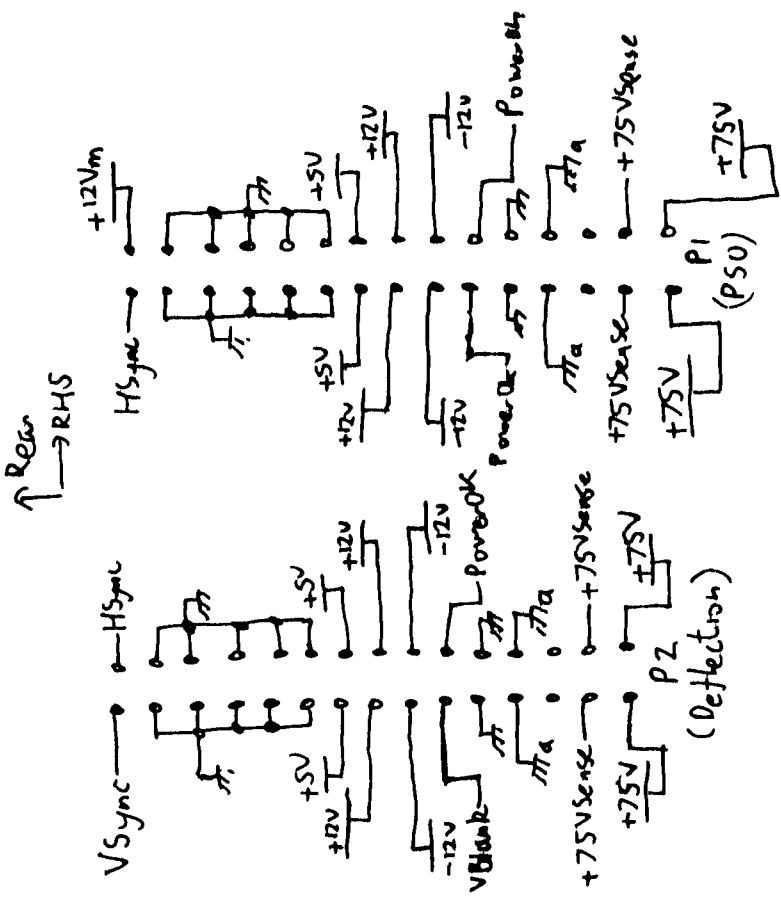
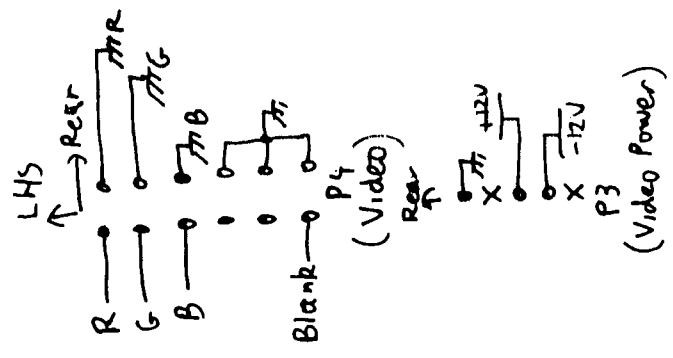


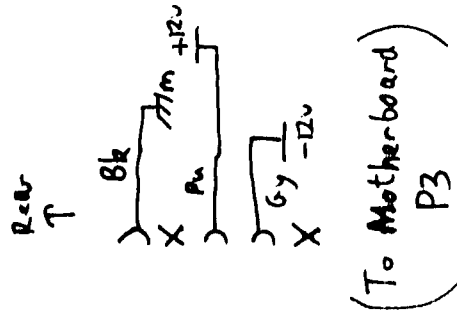
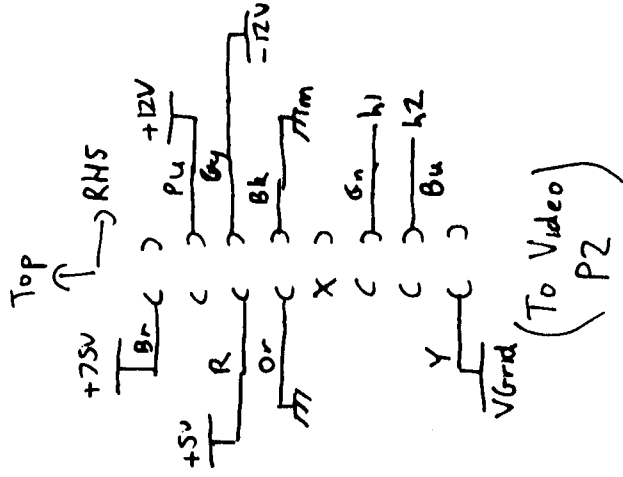
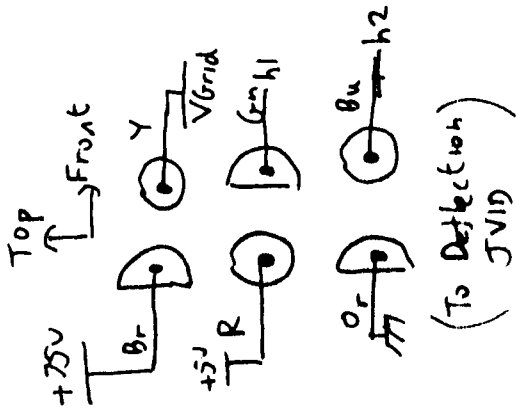


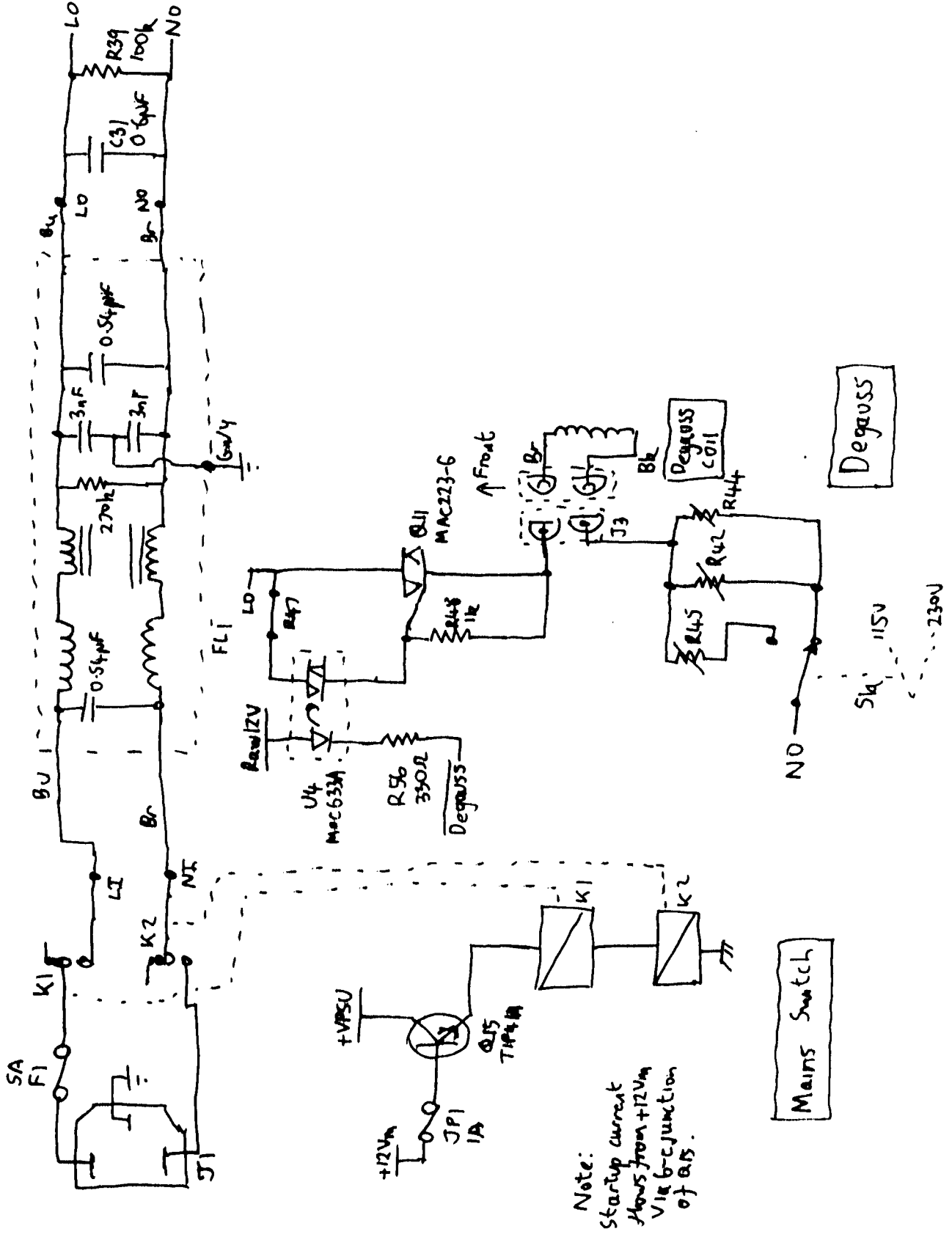




Vertical Deflection





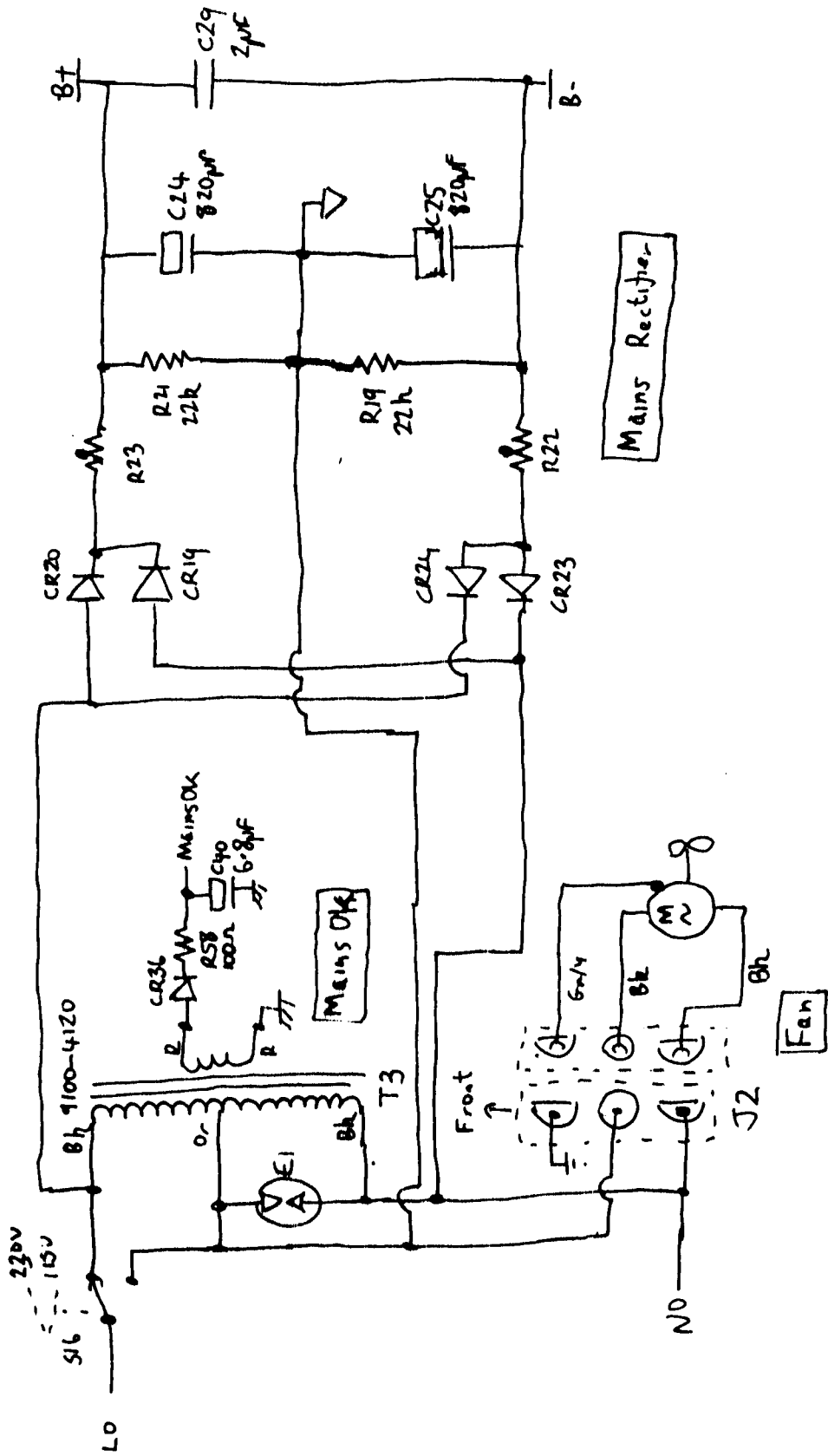


Note:
Startup current
flows from +12Vdc
via b-c junction
of Q15.

Mains Switch

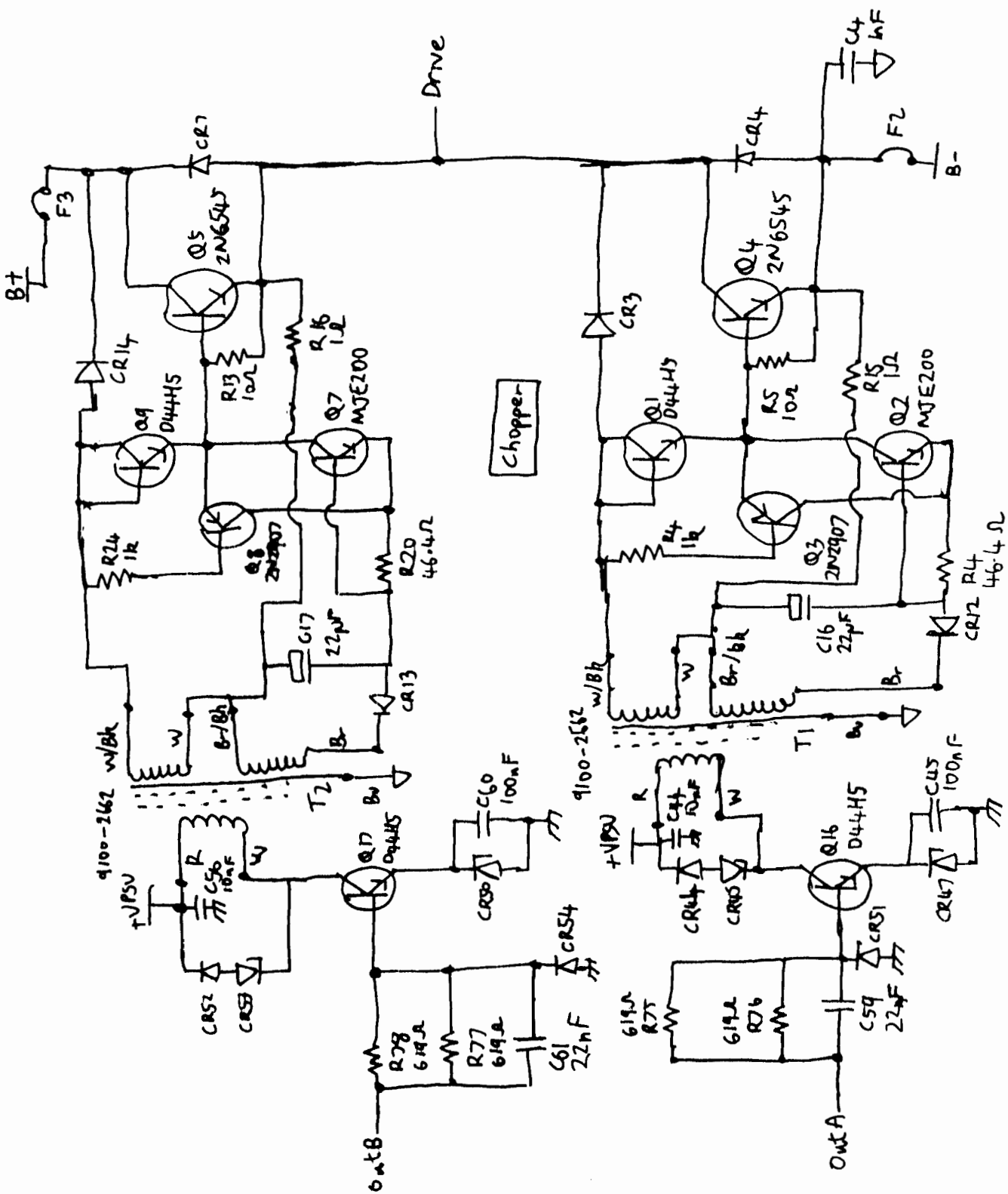
Degauss

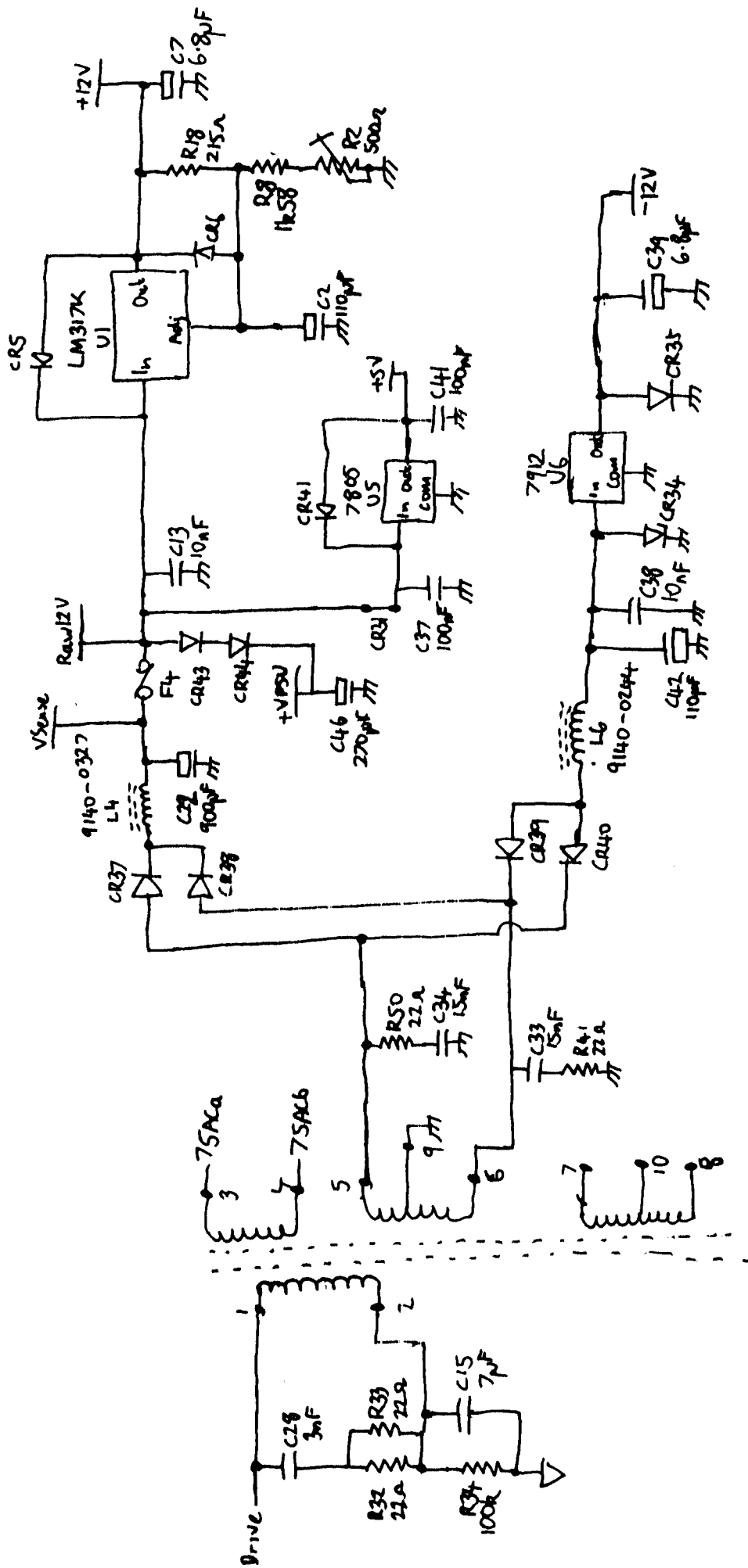
5k 115V
230V



HP9836C Monitor PSU PCB Sheet 2

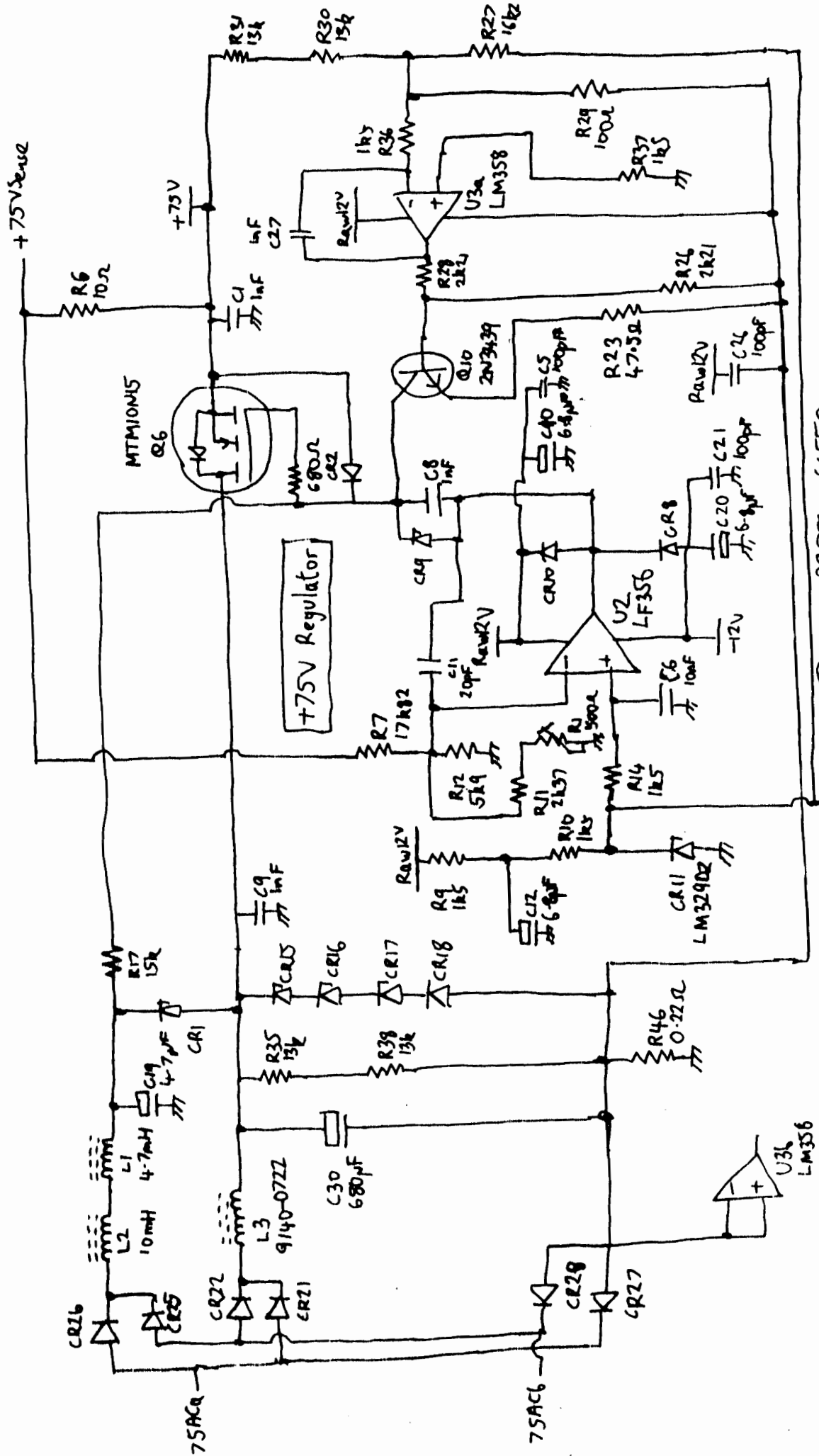
09836-66550

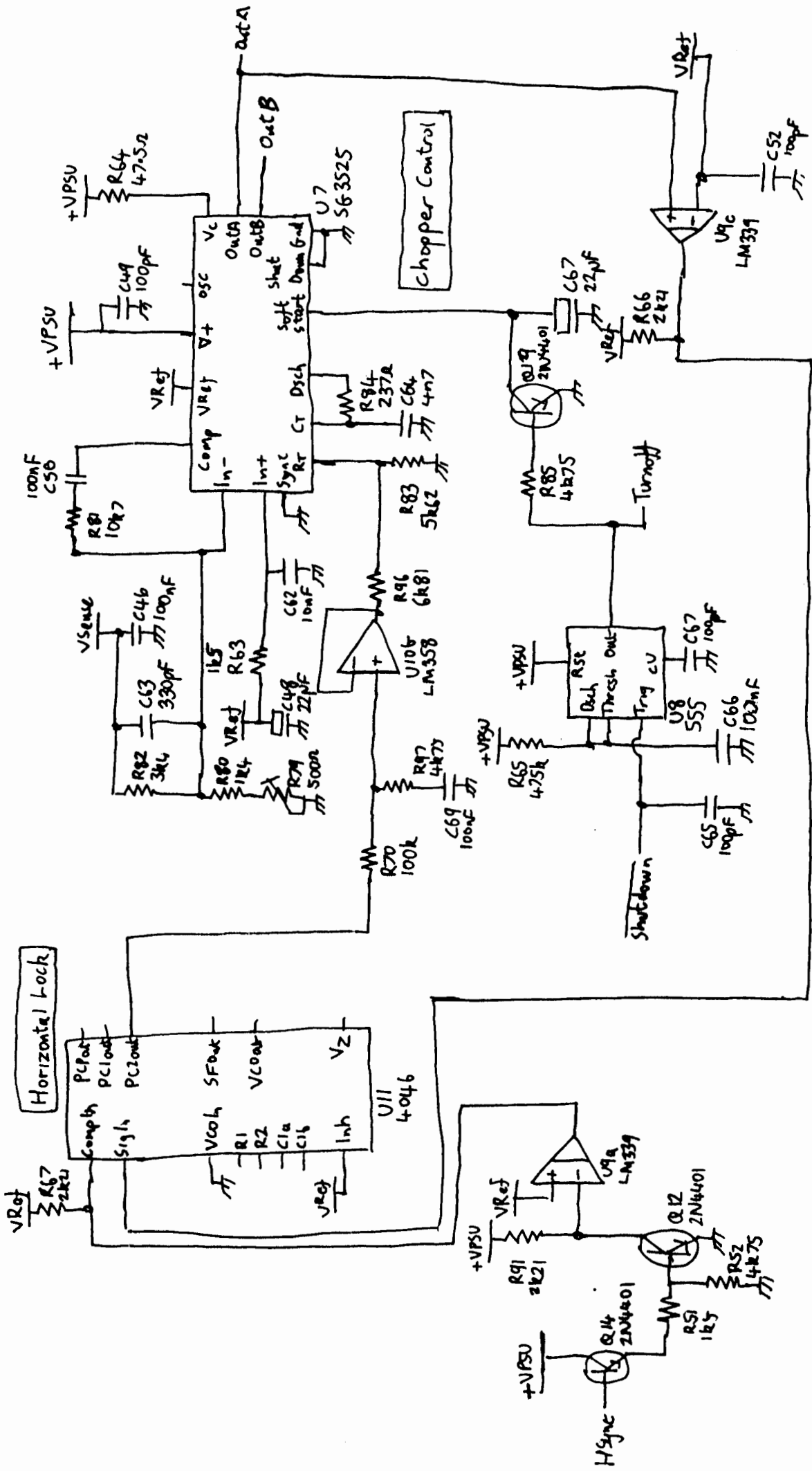


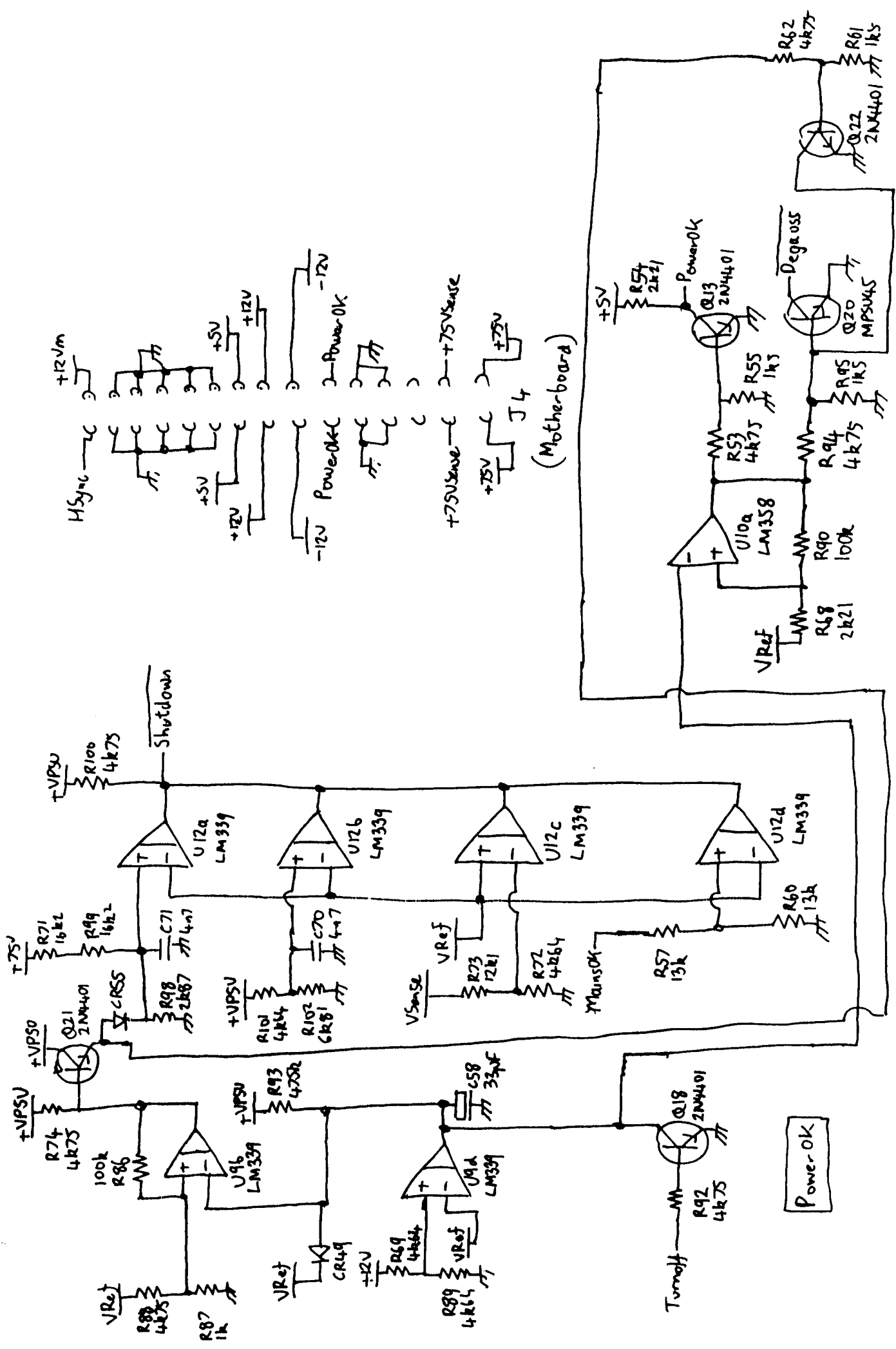


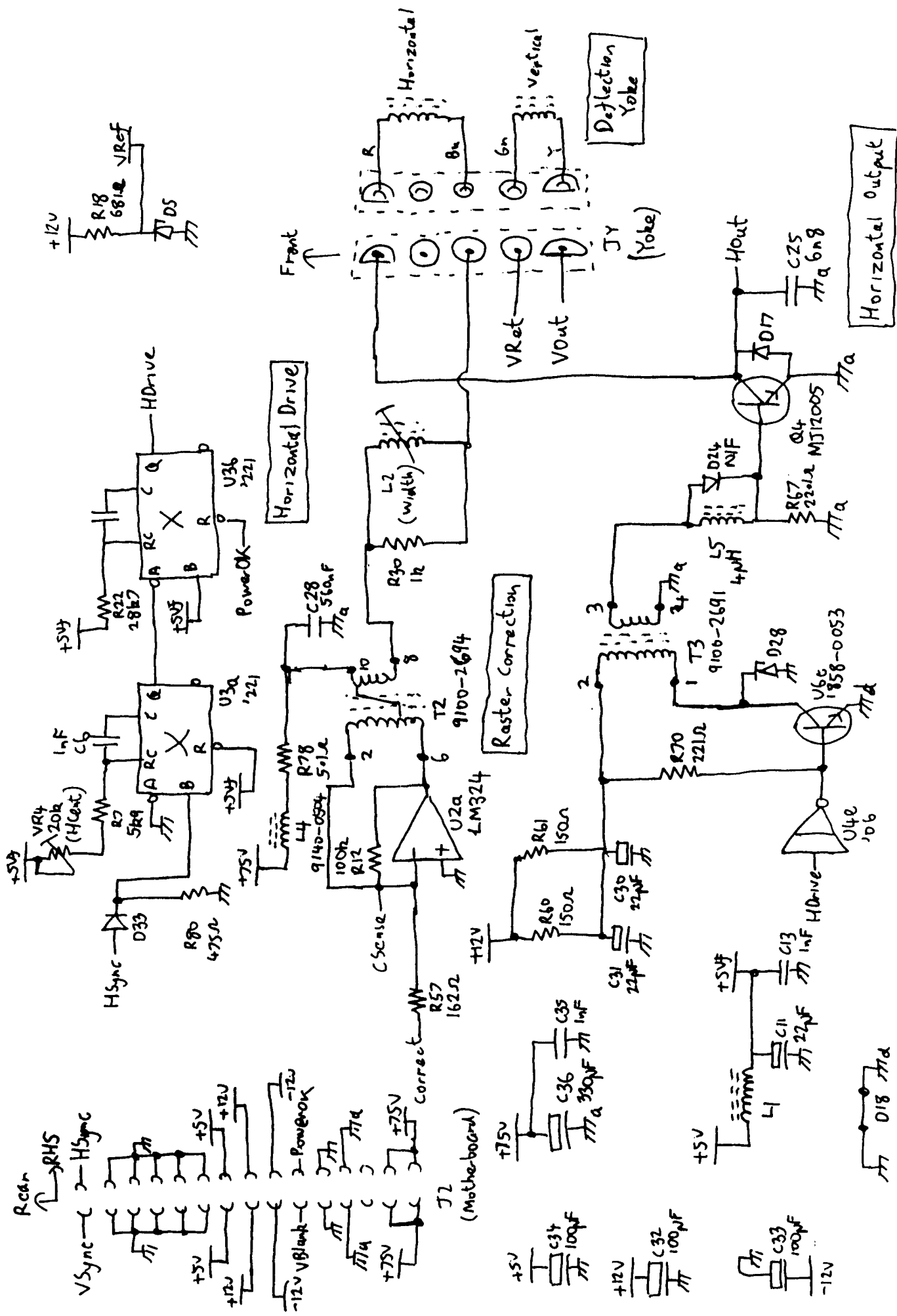
Output Regulators

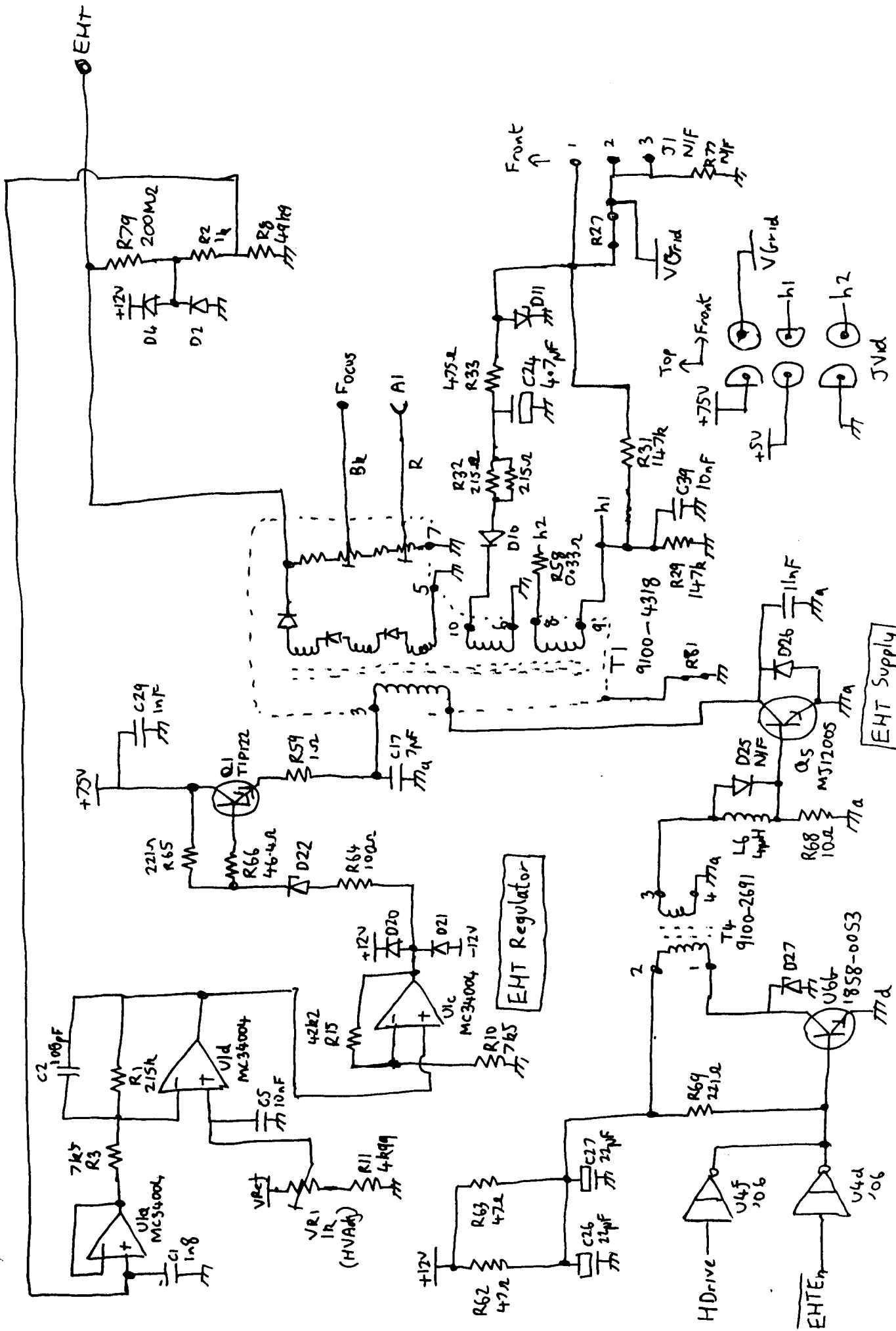
T4
9100-2687
Chopper Transformer

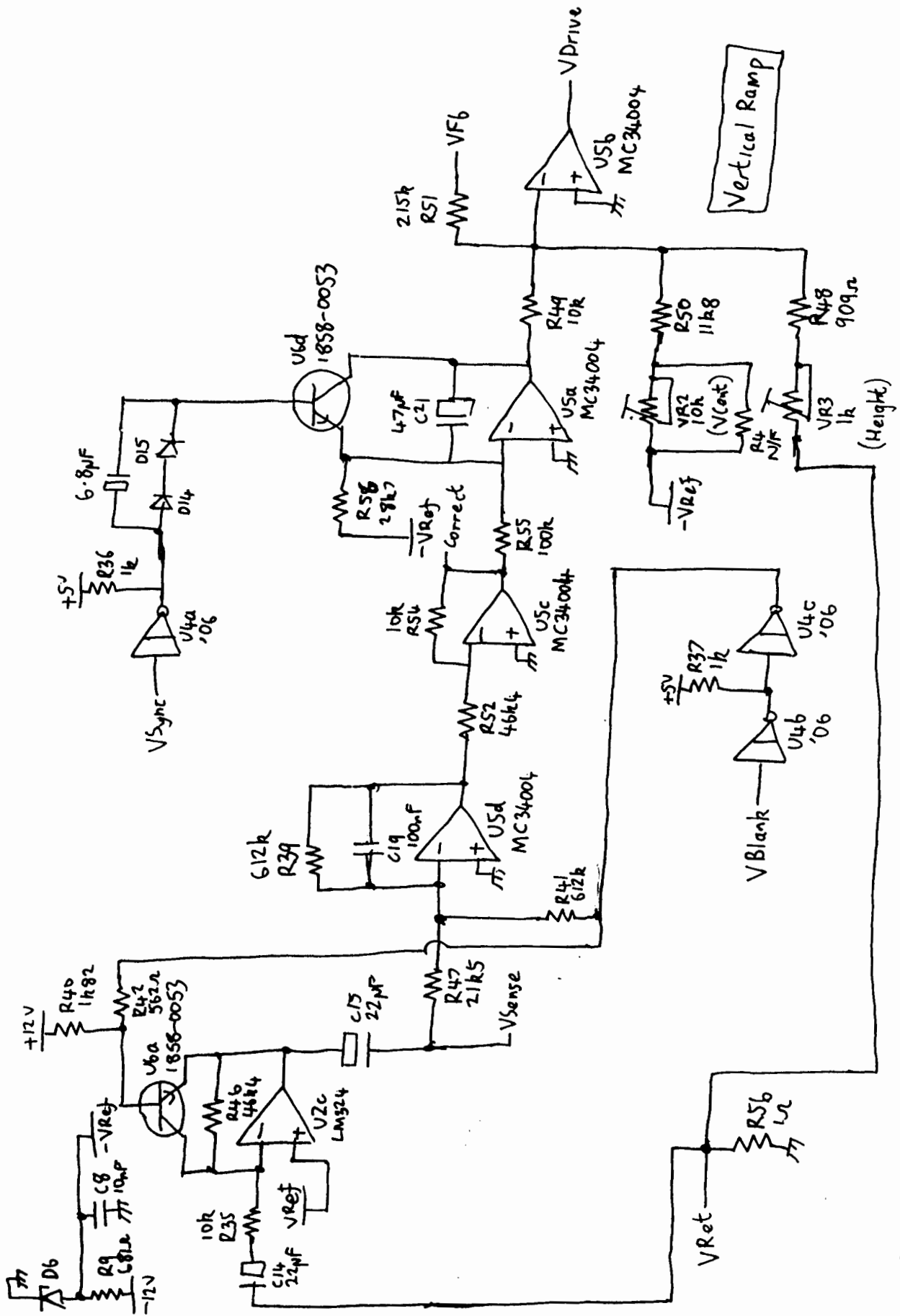


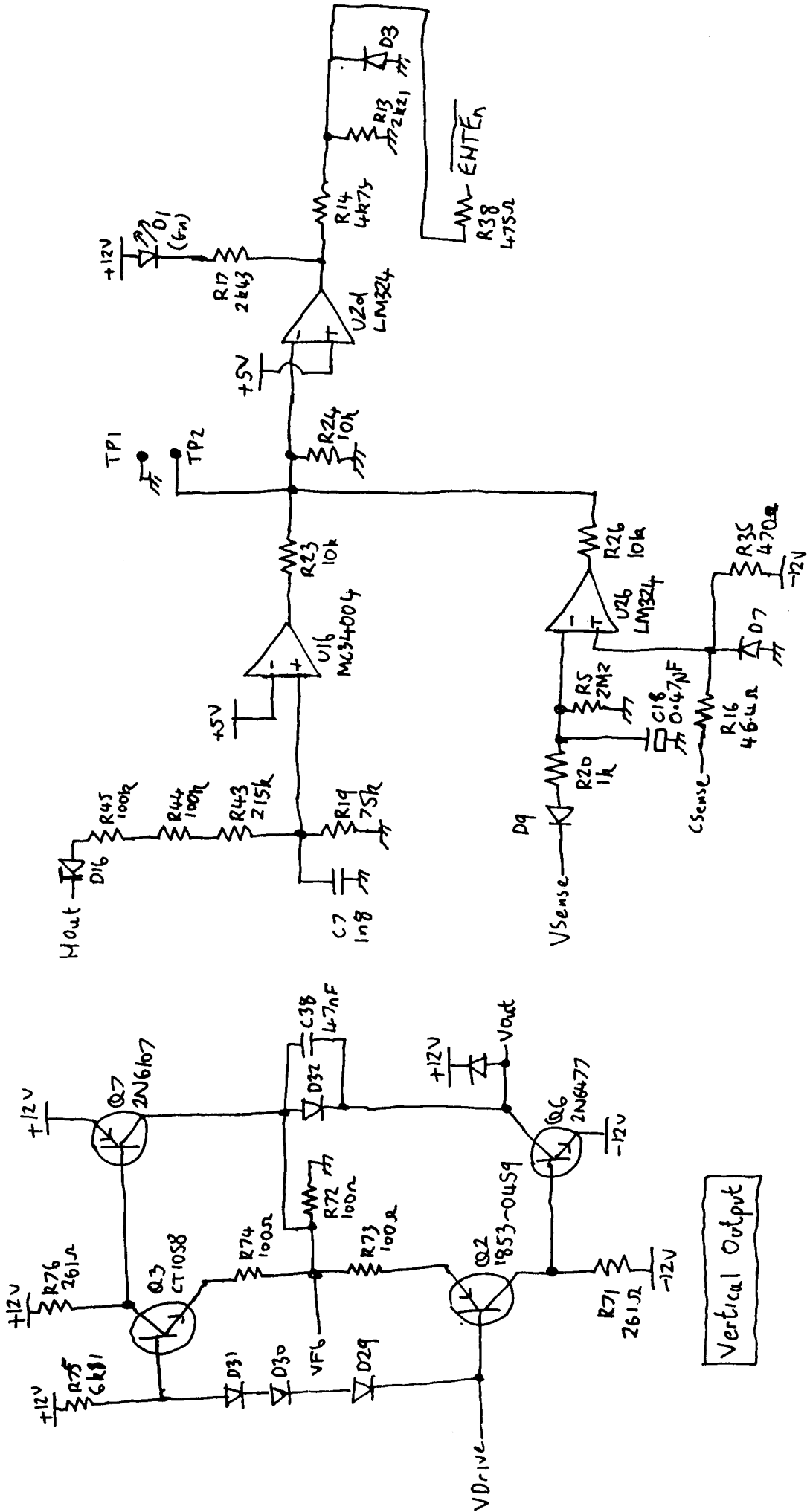






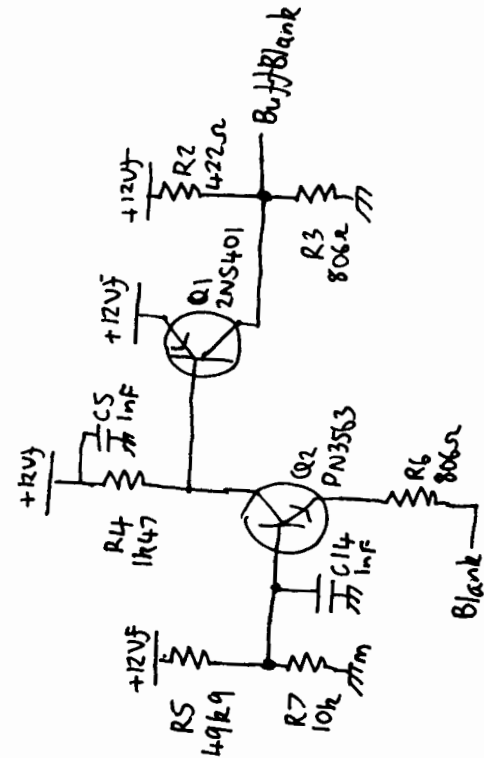
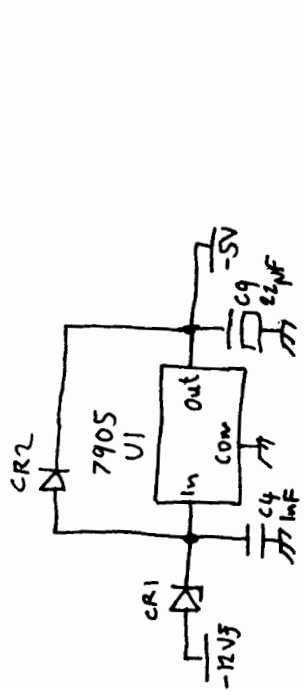
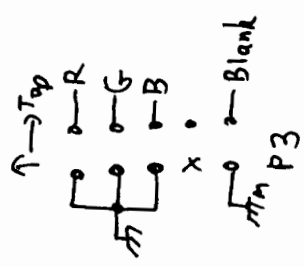
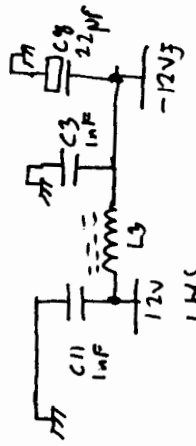
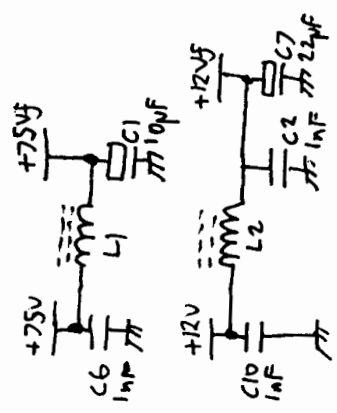
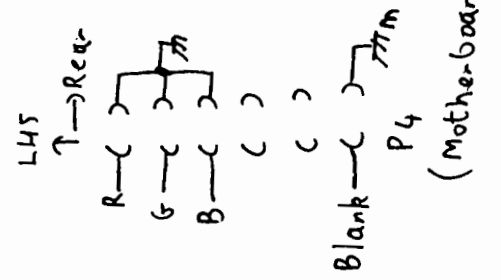
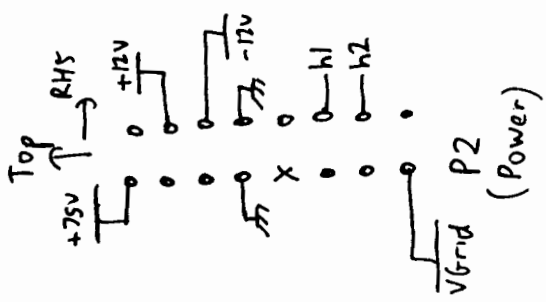




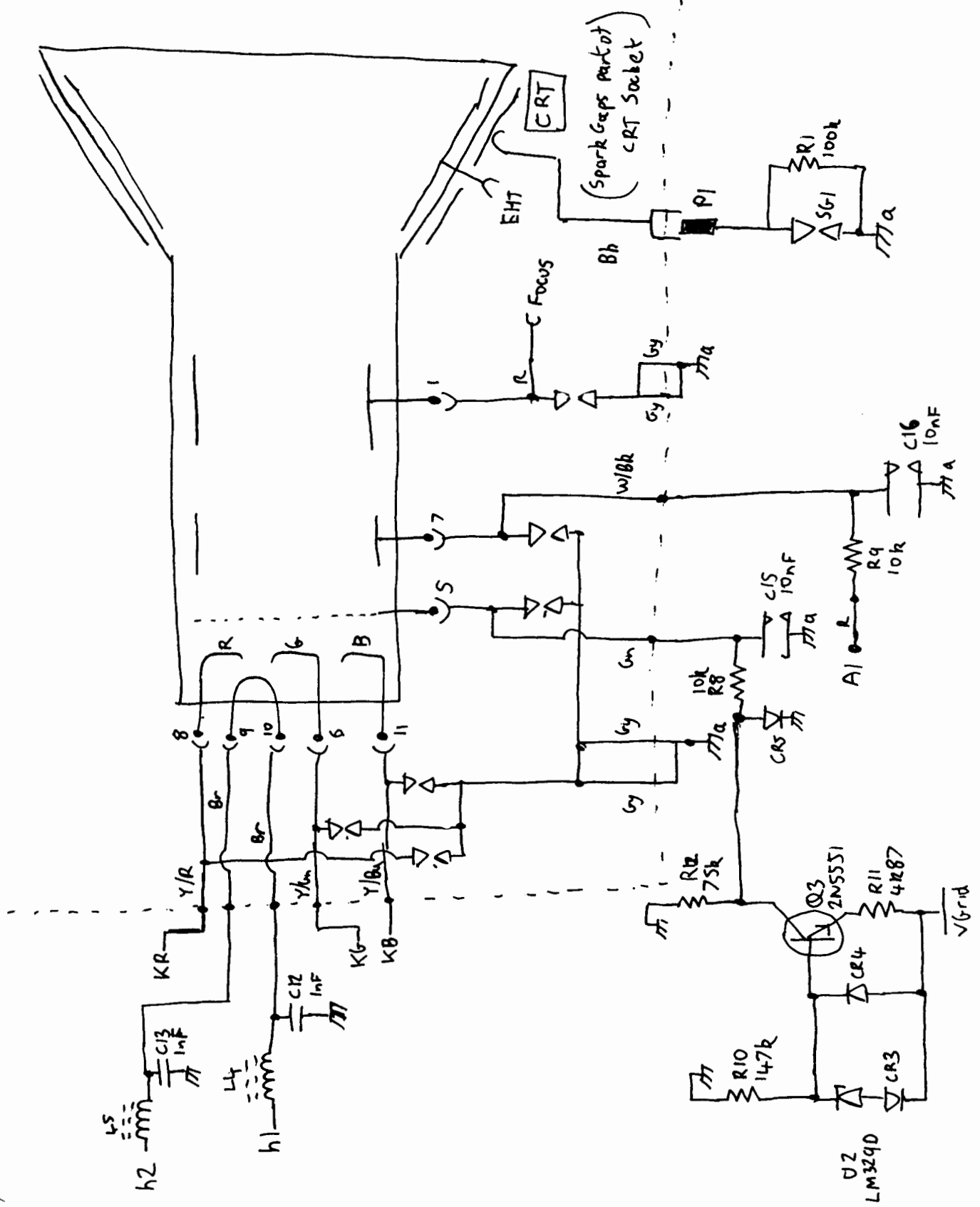


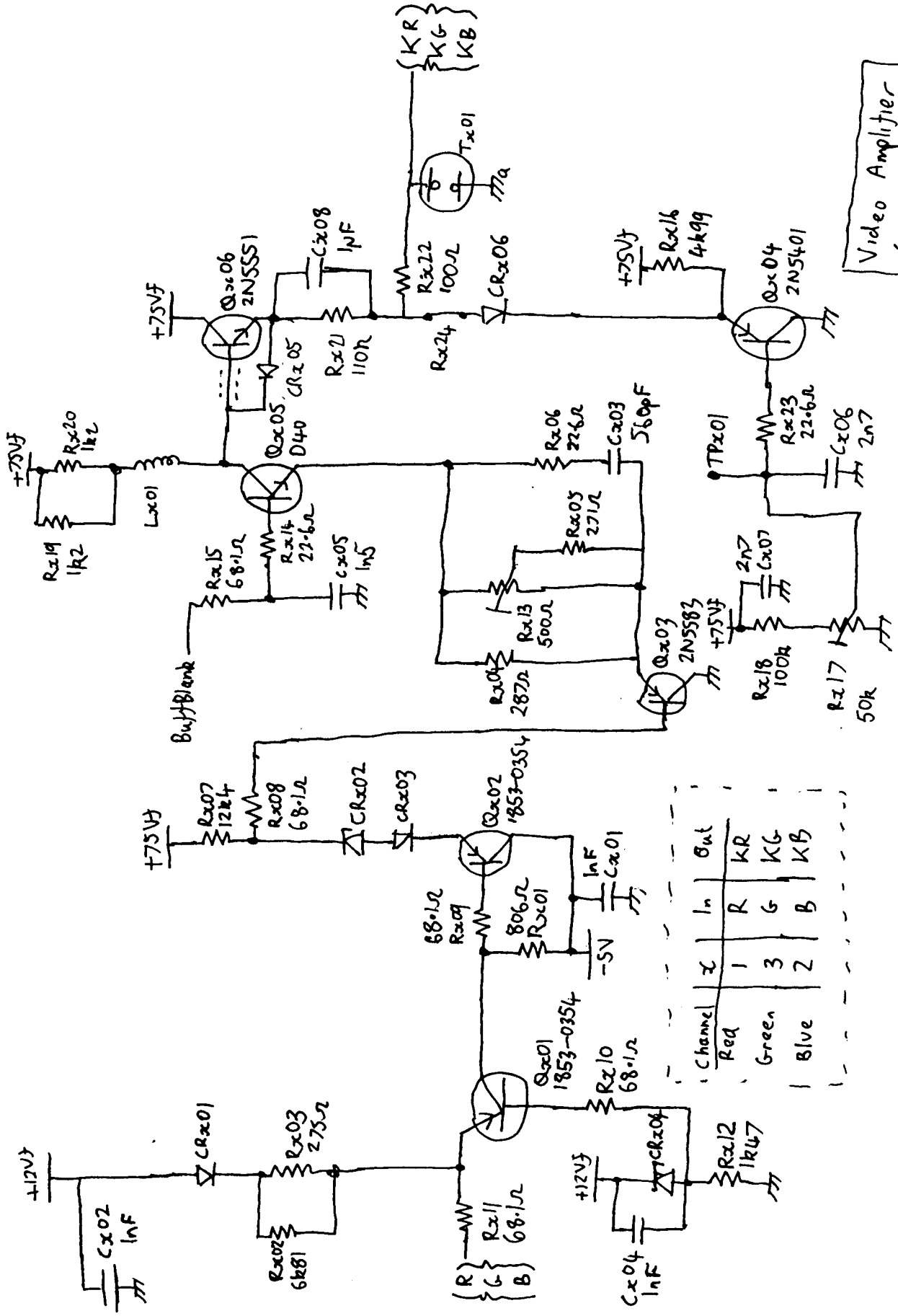
Scan Failure Detection

Vertical Output



Blanking





Video Amplifier
(Typical of 3)