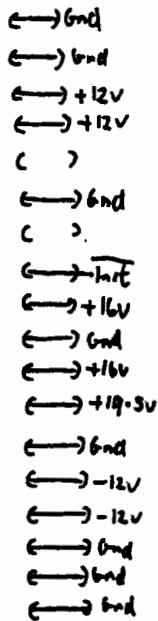
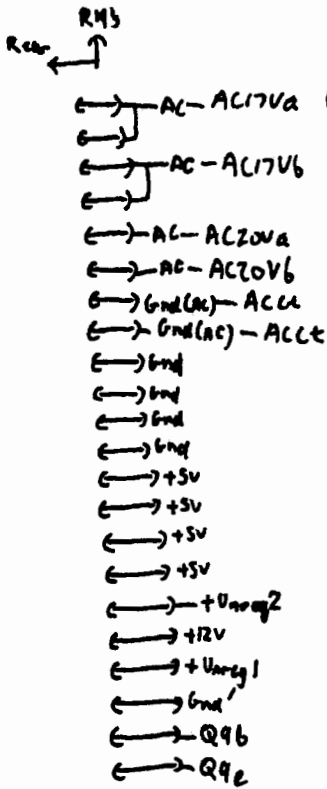
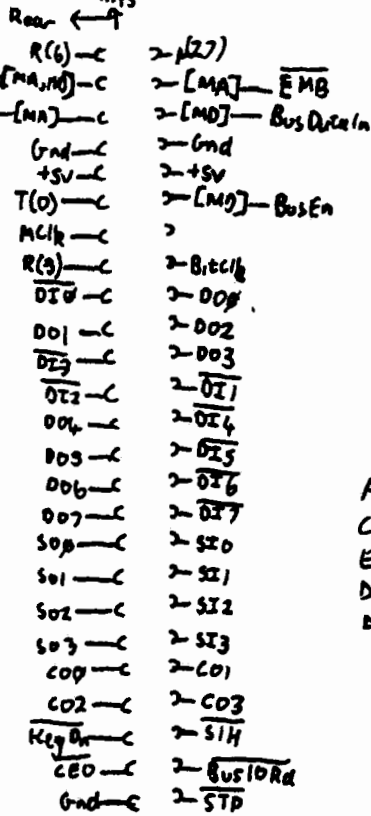


PSU

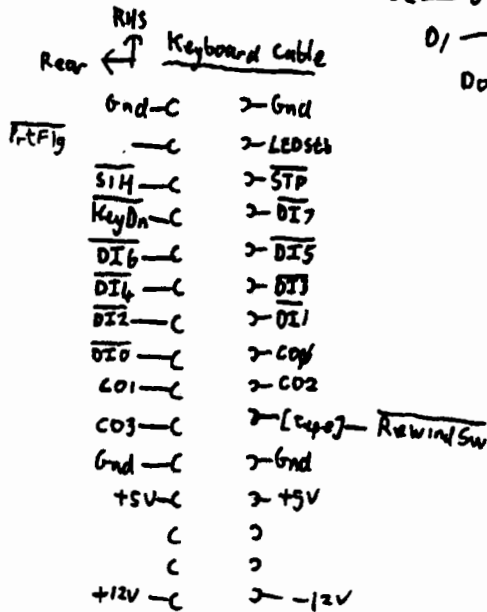


04830-66551

I/O Backplane

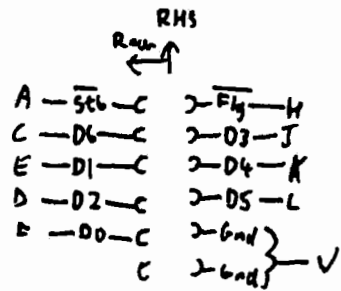


04830-66502

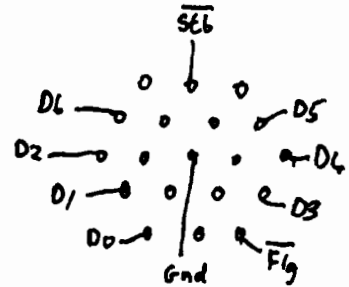


04830-66534

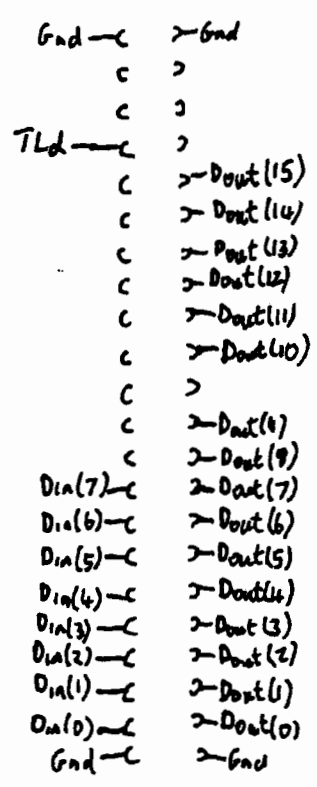
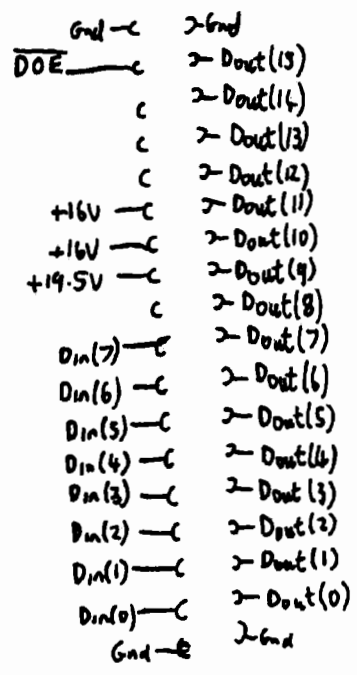
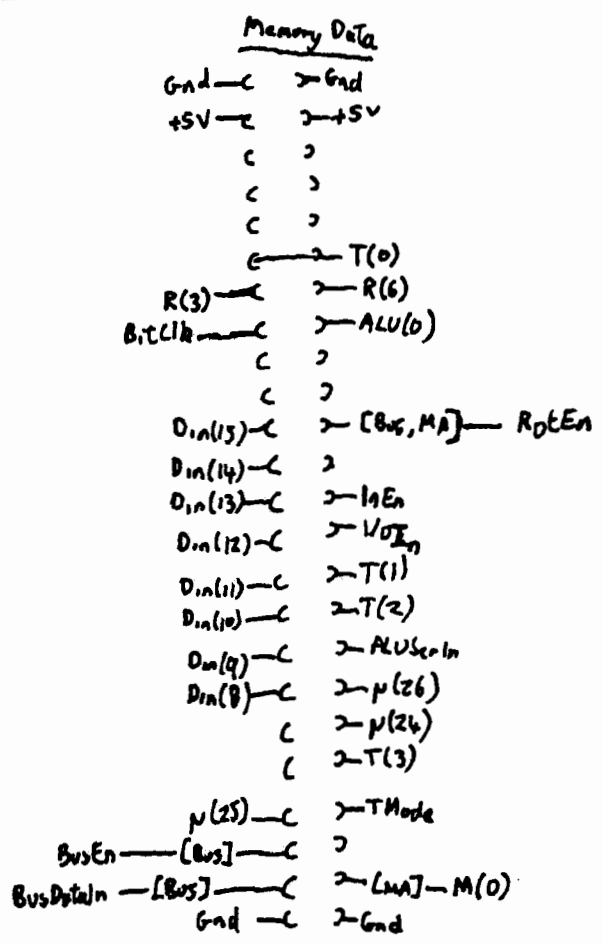
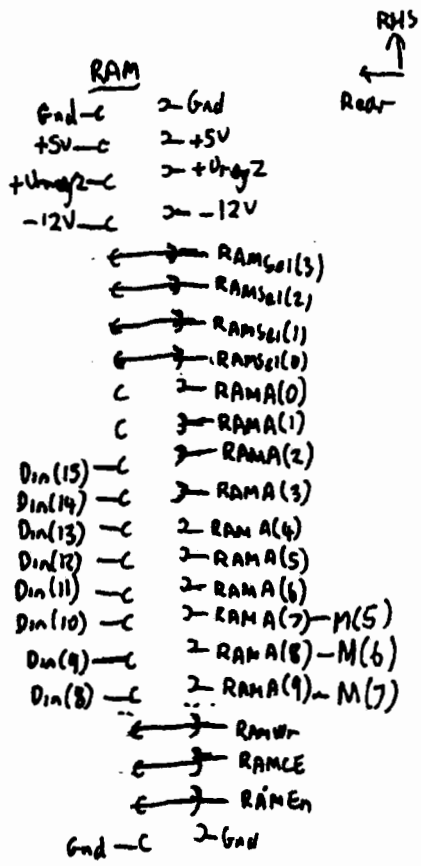
9866 Printer



Printer Connector



HP9830 Main Backplane



09830-66584

09830-66583

HP4830 Main Backplane



Memory Address

Gnd	-C	>	Gnd
+5V	-C	>	+5V
ROMCS(0)	-C	>	ROMCS(1)
ROMCS(3)	-C	>	ROMCS(2)
ROMCS(5)	-C	>	ROMCS(4)
R(3)	-C	>	Wait
Bitclk	-C	>	R(6)
RAMA(0)	-C	>	ALU(0)
RAMA(1)	-C	>	MCik
RAMA(2)	-C	>	EOlst
RAMA(3)	-C	>	[MD] RotEn
RAMA(4)	-C	>	RAMS(7)
RAMA(5)	-C	>	RAMS(6)
RAMA(6)	-C	>	RAMS(5)
M(5) RAMA(7)	-C	>	RAMS(4)
M(6) RAMA(8)	-C	>	RAMS(3)
M(7) RAMA(9)	-C	>	RAMS(2)
RAMR	-C	>	RAMS(1)
RAMCE	-C	>	RAMS(0)
RAMEN	-C	>	N(27)
Tmode	-C	>	[Bus] EMB
R3mode	-C	>	01504h2
M(10) [MD]	-C	>	M(15)
Gnd	-C	>	Gnd

Gnd	-C	>	Gnd
+12V	-C	>	+12V
TLd	-E	>	RAMEN
	-C	>	ExtCE
	-C	>	[Sel] - M(13)
	-C	>	M(9)
R3Dat	-C	>	M(10)
R3In	-C	>	M(11)
DOE(0)	-C	>	M(12)
DOE(1)	-C	>	ROMpage
+16V	-C	>	+16V
BROMCS(14)	-C	>	ROMA(8)
BROMCS(15)	-C	>	ROMA(9)
ROMCS(6)	-C	>	ROMA(7)
ROMCS(7)	-C	>	ROMA(6)
ROMCS(8)	-C	>	ROMA(5)
ROMCS(4)	-C	>	ROMA(4)
ROMCS(10)	-C	>	ROMA(3)
ROMCS(13)	-C	>	ROMA(2)
ROMCS(12)	-C	>	ROMA(1)
ROMCS(11)	-C	>	ROMA(0)
Gnd	-C	>	Gnd

09830-66582

ROM

Gnd	-C	>	Gnd
Gnd	-C	>	Gnd
+5V	-C	>	+5V
+5V	-C	>	+5V
ROMCS(5)	-C	>	ROMCS(5)
ROMCS(3)	-C	>	ROMCS(3)
ROMCS(0)	-C	>	ROMCS(0)
ROMCS(1)	-E	>	ROMCS(1)
ROMCS(2)	-C	>	ROMCS(2)
ROMCS(4)	-C	>	ROMCS(4)

Gnd	-C	>	Gnd
+12V	-C	>	+12V
-12V	-C	>	-12V
RAMEN	-C	>	RAMEN
DOut(15)	-C	>	DOut(15)
DOut(14)	-C	>	DOut(14)
DOut(13)	-C	>	DOut(13)
DOut(12)	-C	>	DOut(12)
ROMCS(6)	-C	>	DOut(11)
ROMCS(7)	-C	>	DOut(10)
+16V	-C	>	+16V
ROMA(8)	-C	>	DOut(9)
ROMA(5)	-C	>	DOut(8)
ROMA(7)	-C	>	DOut(7)
ROMA(6)	-C	>	DOut(6)
ROMA(5)	-C	>	DOut(5)
ROMA(4)	-C	>	DOut(4)
ROMA(3)	-C	>	DOut(3)
ROMA(2)	-C	>	DOut(2)
ROMA(1)	-E	>	DOut(1)
ROMA(0)	-C	>	DOut(0)
ROMCS(9)	-C	>	ROMCS(9)
ROMCS(13)	-C	>	ROMCS(10)
ROMCS(14)	-C	>	ROMCS(12)
Gnd	-C	>	Gnd

09830-66521

HP9830 Main Backplane

RHS
Rear ↑

Ext ROMselector

- Gnd — C —> Gnd
- +5V — C —> +5V
- +12V — C —> ExtCS(0)
- ExtCS(1) — C —> ExtCS(2)
- ExtCS(3) — C —> ExtCS(4)
- M(13) — C —> ExtCS(8)
- M(14) — C —> ExtCS(5)
- M(10) — C —> ExtCS(6)
- M(11) — C —> ExtCS(7)
- M(12) — C —> ExtCS(4)
- ROMPage — C —> ExtCS(10)
- (+16V) — C —> ExtCS(11)
- ROMA(8) — C —> ExtA(8)
- ROMA(8) — C —> ExtA(8)
- ROMA(7) — C —> ExtA(7)
- ROMA(6) — C —> ExtA(6)
- ROMA(5) — C —> ExtA(5)
- ROMA(4) — C —> ExtA(4)
- ROMA(3) — C —> ExtA(3)
- ROMA(2) — C —> ExtA(2)
- ROMA(1) — C —> ExtA(1)
- ROMA(0) — C —> ExtA(0)
- ExtCS(15) — C —> ExtCS(13)
- ExtCS(14) — C —> ExtCS(12)
- Gnd — C —> Gnd

09830-66525

Internal Ext ROM

- +5V — C —> +5V
- 12V — C —> Dout(15)
- ExtCE — C —> Dout(14)
- CSA — C —> Dout(13)
- CSB — C —> Dout(12)
- C —> Dout(11)
- C —> Dout(10)
- ExtA(8) — C —> Dout(9)
- ExtA(8) — C —> Dout(8)
- ExtA(7) — C —> Dout(7)
- ExtA(6) — C —> Dout(6)
- ExtA(5) — C —> Dout(5)
- ExtA(4) — C —> Dout(4)
- ExtA(3) — C —> Dout(3)
- ExtA(2) — C —> Dout(2)
- ExtA(1) — C —> Dout(1)
- ExtA(0) — C —> Dout(0)
- Gnd — C —> Gnd

ROM Backplane

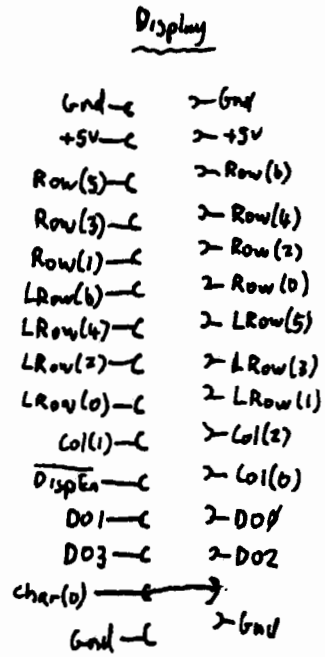
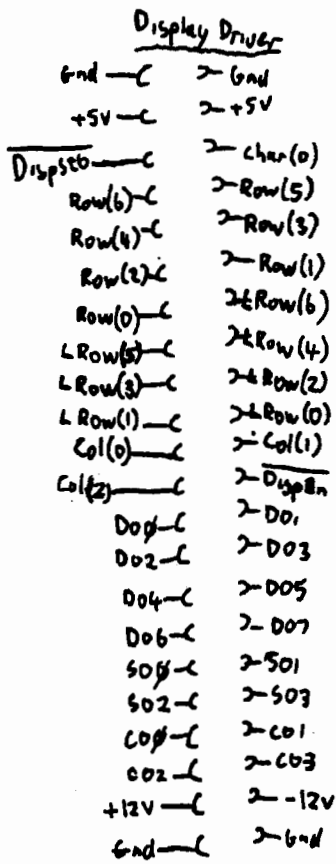
LHS
Rear ↑

- ExtA(8) — C —> ExtA(0)
- Dout(7) — C —> ExtA(7)
- Dout(5) — C —> ExtCE
- Dout(8) — C —> ExtA(2)
- Dout(10) — C —> ExtA(4)
- Dout(8) — C —>
- Dout(1) — C —>
- Dout(12) — C —>
- Dout(6) — C —> ExtA(6)
- Dout(14) — C —> -12V
- Dout(14) — C —> +5V
- Dout(2) — C —> Gnd
- Dout(0) — C —> Gnd
- Dout(9) — C —> ExtA(5)
- Dout(11) — C —> ExtA(3)
- Dout(13) — C —> ExtA(1)
- Dout(15) — C —> ExtCS(7)
- ExtA(8) — C —> ExtCS(2)
- ExtCS(13) — C —> ExtCS(3)
- ExtCS(15) — C —> ExtCS(0)
- ExtCS(12) — C —> ExtCS(1)
- ExtCS(14) — C —> ExtCS(6)

09830-66503

Slot	CSA	CSB
1	BROMCS(14)	BROMCS(15)
2	ExtCS(4)	ExtCS(5)
3	ExtCS(8)	ExtCS(9)
4	ExtCS(10)	ExtCS(11)

HP9830 Main Backplane



09830-66541

09830-66542

HP 9830 Main Backplane

RHS
↑
←
Row

Gnd-C → Gnd
 +5V-C → +5V
 SI3-C → SI2
 SI1-C → SI0
 DI7-C → DI6
 DI5-C → DI4
 DI3-C → DI2
 DI1-C → DI0
 CO1-C → CO1
 CO2-C → CO2

Gnd-C → EOT
 CassSw-C → SpeedClamp
 BuffBit4-C → WP
 BuffSC-C → CassSw
 SROut(0)-C → SROut(1)
 SROut(2)-C → SROut(3)
 SROut(4)-C → SROut(5)
 SROut(6)-C → SROut(7)
 TapeSel-C → TapePlay
 KeyOn-C → SIH
 C60 KeyOn-C → BusIO Rd
 STP-C → TrMark
 MotorOn-C → CROut
 C →
 CO1-C → CO1
 CO2-C → CO3
 C → StopTape
 DispStb-C →

09830-665b1

Gnd-C → Gnd
 +5V-C → +5V
 CassSw-C → WpSw
 StopTape-C → SpeedClamp
 BuffBit4-C → WP
 BuffSC-C → CassSw
 SROut(0)-C → SROut(1)
 SROut(2)-C → SROut(2)
 SROut(4)-C → SROut(5)
 SROut(6)-C → SROut(7)
 TapeSel-C → TapePlay
 MotorOn-C → RewindSw
 Speed-C → Dir
 Write-C → TrMark
 RdMark-C → RdData
 RdClk-C → WrMark
 WrData-C → WrClk
 DO1-C → DO1
 DO2-C → DO3
 DO4-C → DO5
 DO6-C → DO7
 SO1-C → SO1
 SO2-C → SO3
 Gnd-C → Gnd

09865-66562

- TP
- 1 Row WrClk
 - 2 TapeSel
 - 3 Write
 - 4 TapePlay
 - 5 MotorOn
 - 6 WrMarkEn
 - 7 Dir
 - 8 Speed
 - 9 SROut(0) - WrData
 - 10 WrClk
 - 11 WrMark

Cassette Interface

HP9830 Main Backplane

Read/Write

Gnd C 2 Gnd
 +5V C 2 +5V
 WA C 2 +5VW
 WB C 2 RA
 Wp5W C 2 RB
 Gnd" C 2 Gnd"
 C)
 RawRA C)
 RawAB C)
 C)
 C)
 Speed C 2 (Dir)
 Write C 2 Cl-Mark
 RMark C 2 RData
 Rdclk C 2 W-Mark
 W-Data C 2 W-Clk
 +12V C 2 0-12V
 Gnd C 2 Gnd

04865-66563

- TP
 2 WA
 3 WB
 4 RData
 5 RA
 6 AmpRA
 7 AmpAB
 8 RB
 9 R-Mark
 10 Rdclk

Motor Control

Gnd C 2 Gnd
 +5V C 2 +5V
 RewMotor C 2 Rew Motor
 FwdMotor C 2 Fwd Motor
 MotorCom C 2 Motor Com
 LSolenoid C 2 LSolenoid
 RSolenoid C 2 RSolenoid
 +Unreg C 2 +Unreg |
 Gnd' C 2 Gnd'
 Q96 C 2 Q96
 Q9c C 2 Q9c
 Gnd" C 2 Gnd"
 Speedklap C)
 C)
 MotorOn C)
 speed C 2 Dir
 +12V C 2 -12V
 Gnd C 2 Gnd

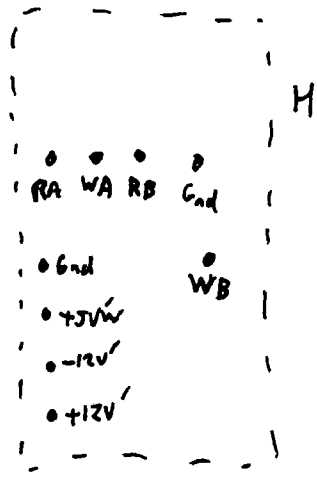
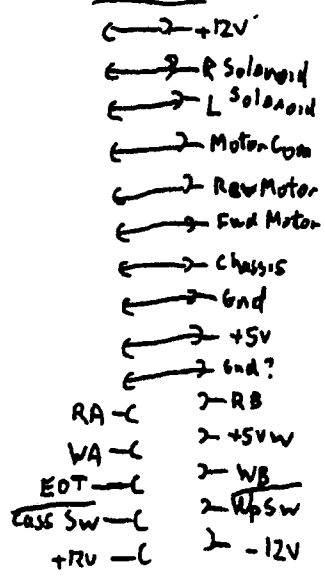
04865-66564

TP

- 1 Speed Sense
- 2 Q9c
- 3 Motor Com
- 4 Current Sense
- 5 Rew Motor.
- 6 RSolenoid
- 7 LSolenoid
- 8 Fwd Motor

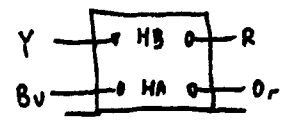
HP9830 Main Backplane

Tape Drive

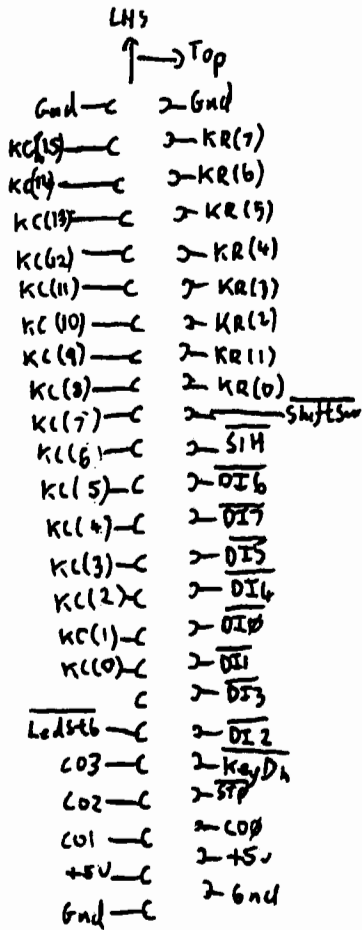


09830-66565

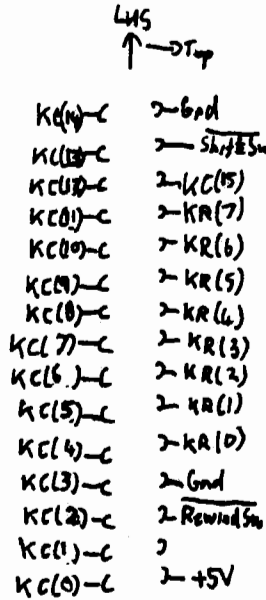
Head Connections



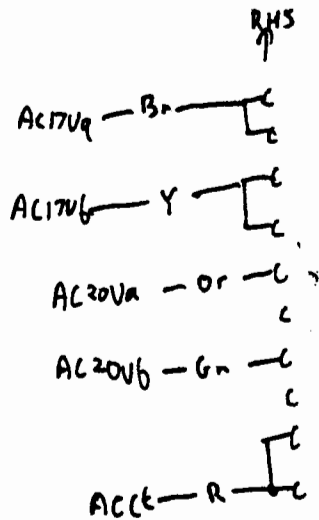
HP4830 Keyboard



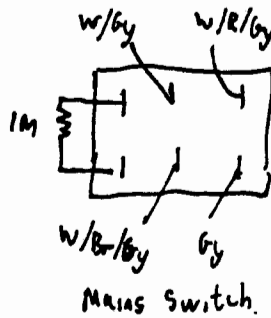
09830-66532
encoder



09830-66531
Keyboard

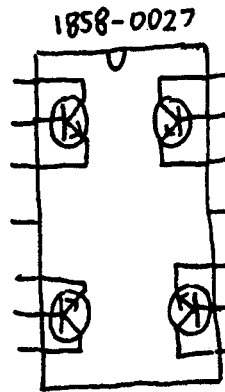
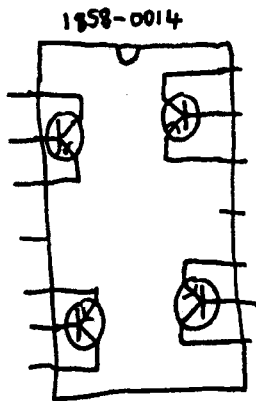
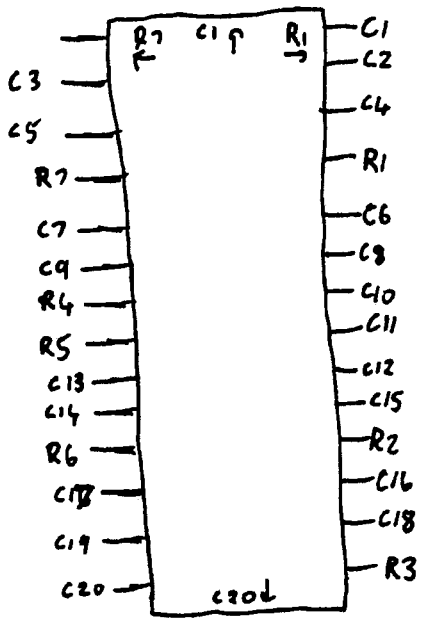


Transformer Connector



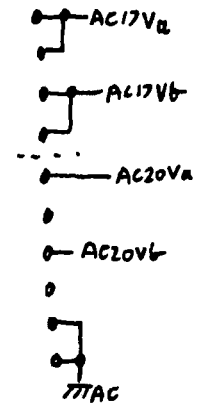
HP9830 Display

LHS
↑
→ Top

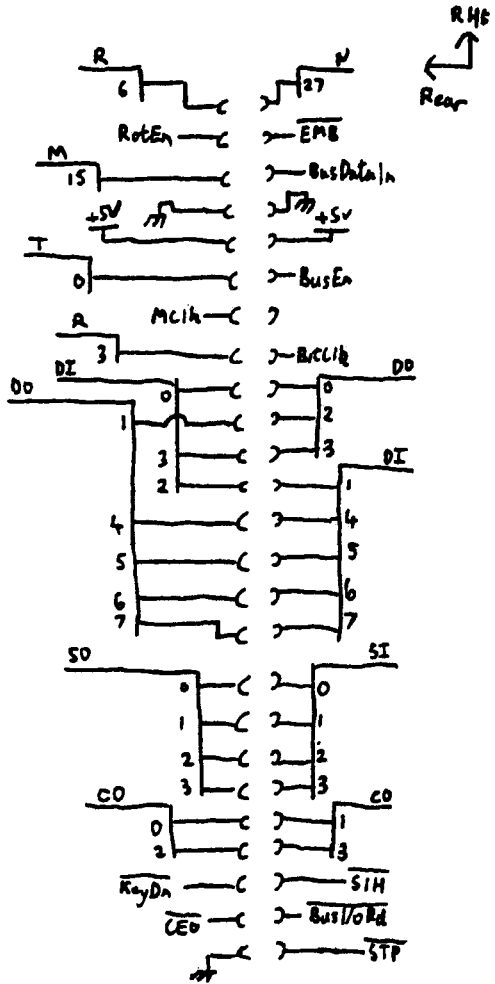


(1)

RHS
↑



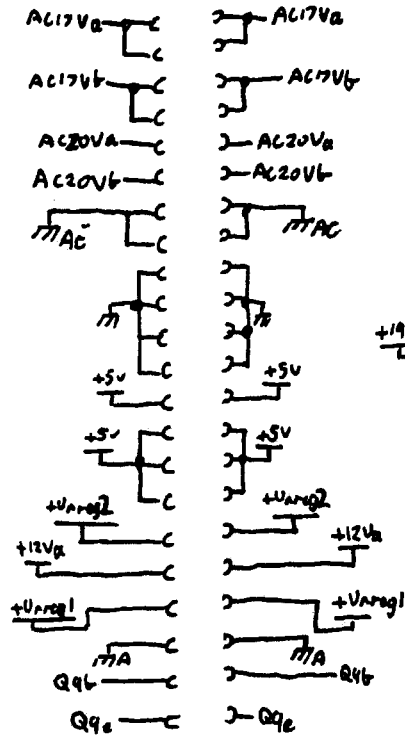
Transformer Connector



RHS
Rear
↖ ↗

09830-66502

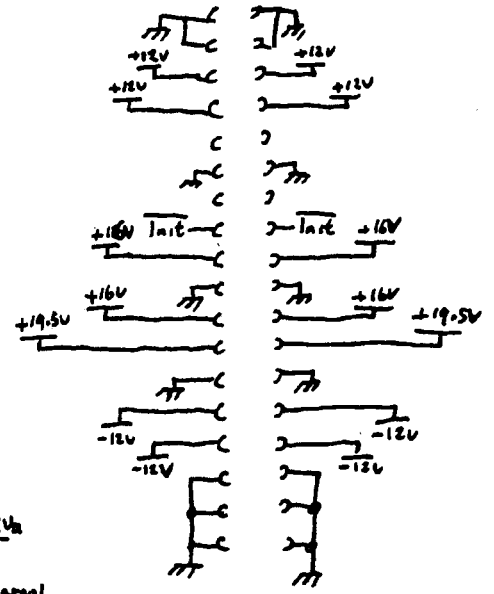
I/O Backplane



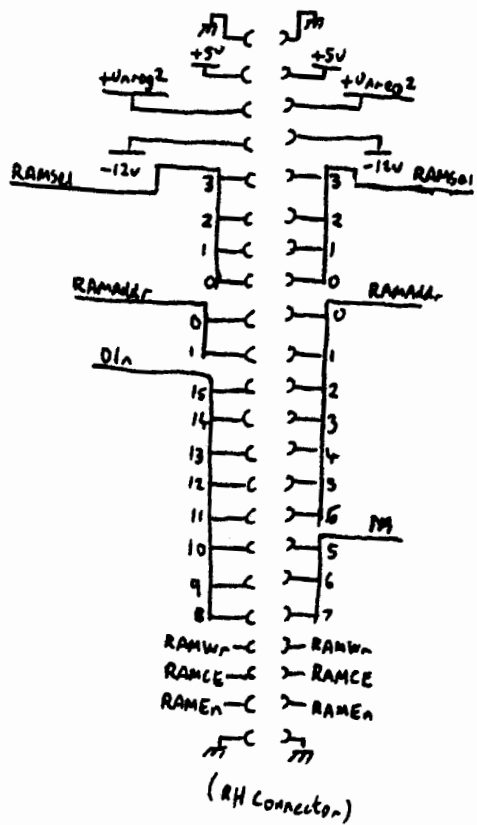
(RH Connector)

09830-66551

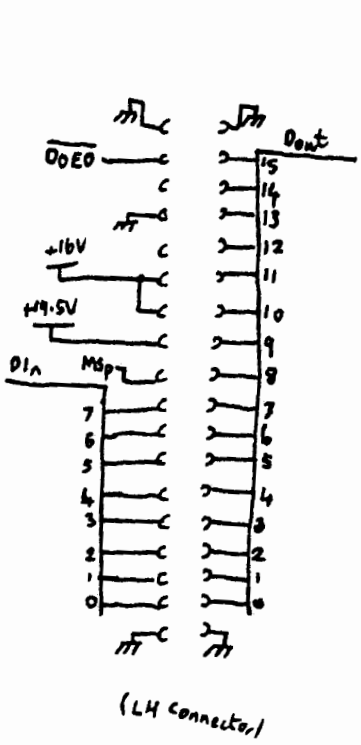
PSU



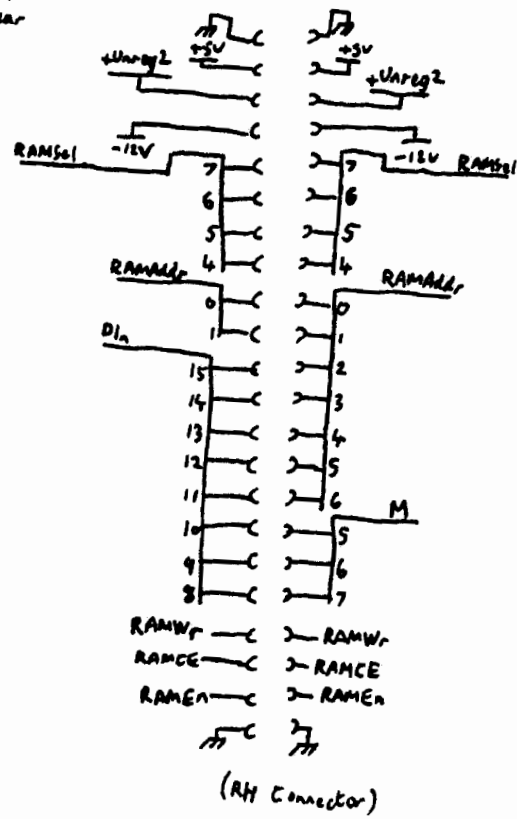
(LH Connector)



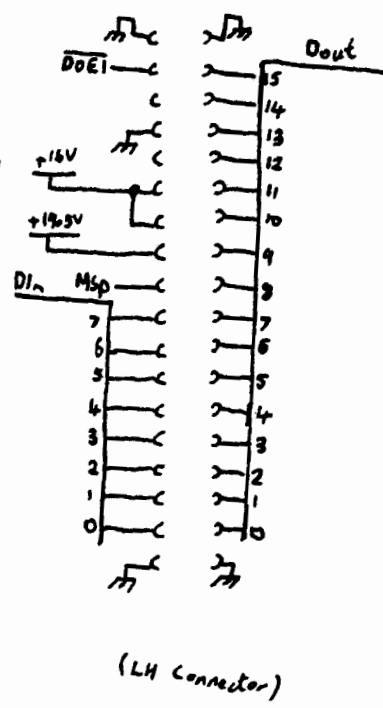
09830-66584
 Rear (0) RAM



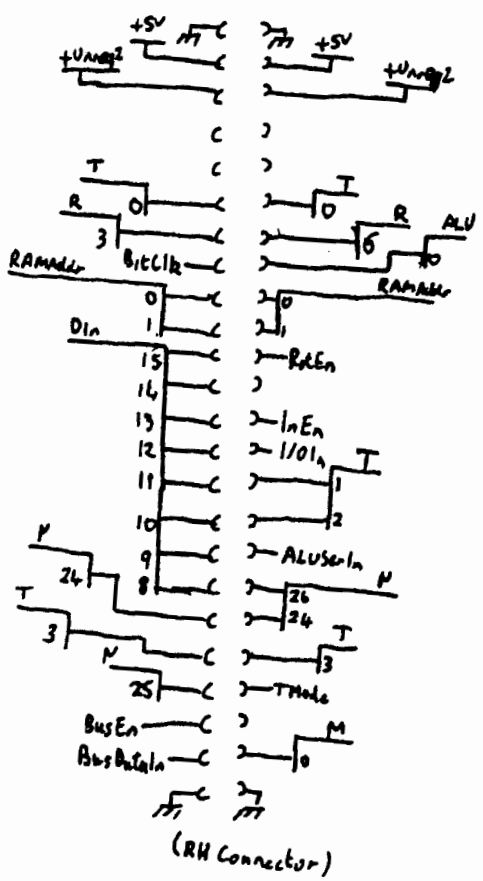
RHS
 Rear



Front (1) RAM



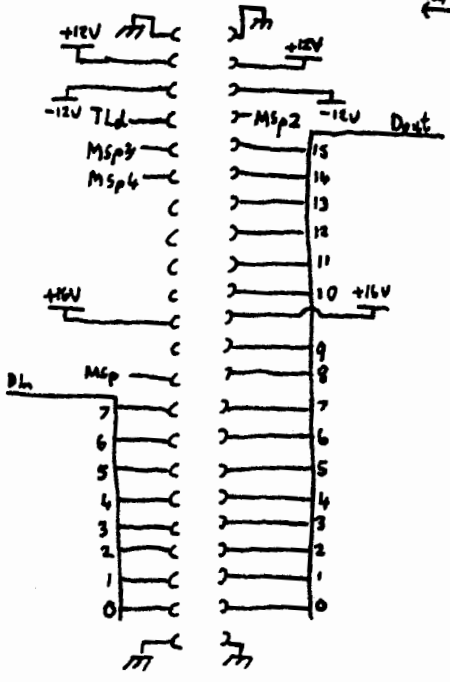
RHS
Rear



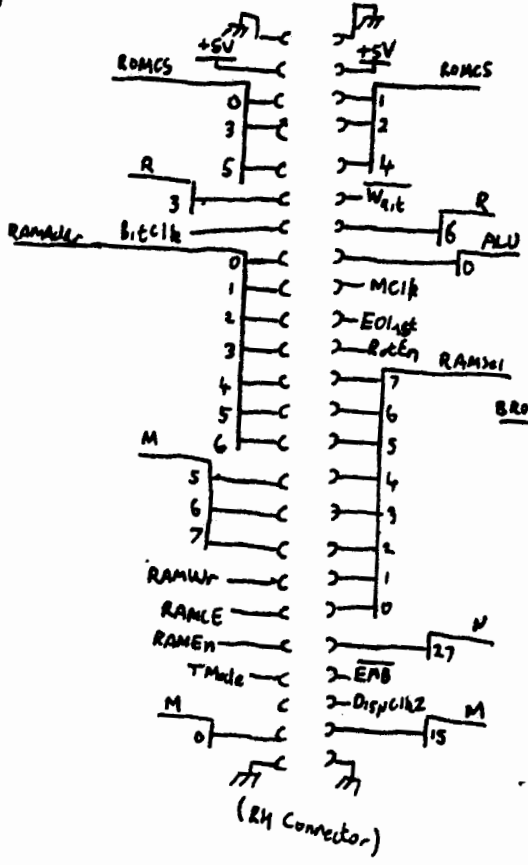
(RH Connector)

09830-66583

Memory Data



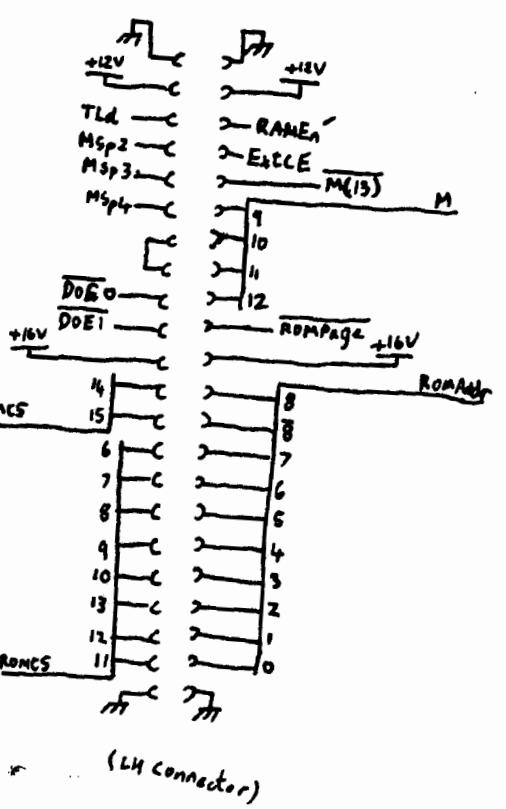
(LH Connector)



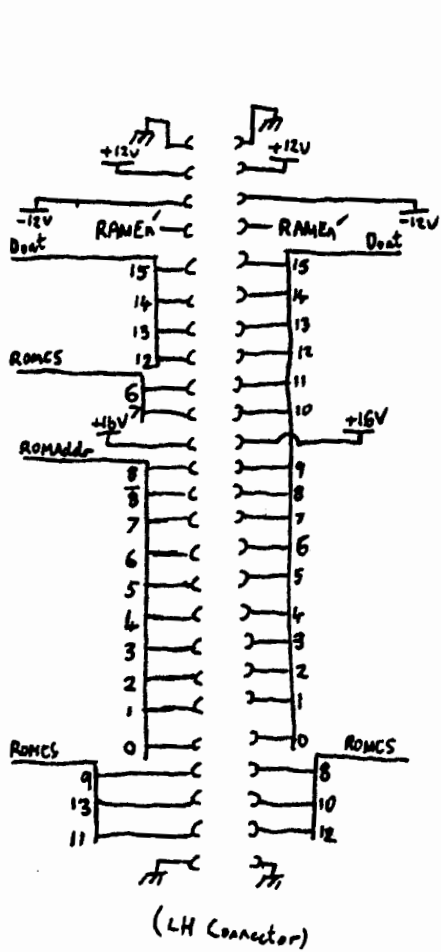
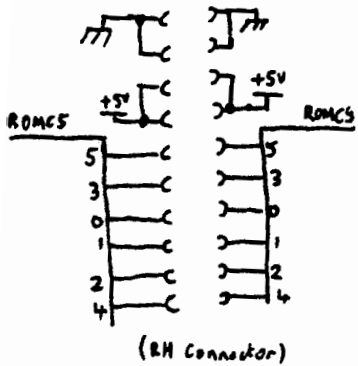
(RH Connector)

09830-66582

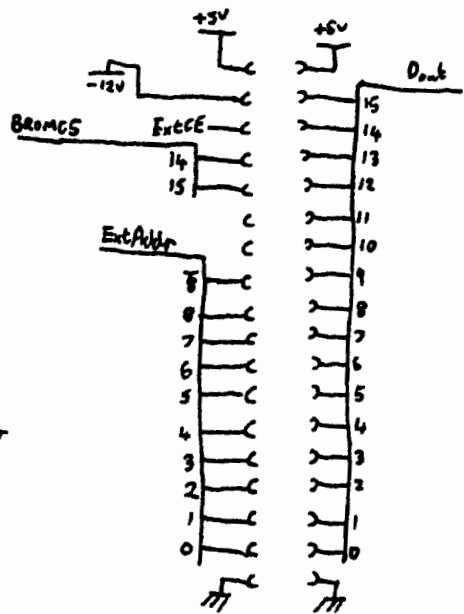
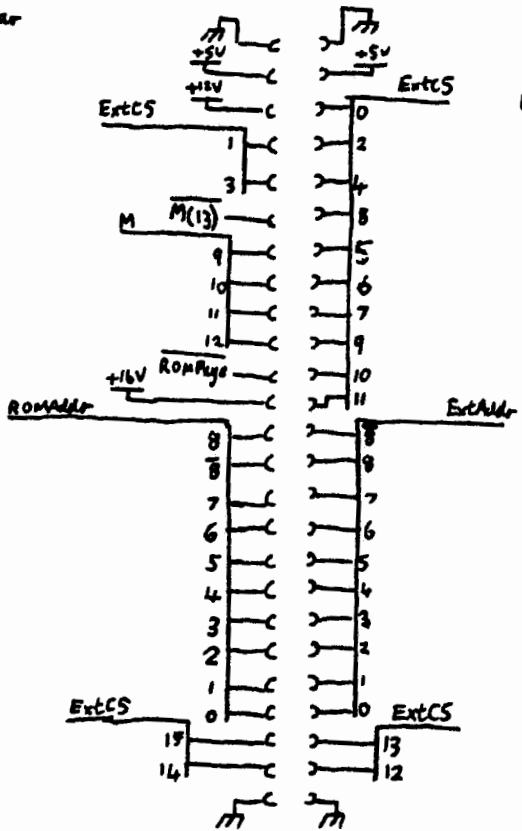
Memory Address



(LH Connector)



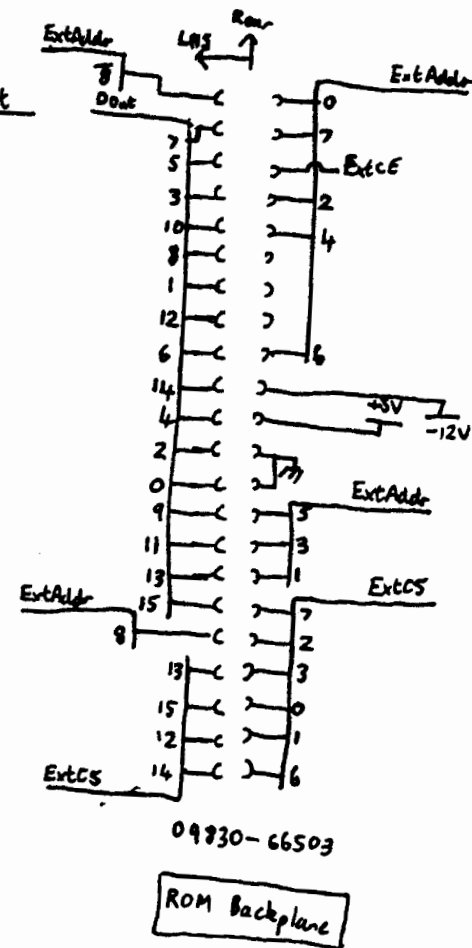
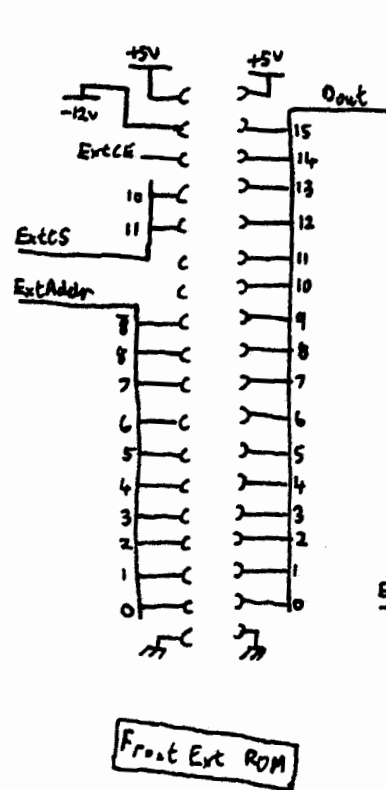
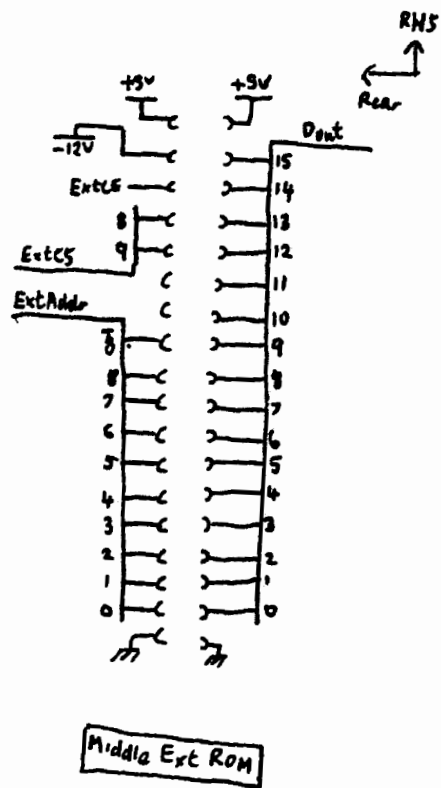
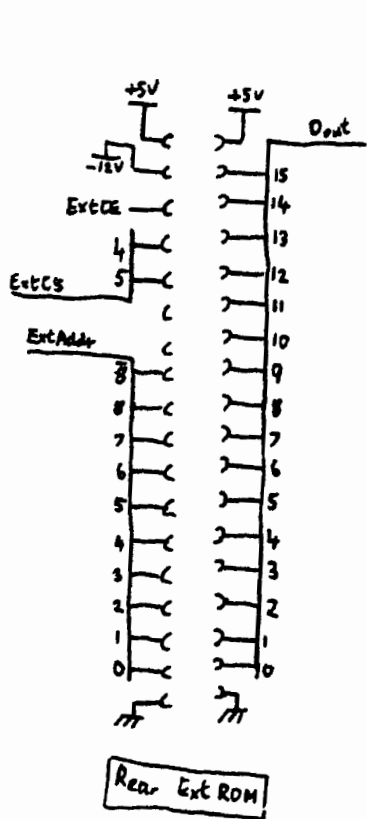
RHS
Rear

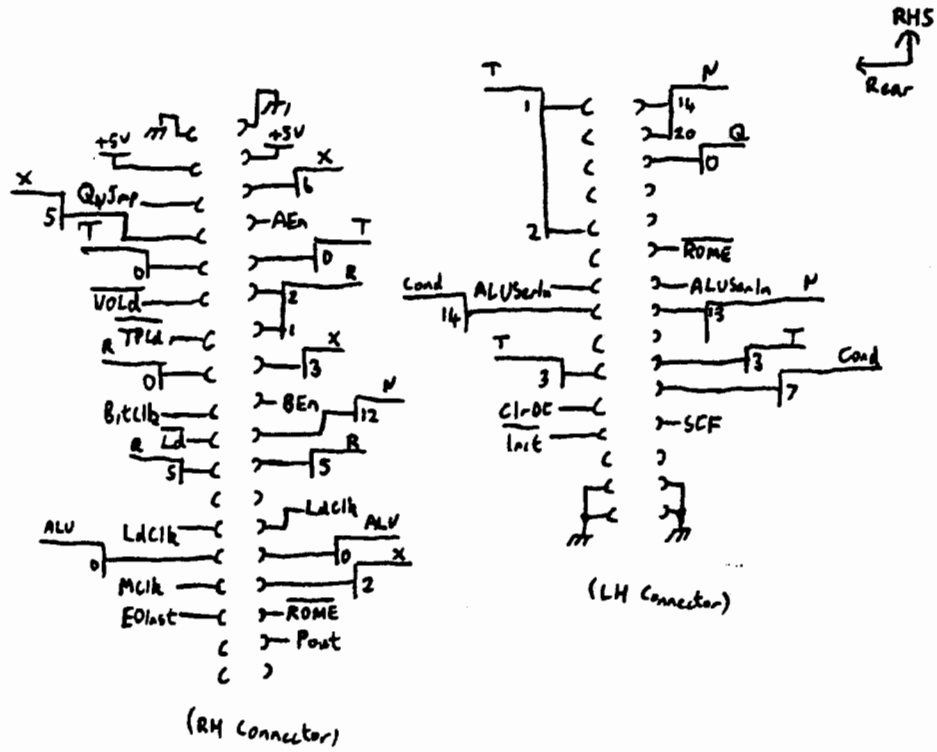


09830-66526
ROM

09830-66525
Ext ROM Selector

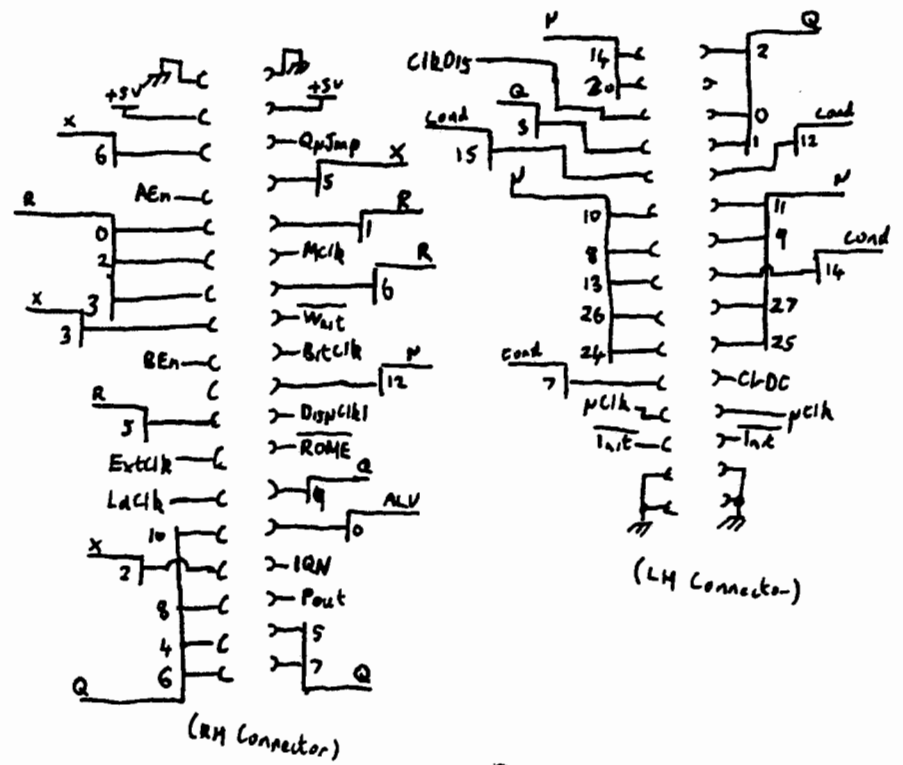
09830-66521
ROM





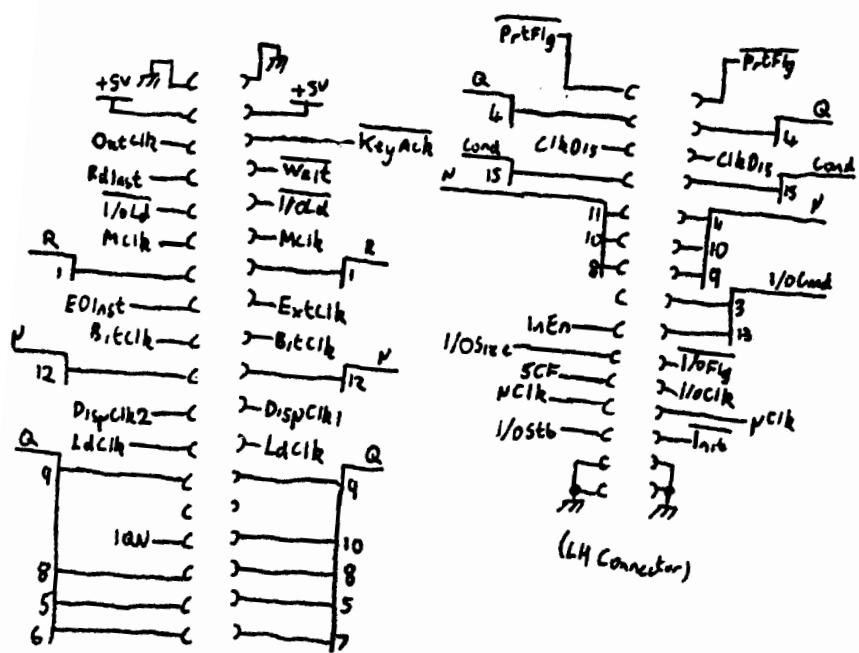
09810-66514

CPU Data Path



09810-66513

CPU Control

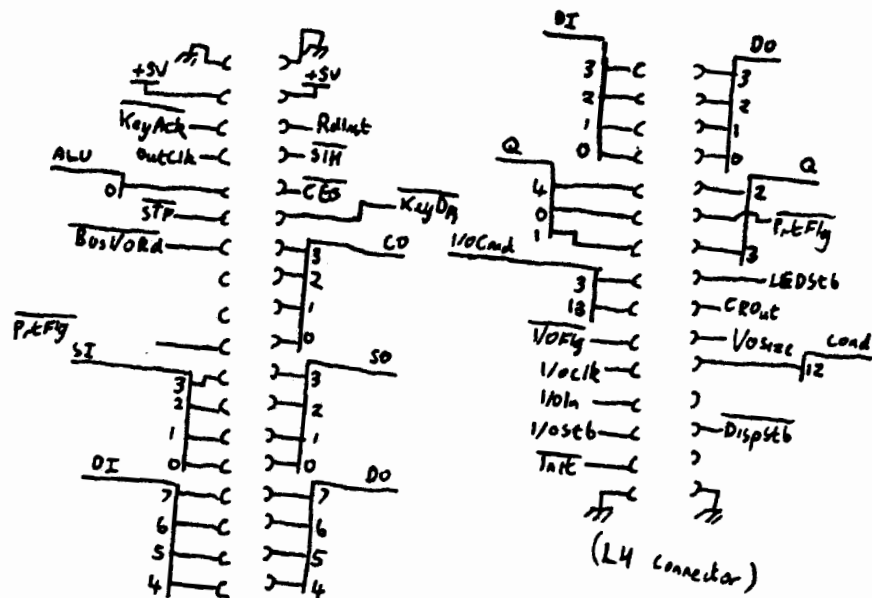


(RH Connector)

09810-66512

Clock

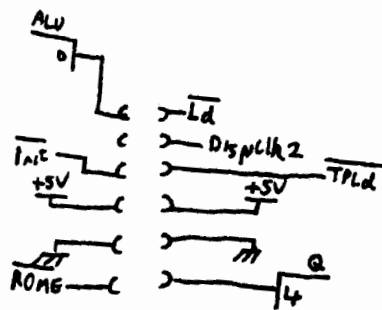
RHS
Rear



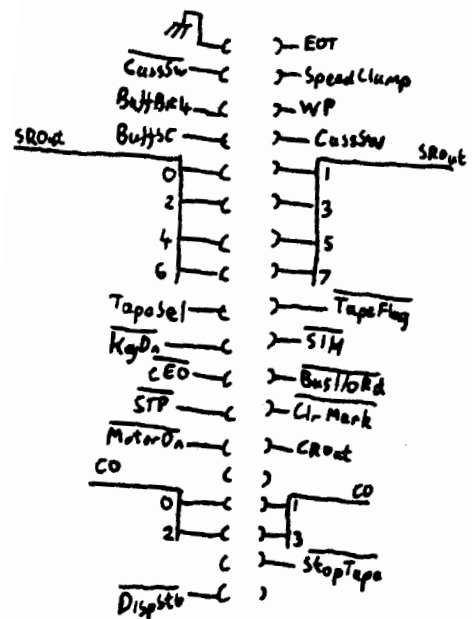
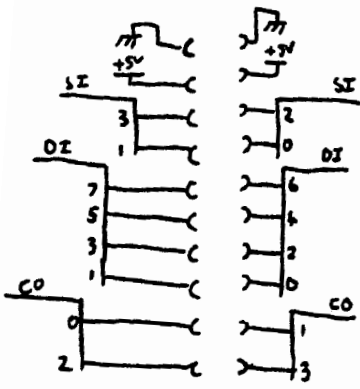
(RH Connector)

09810-66511

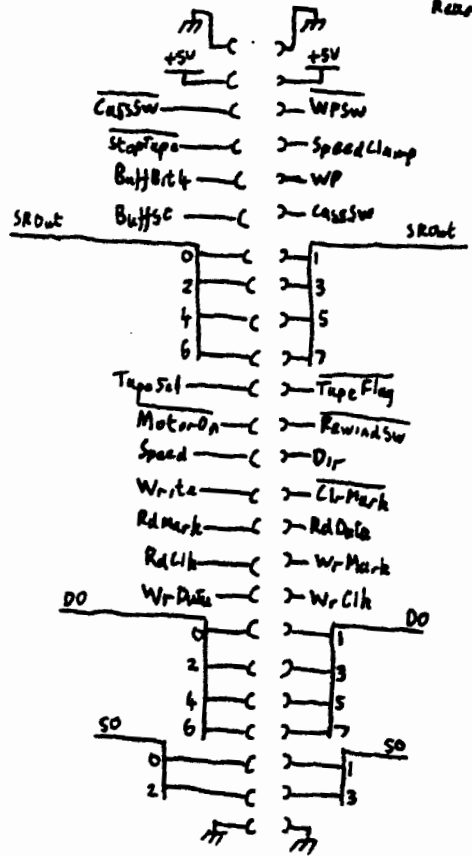
I/O Interface



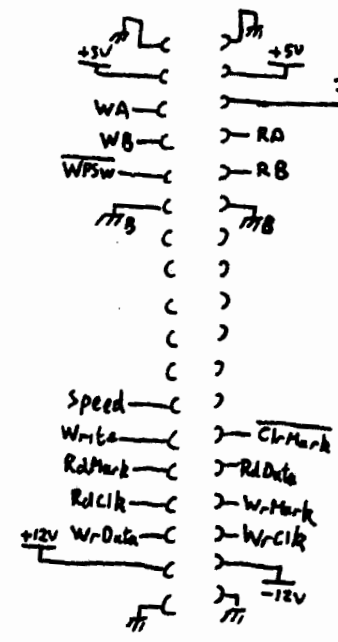
Test Connector



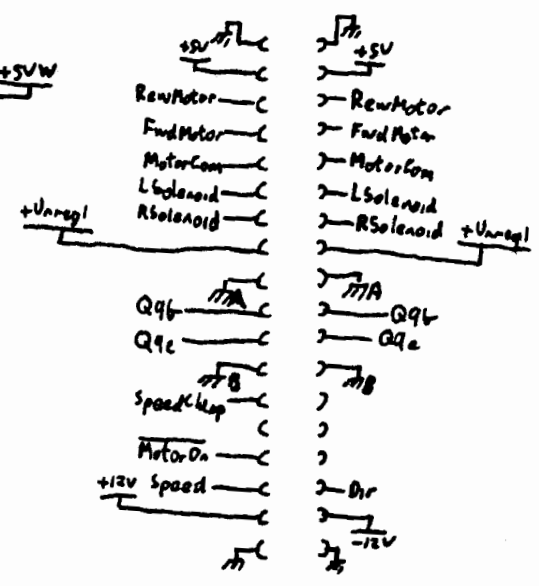
09830-66561
Tape Interface



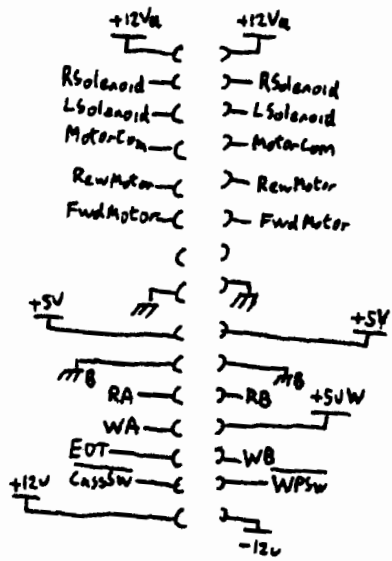
09865-66562
Tape Controller



09865-66563
Read/Write

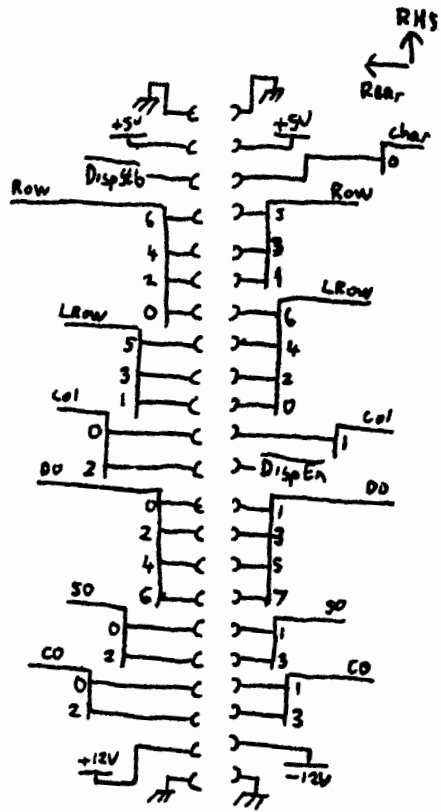


09865-66564
Motor Control



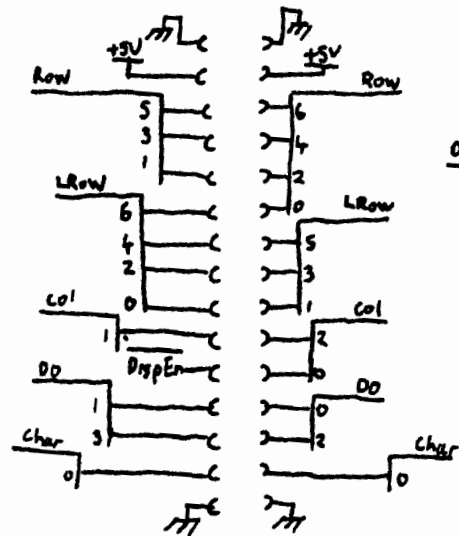
09830-66565

Tape Drive



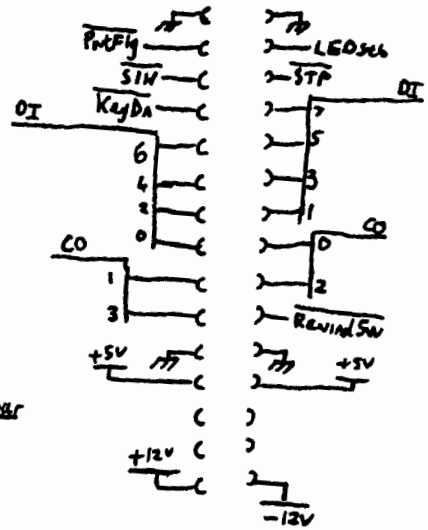
09830-66542

Display Driver



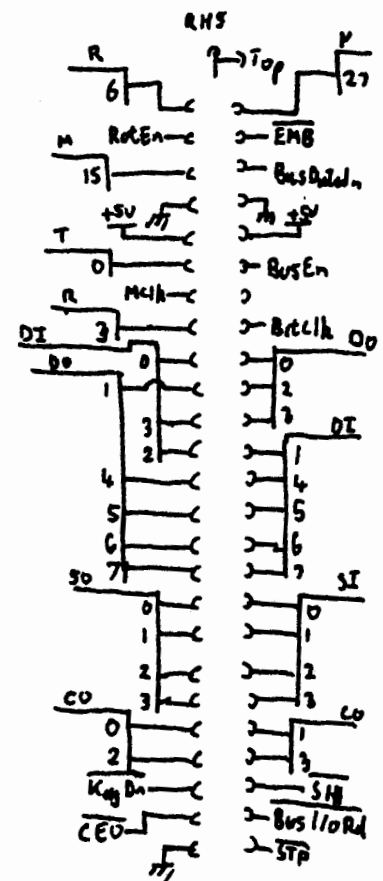
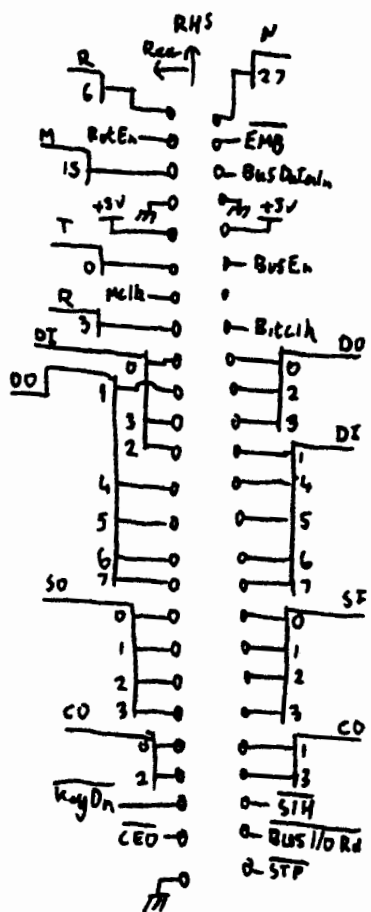
09830-66541

Display



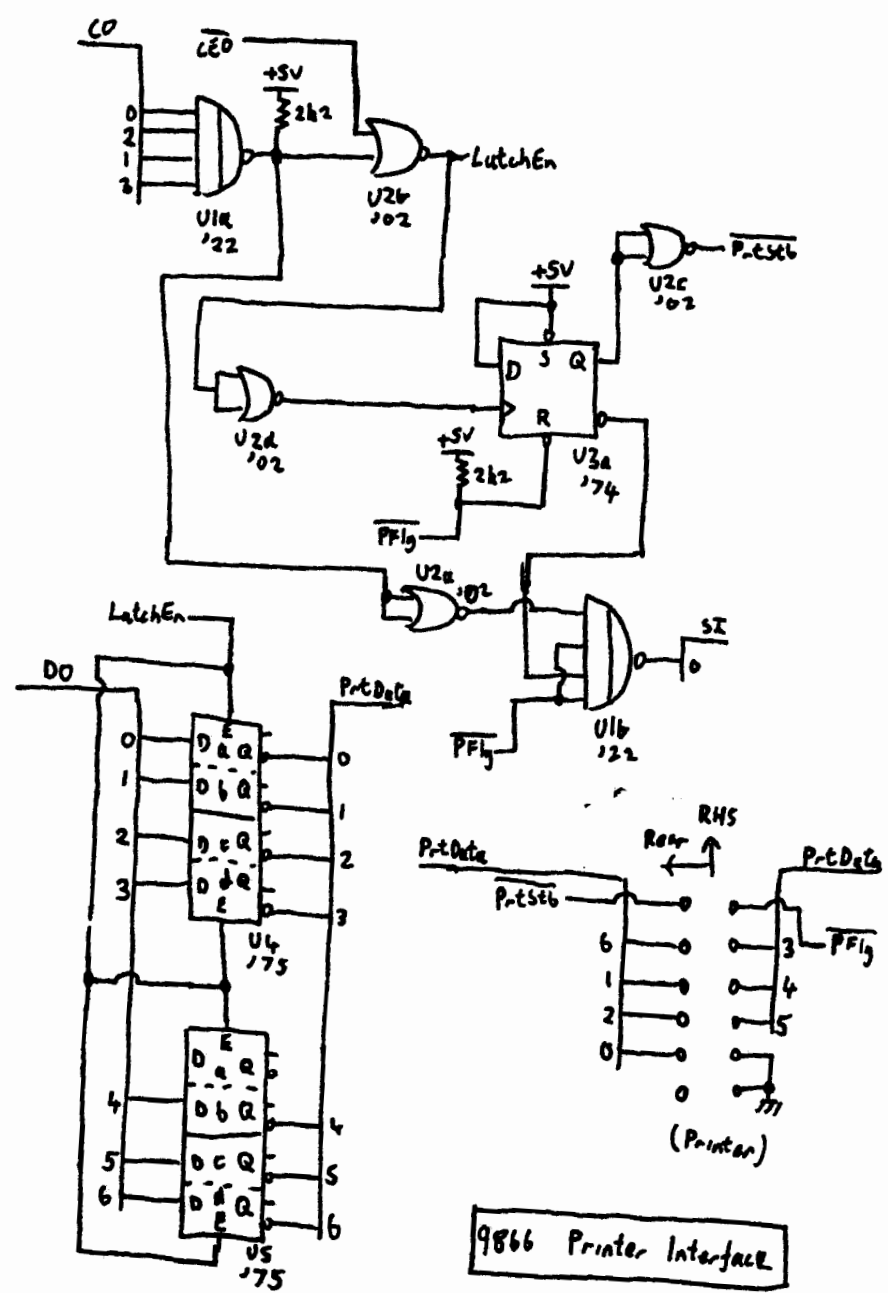
09830-66534

Keyboard



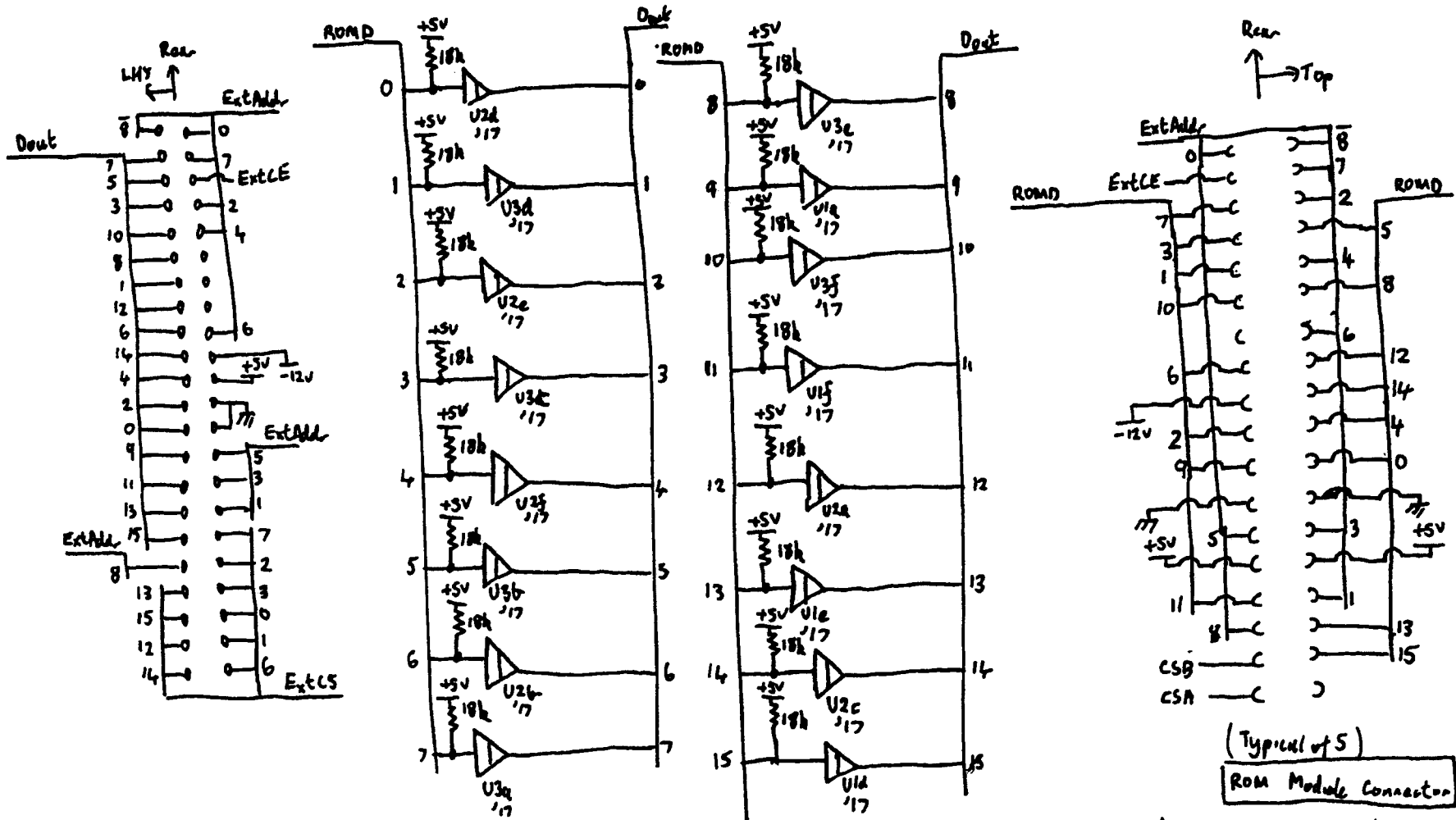
(Typical of 4)
I/O Connector

HP9830 I/O Backplane



9866 Printer Interface

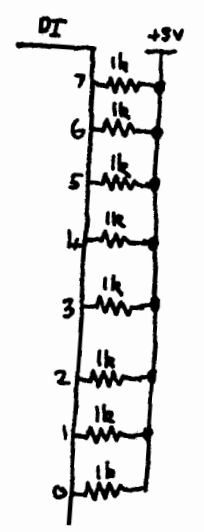
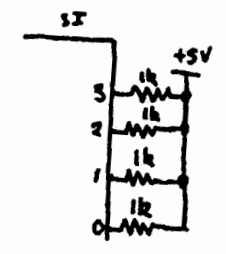
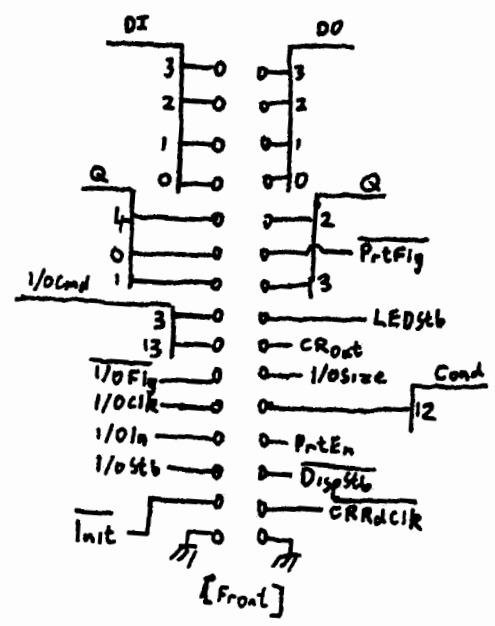
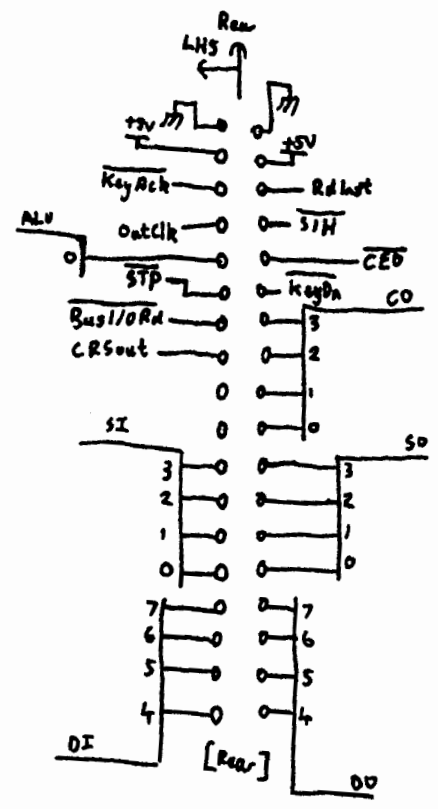
09830-66502



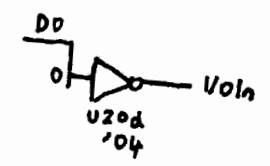
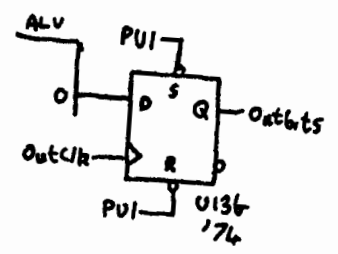
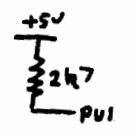
Data Buffers

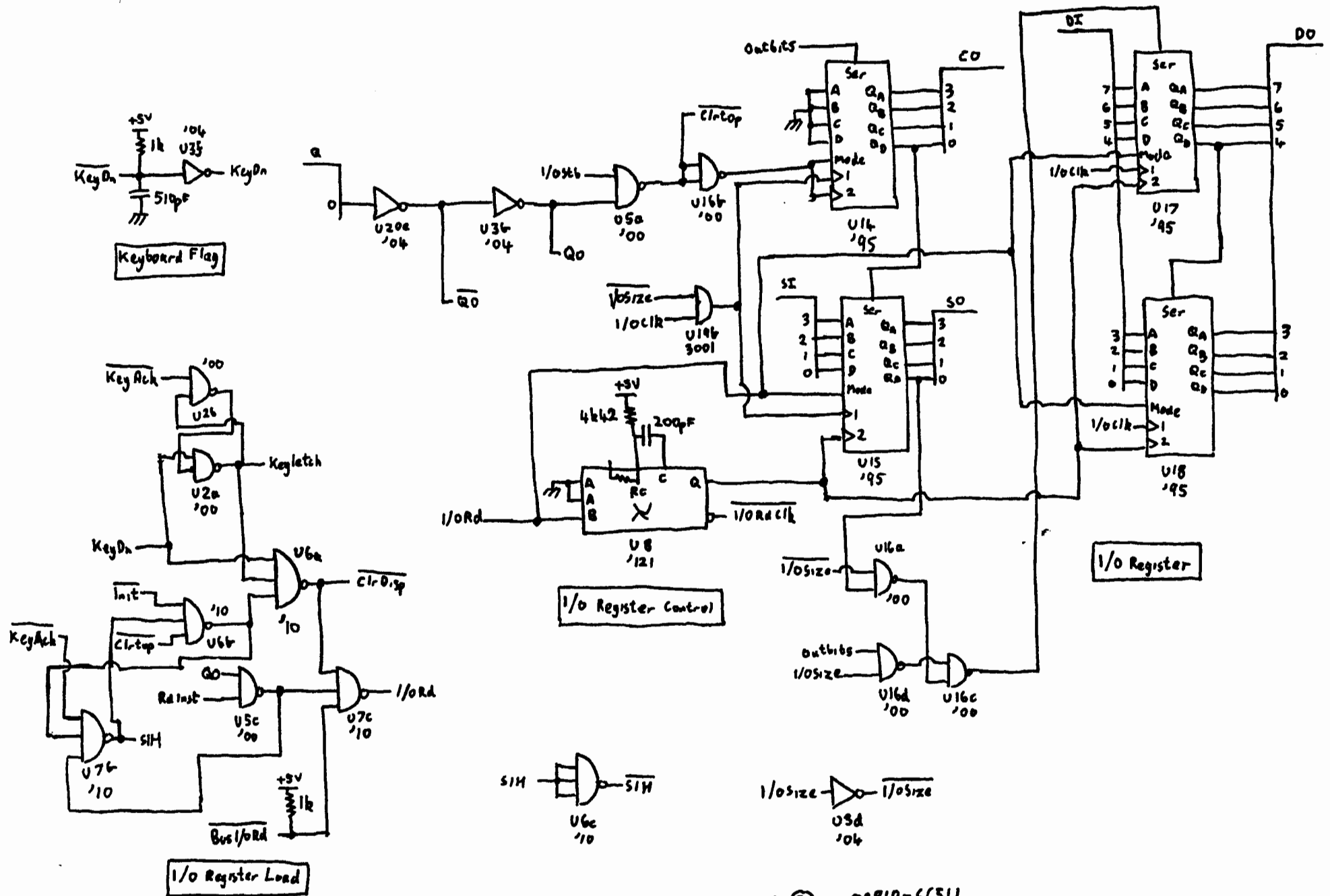
(Typical of 5)
ROM Module Connector

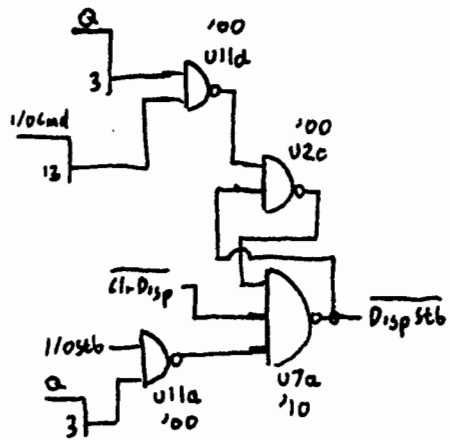
Slot	CSA	CSB
(top) 1	ExtCS(14)	ExtCS(15)
2	ExtCS(12)	ExtCS(13)
3	ExtCS(0)	ExtCS(1)
4	ExtCS(2)	ExtCS(3)
5	ExtCS(6)	ExtCS(7)



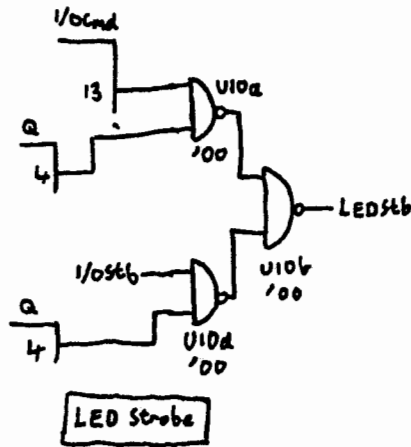
Bus Pull Ups



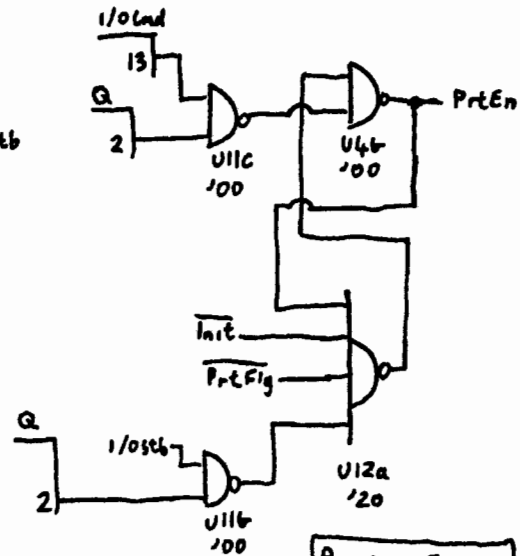




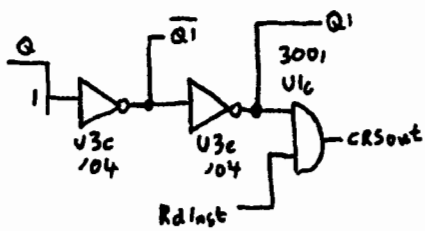
Display Strobe



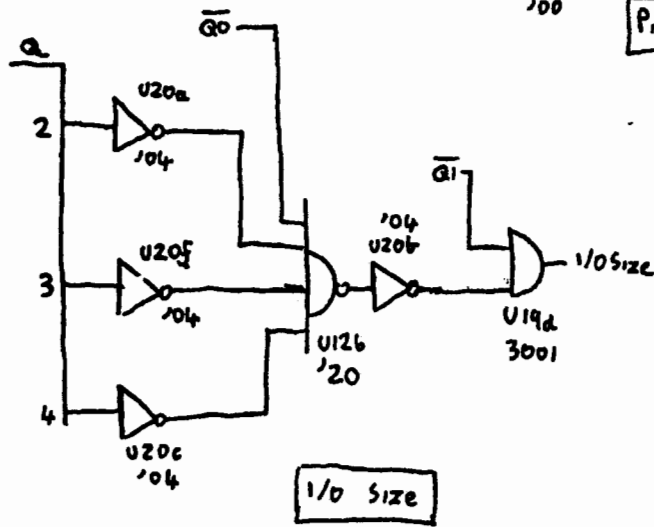
LED Strobe



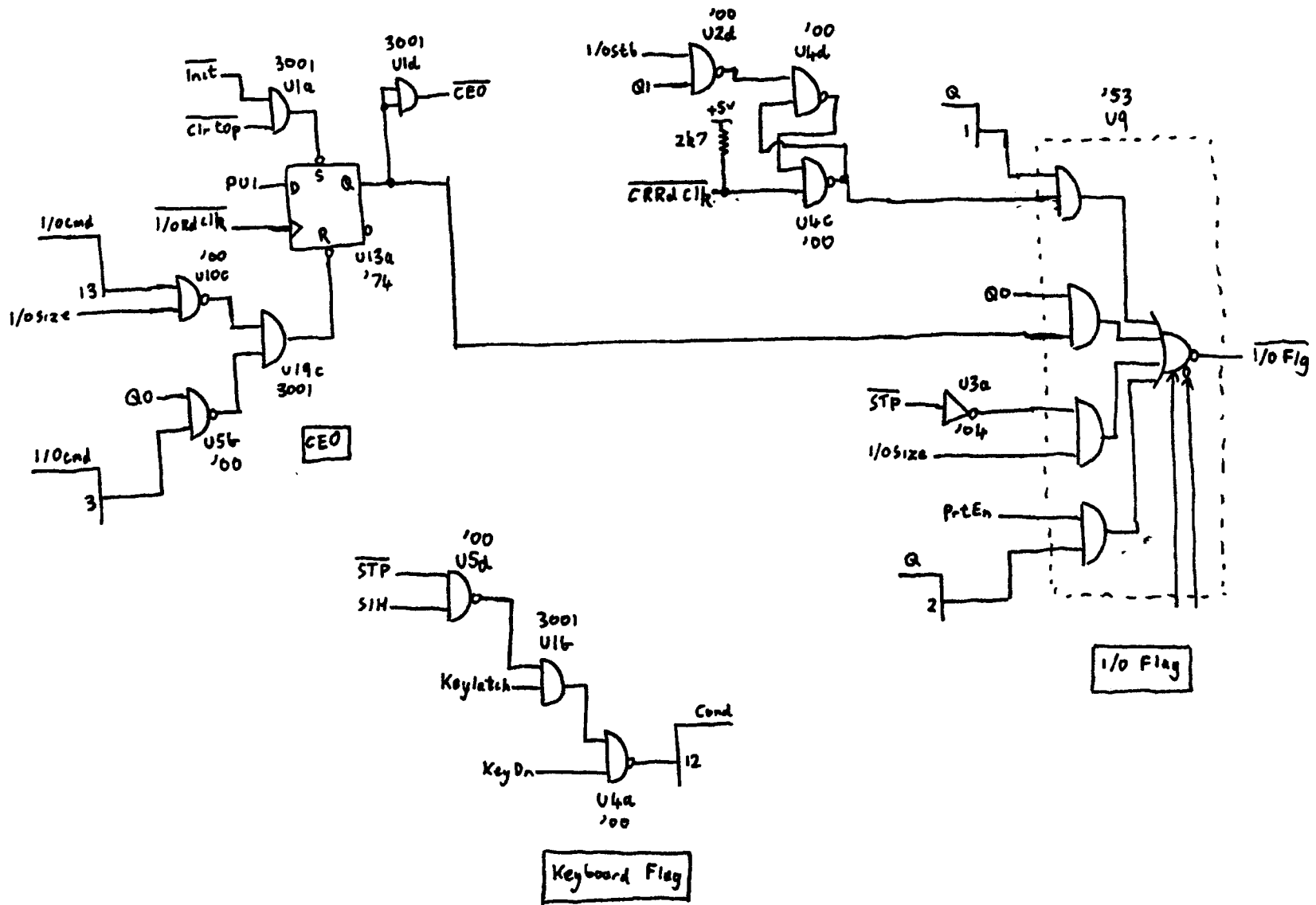
Printer Enable

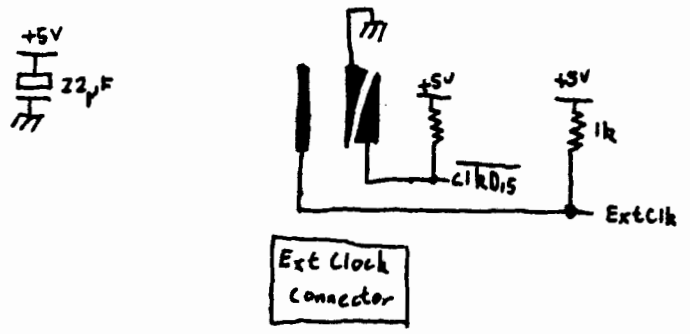
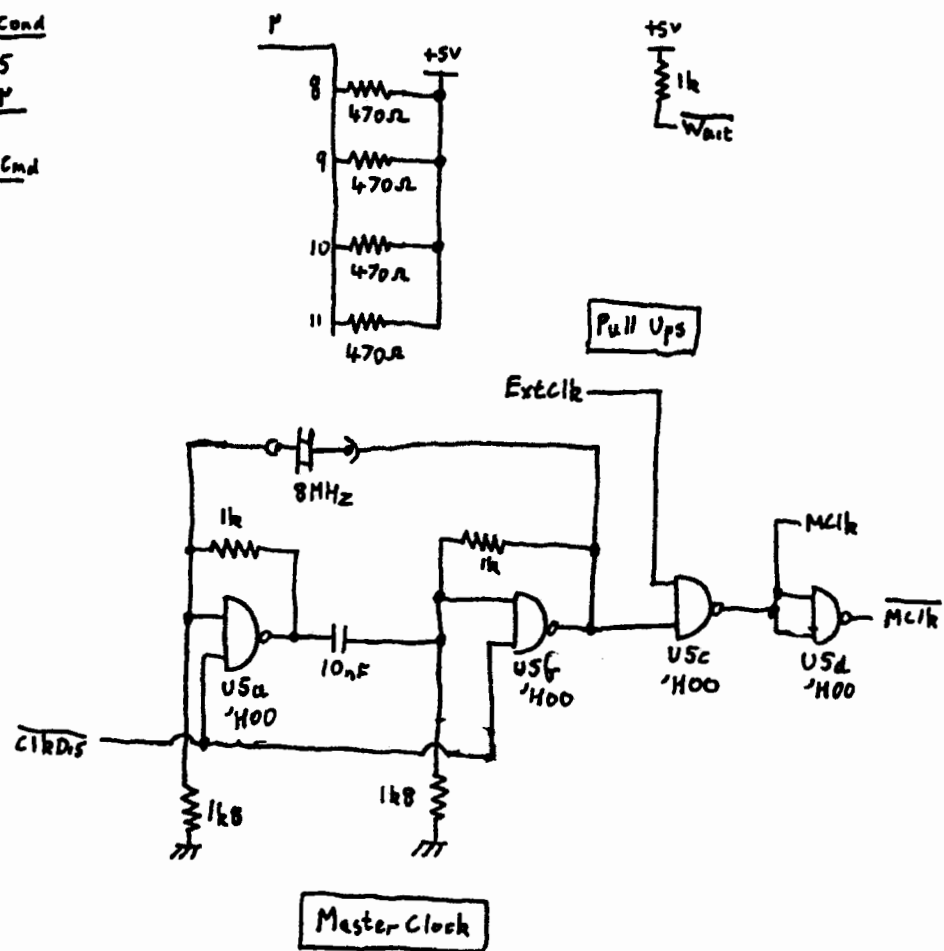
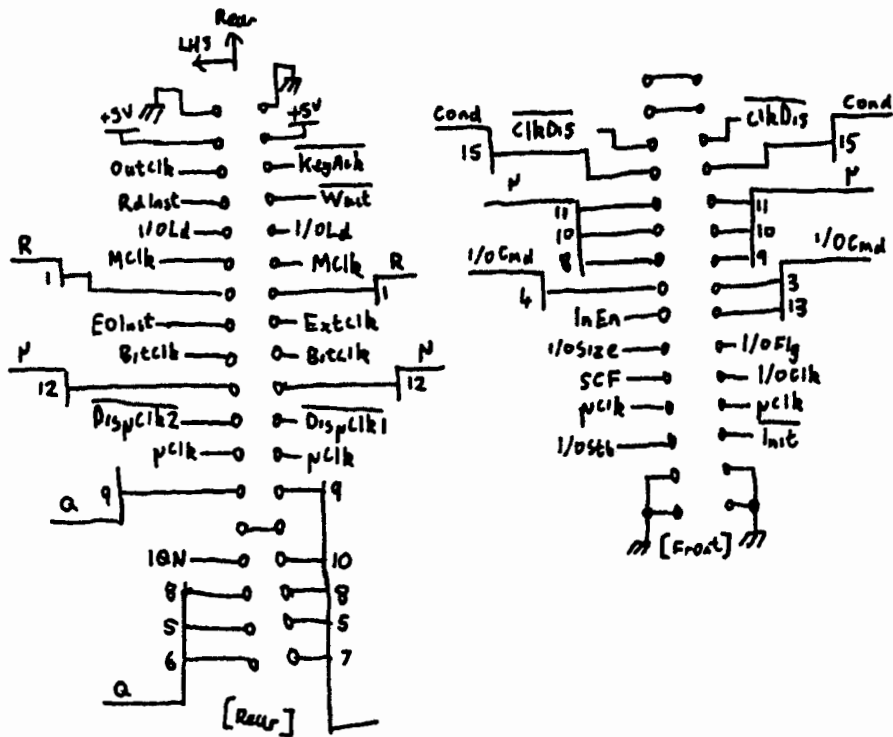


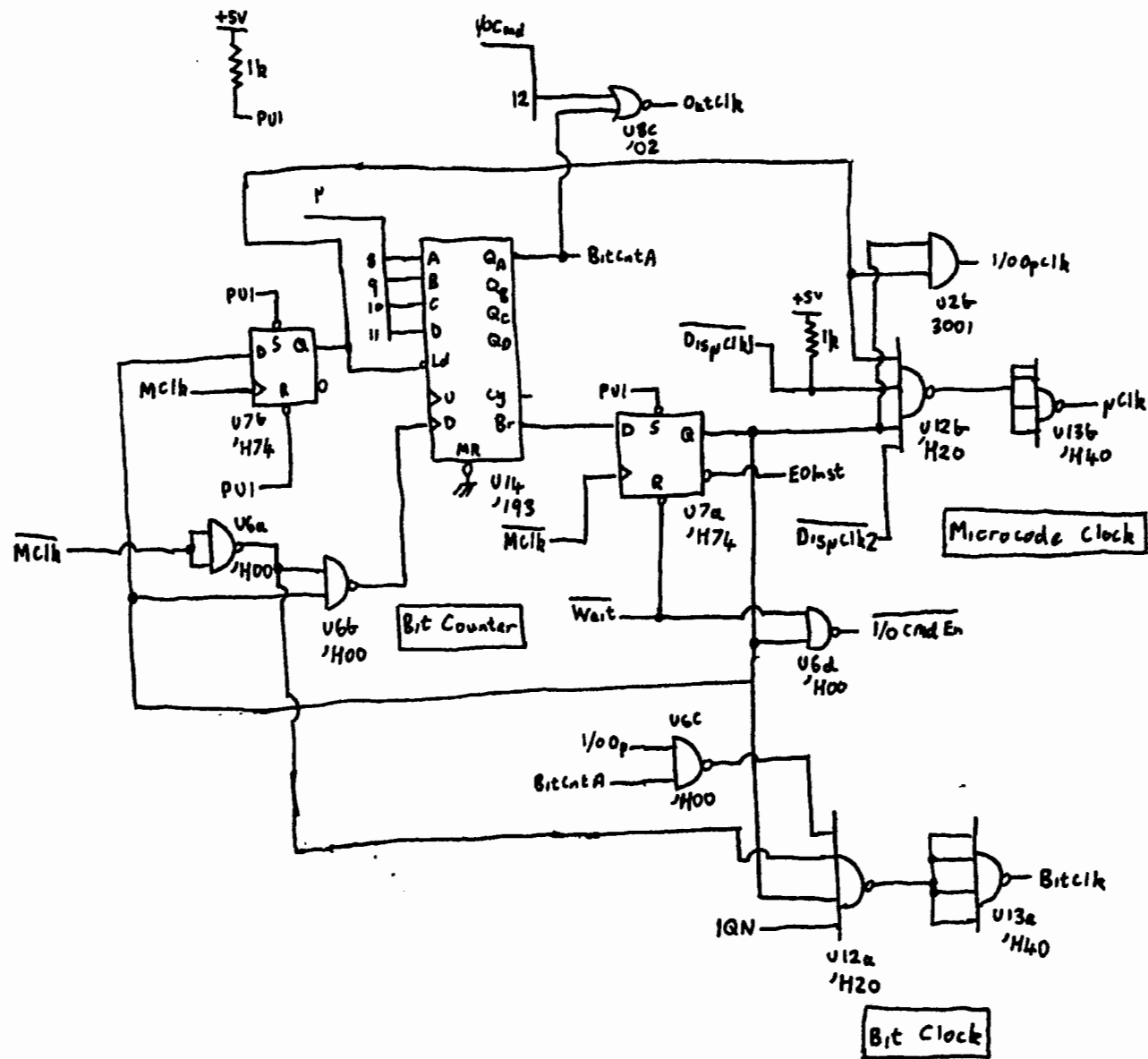
Card Read Strobes

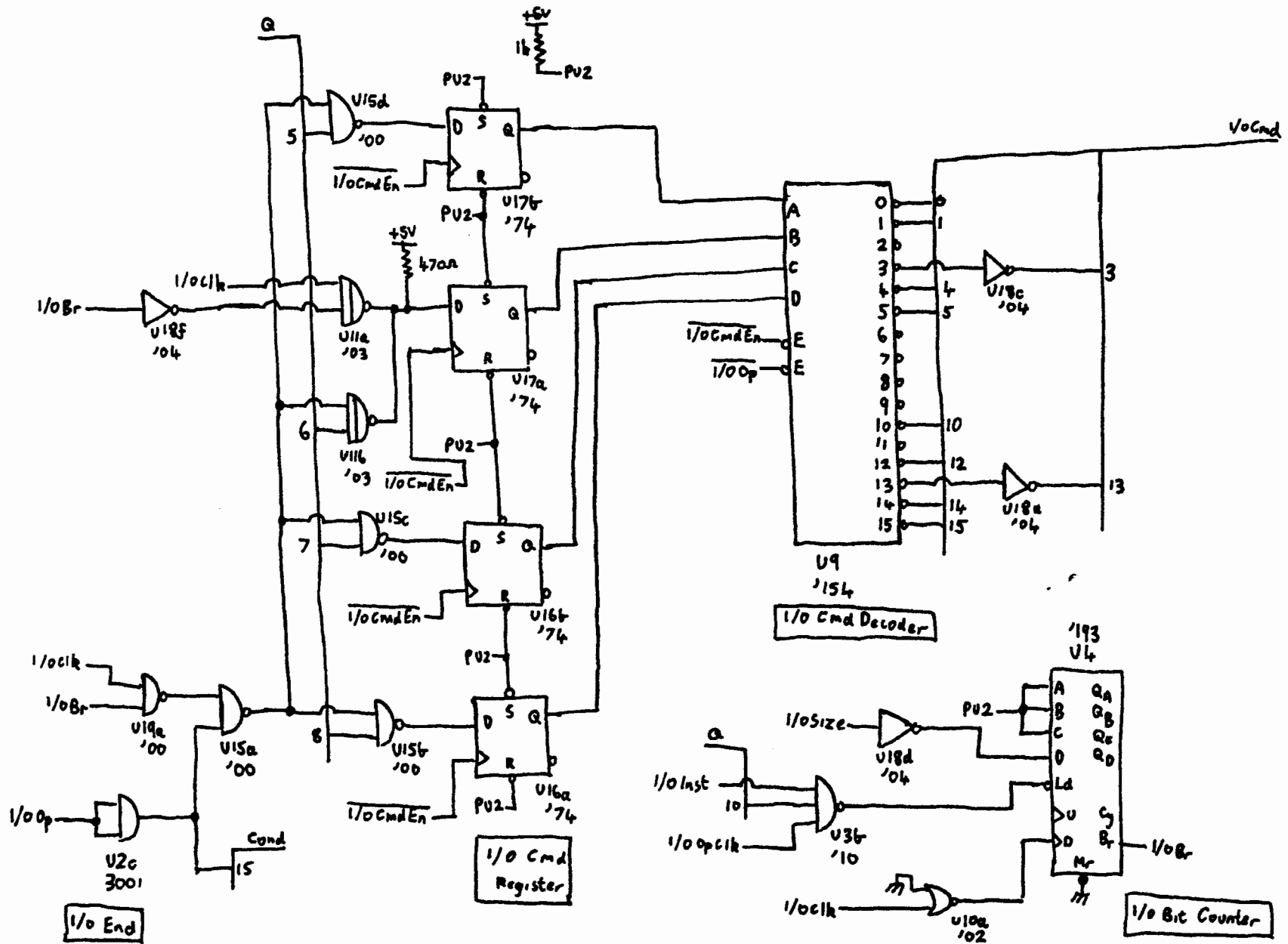


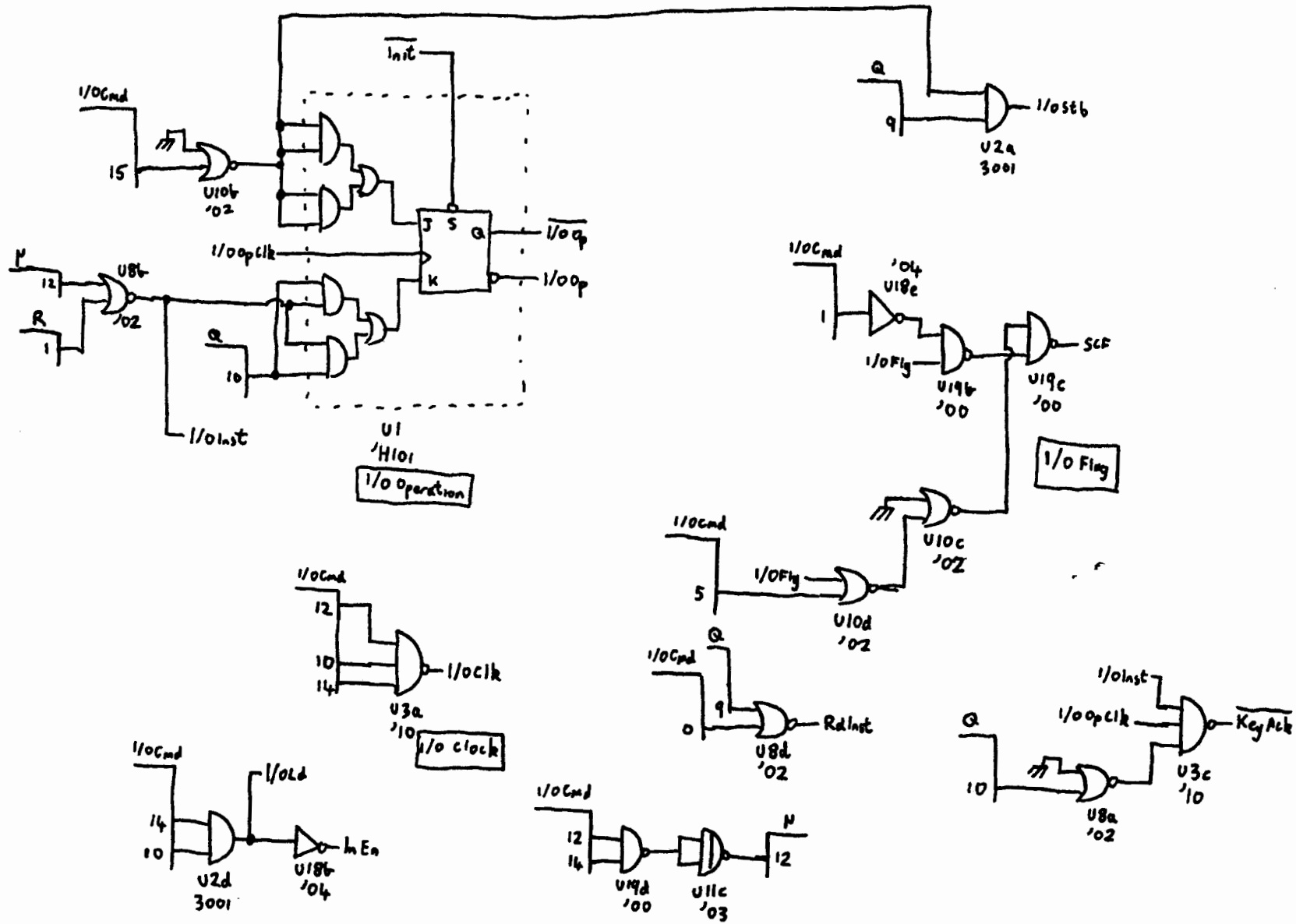
I/O Size



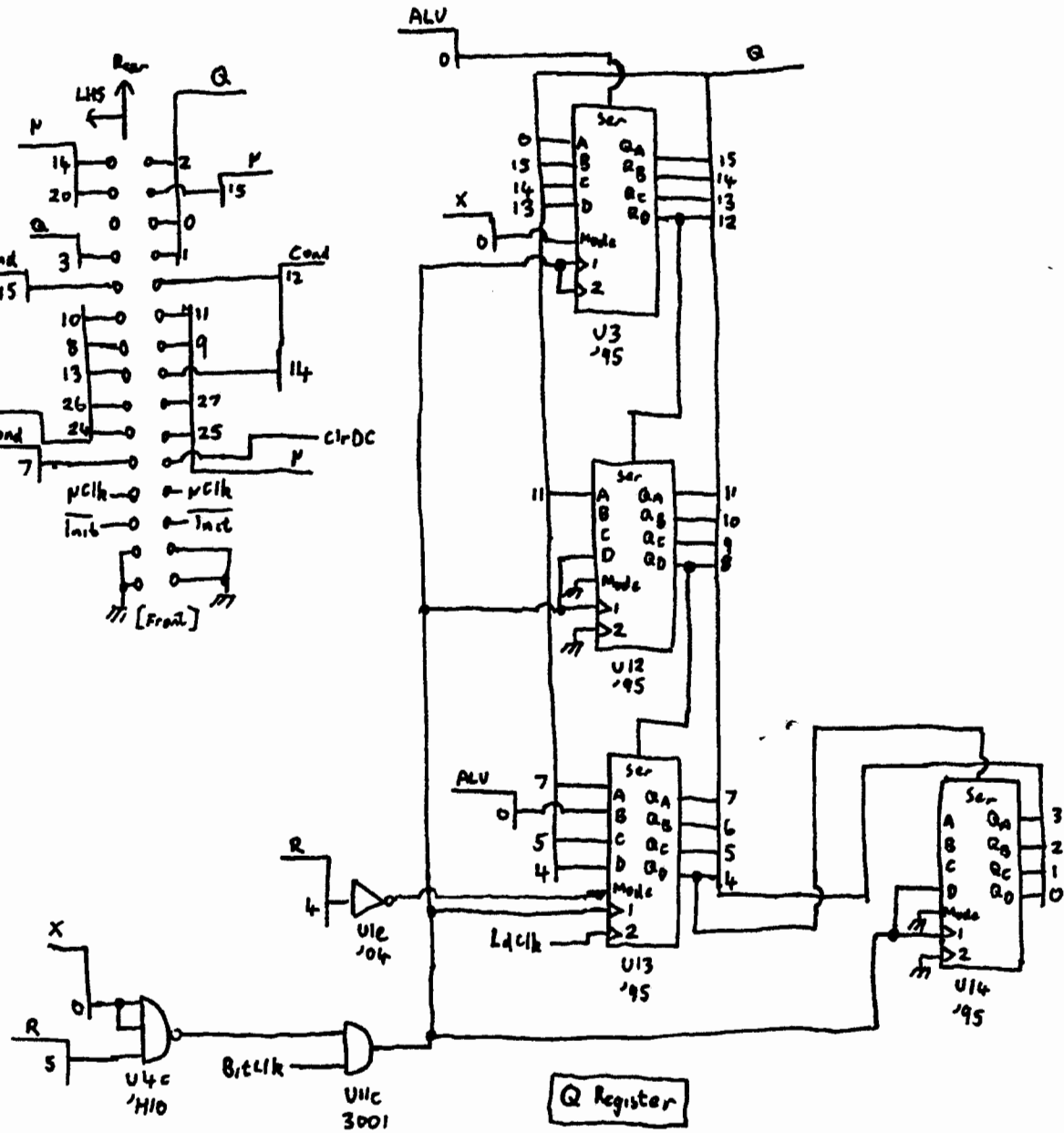
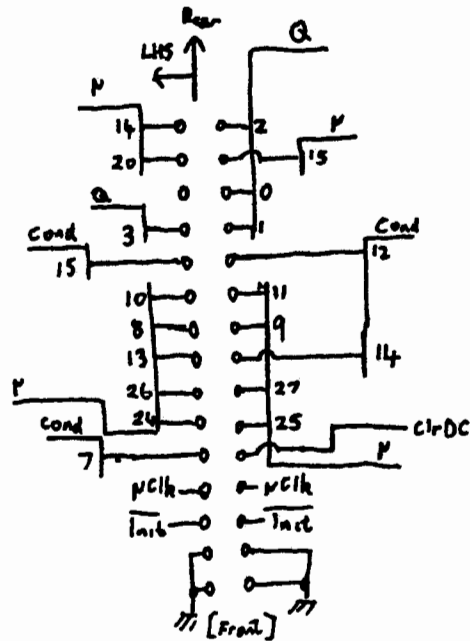
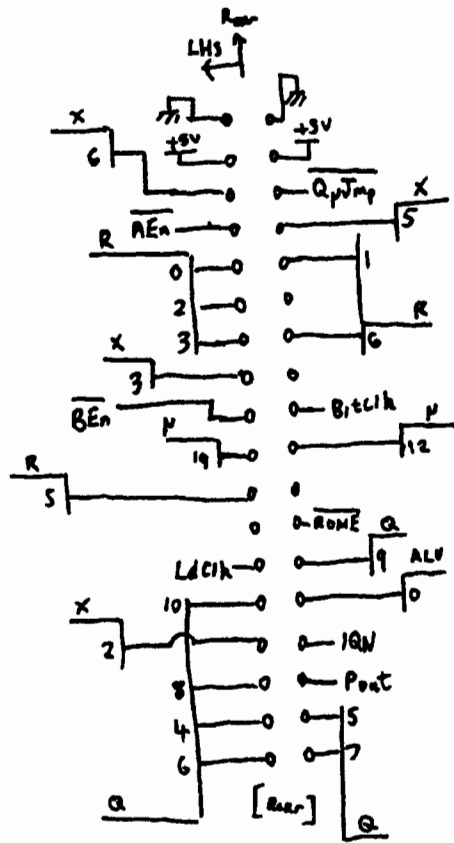


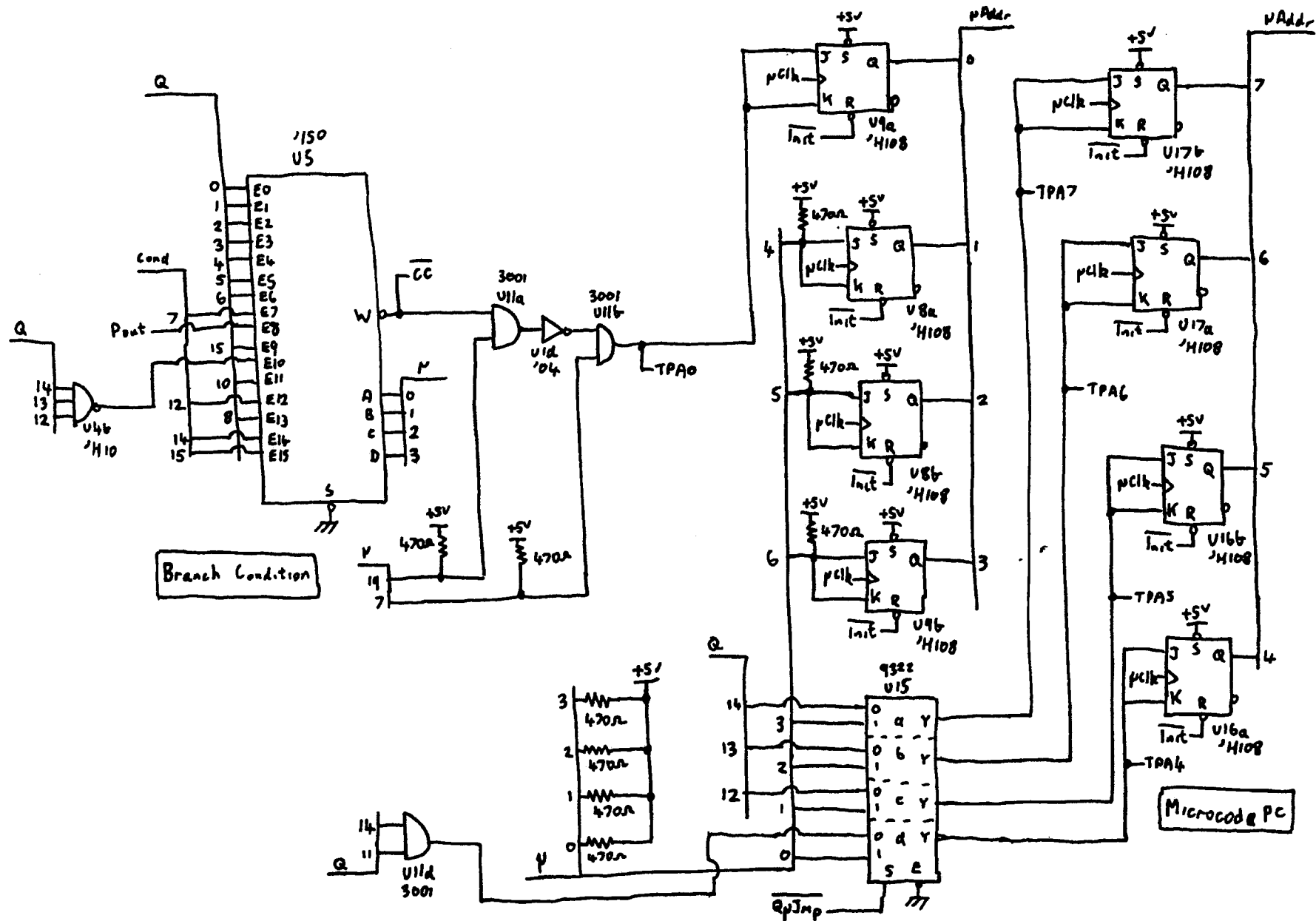


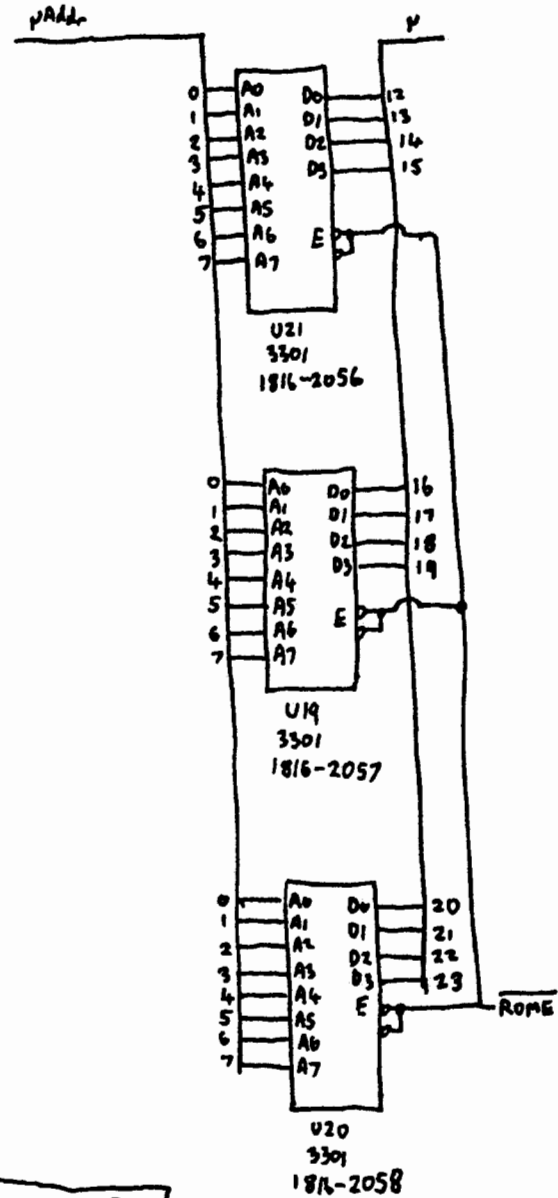
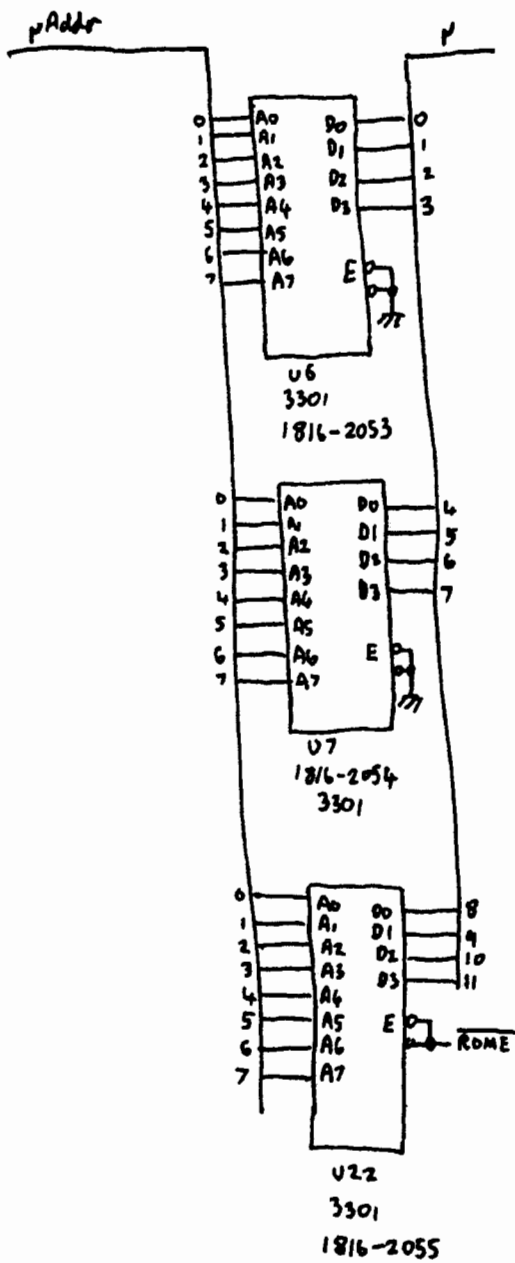




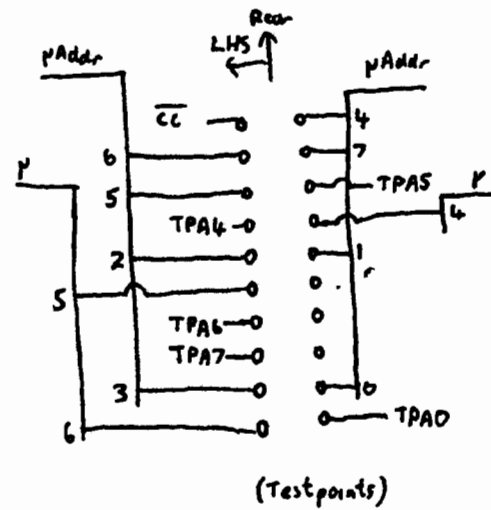
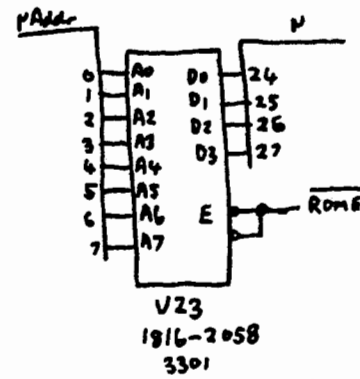
100

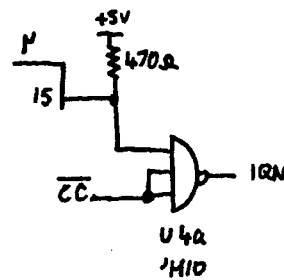
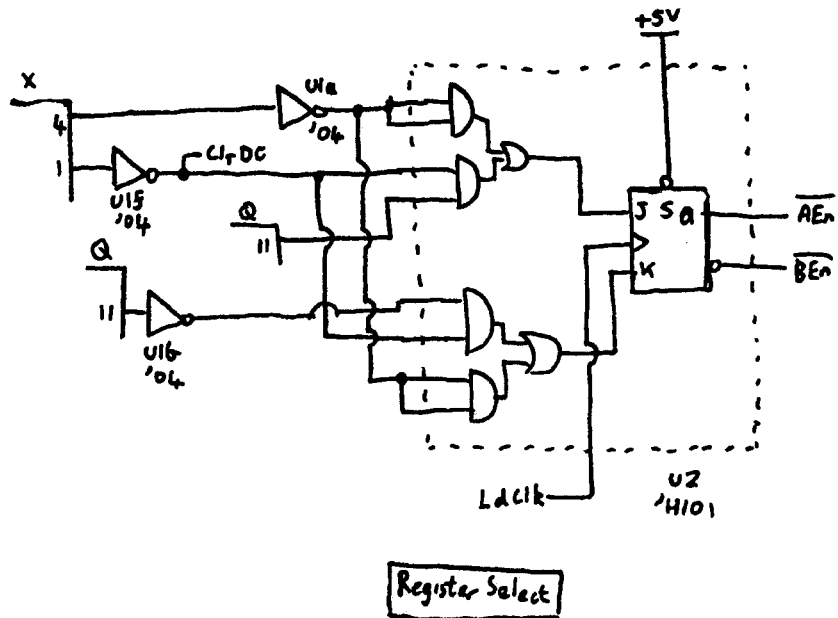
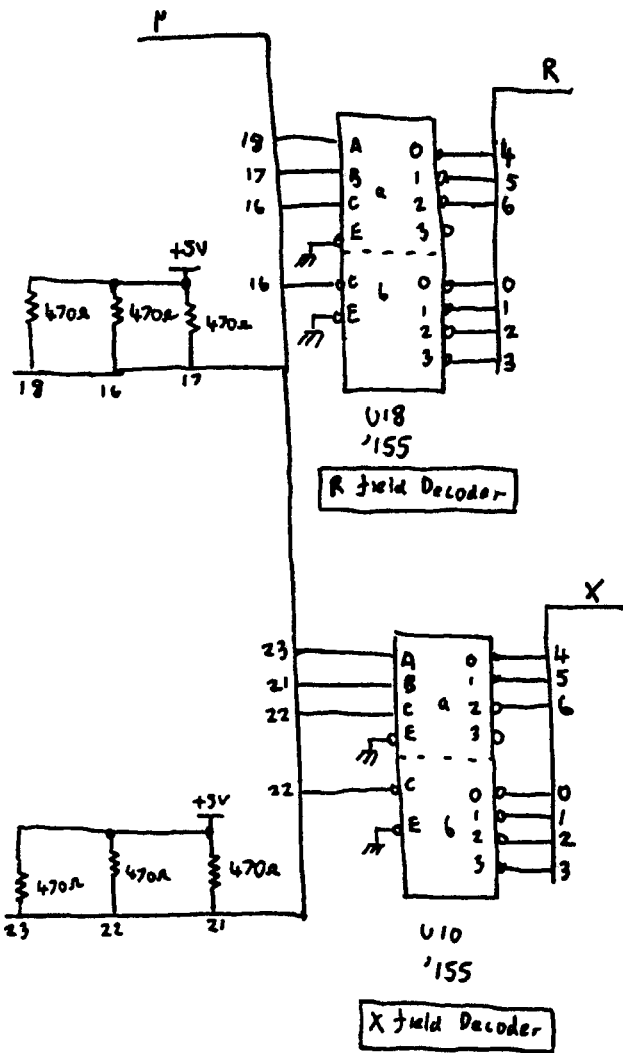




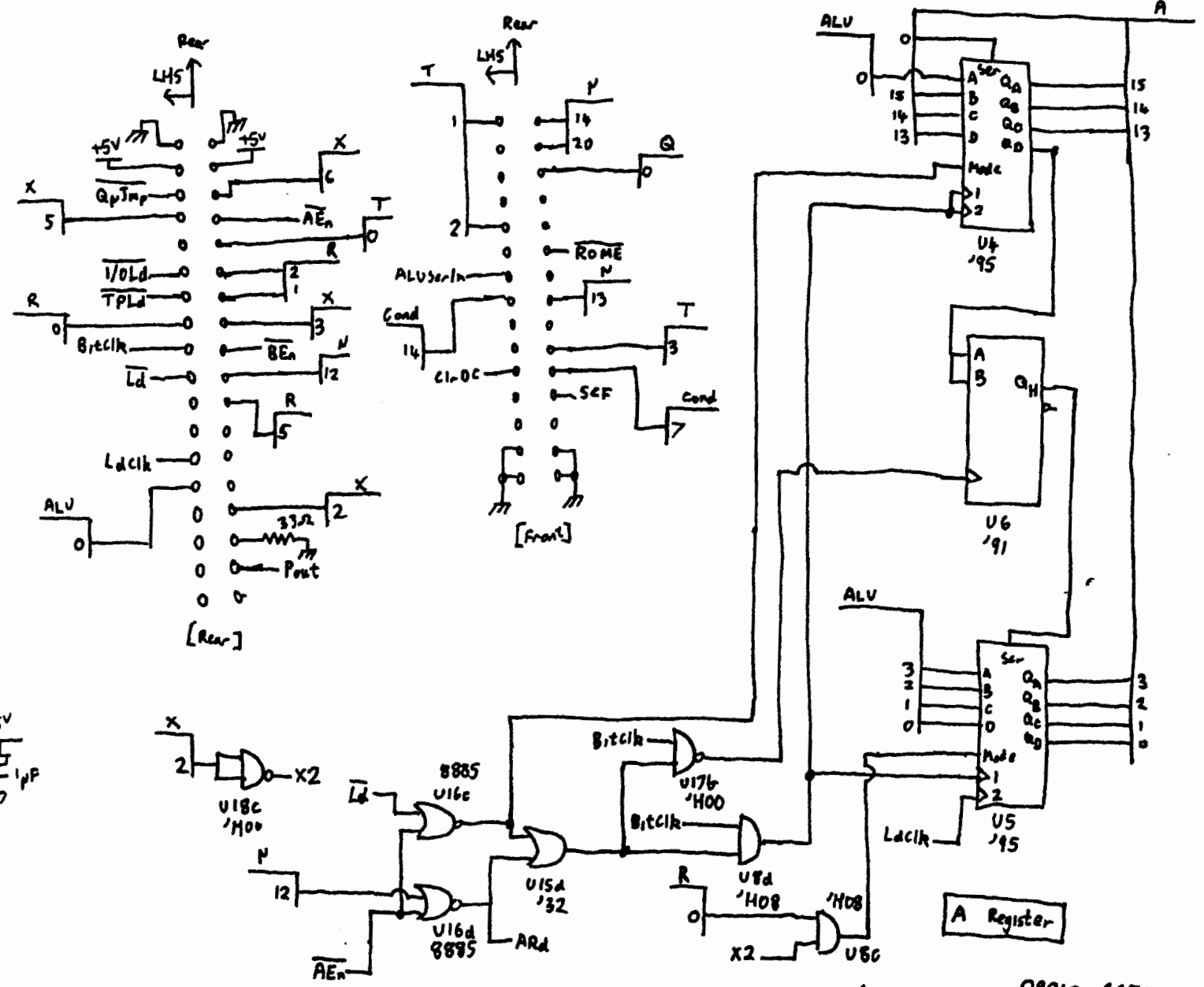


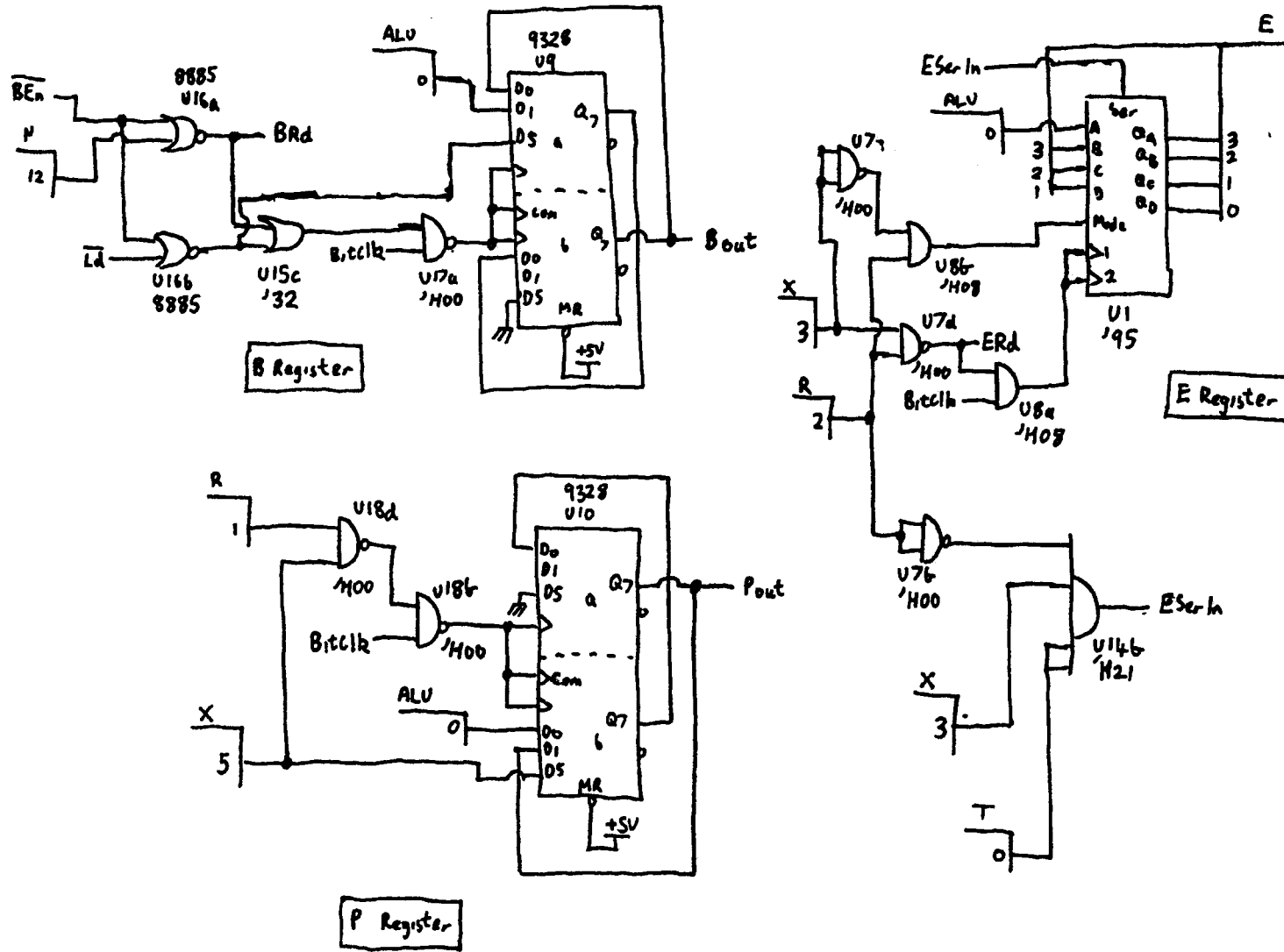
Microcode ROM

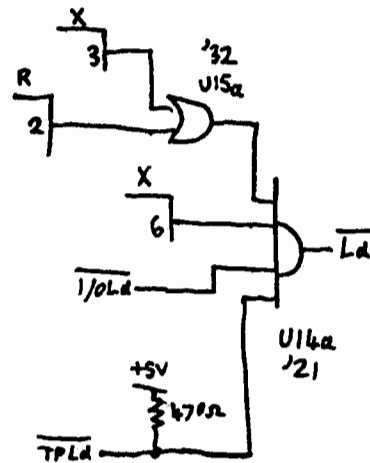
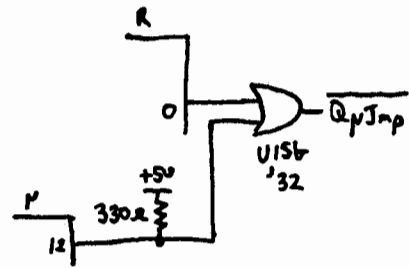
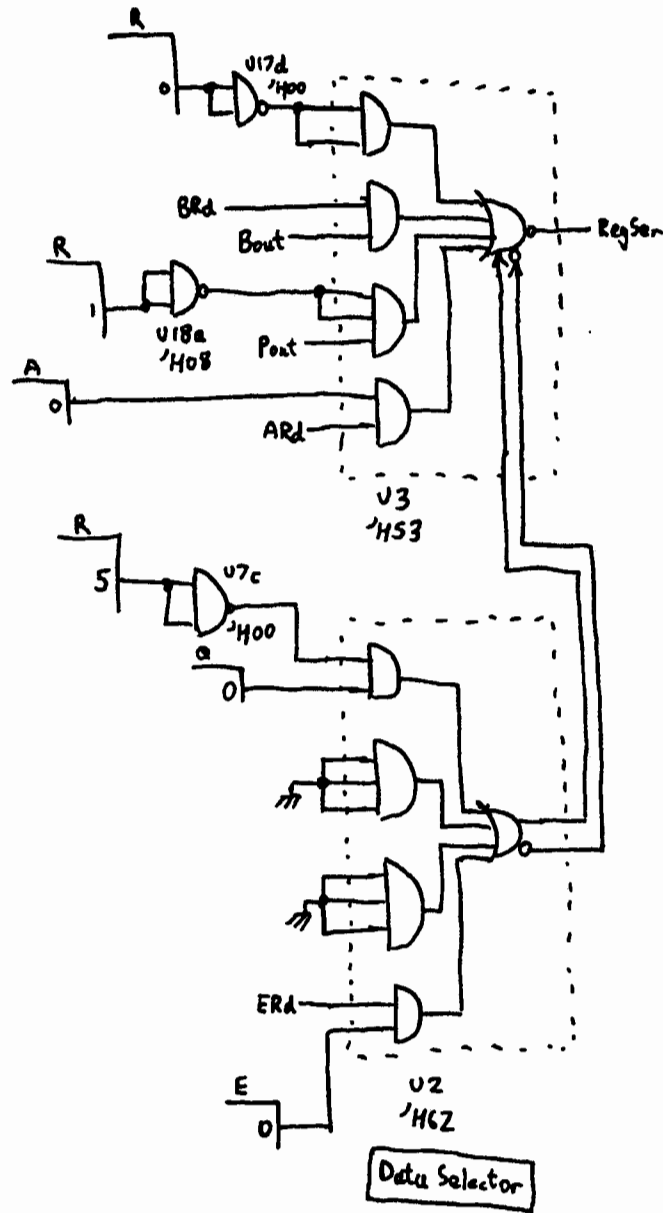


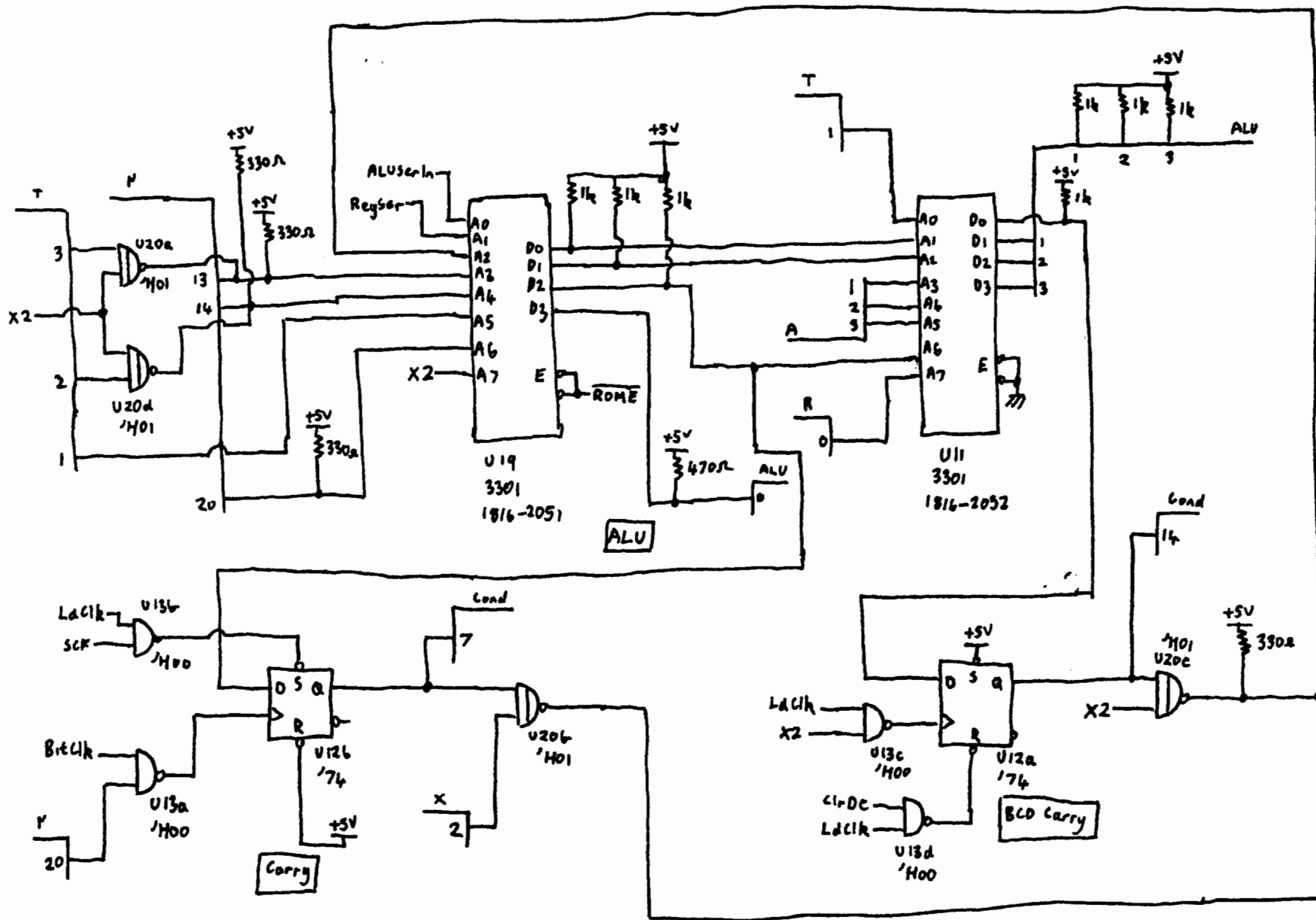


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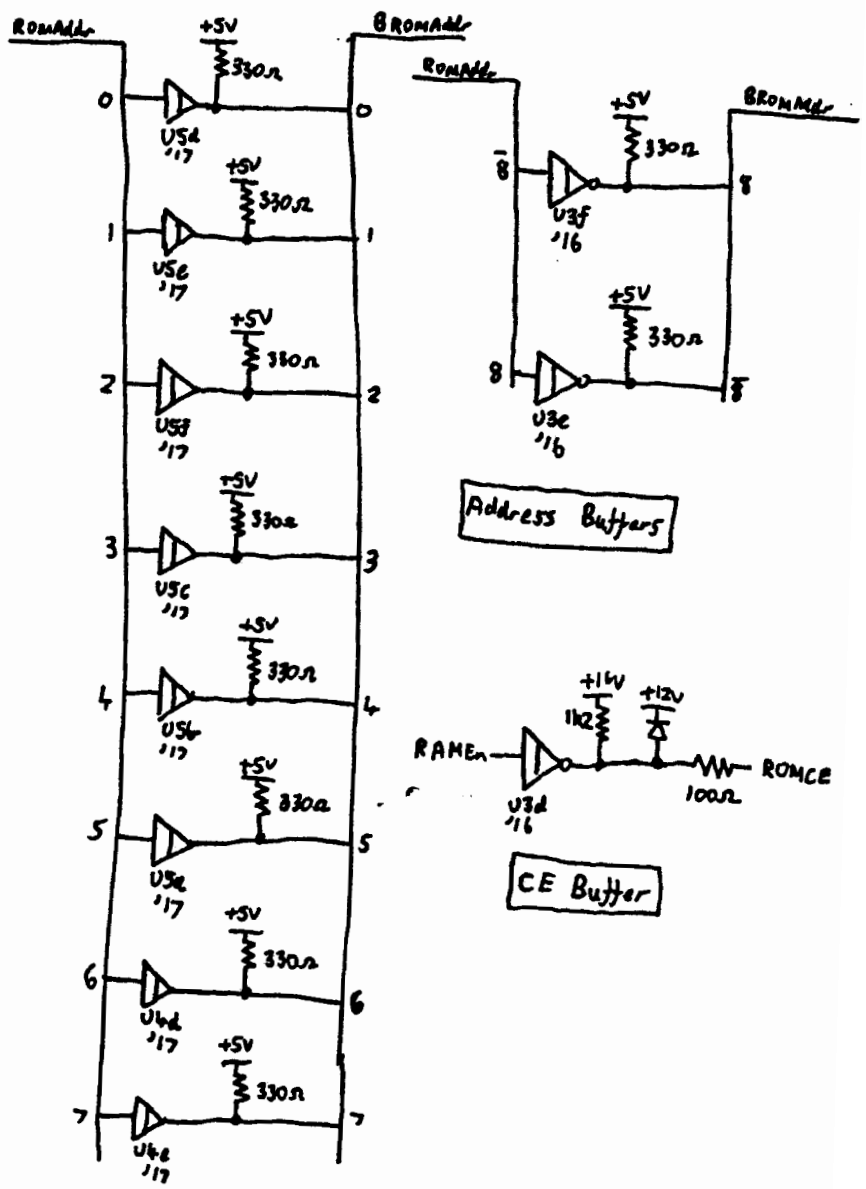
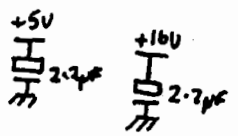
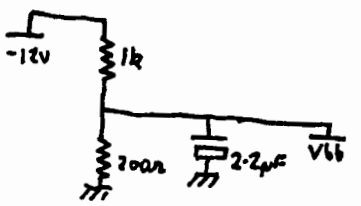
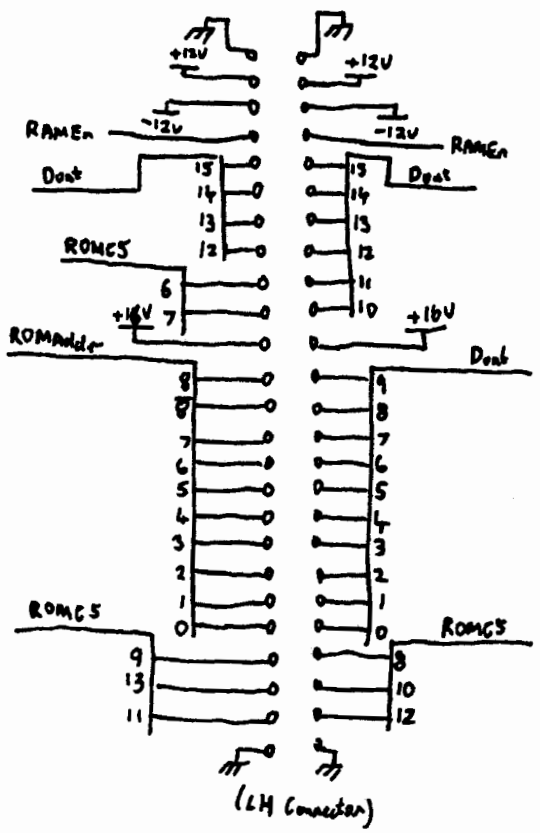
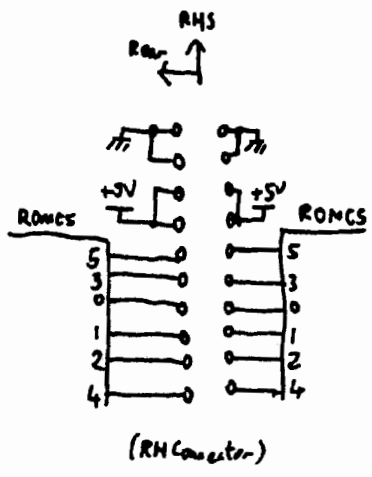


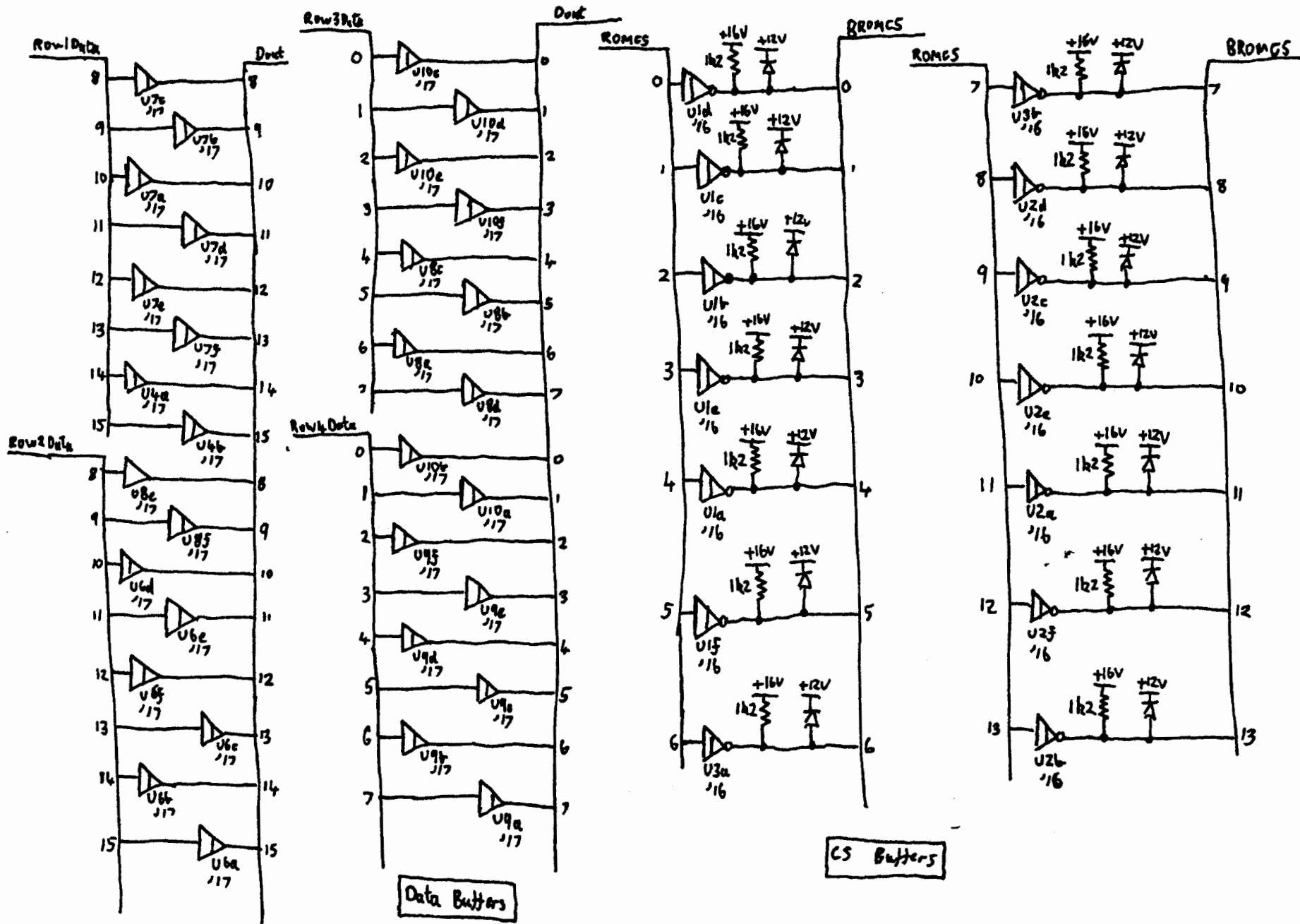


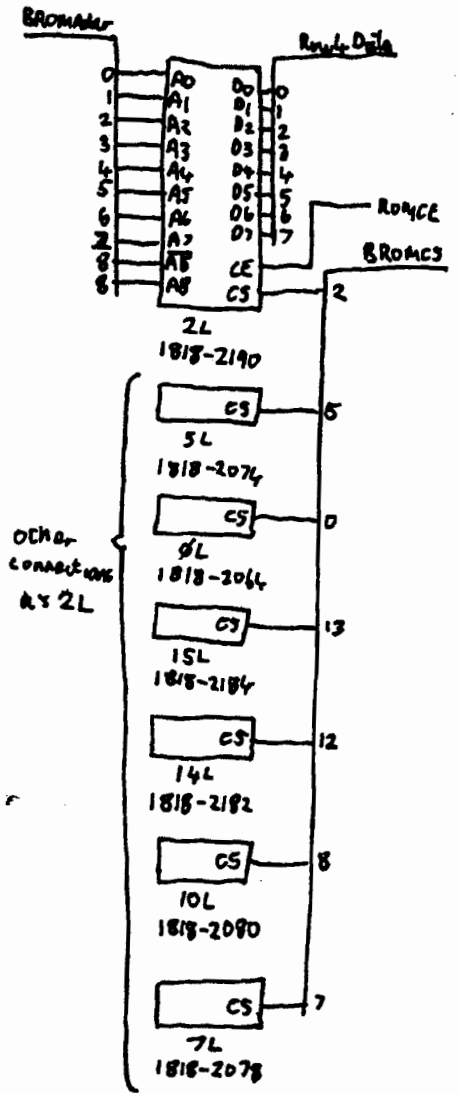
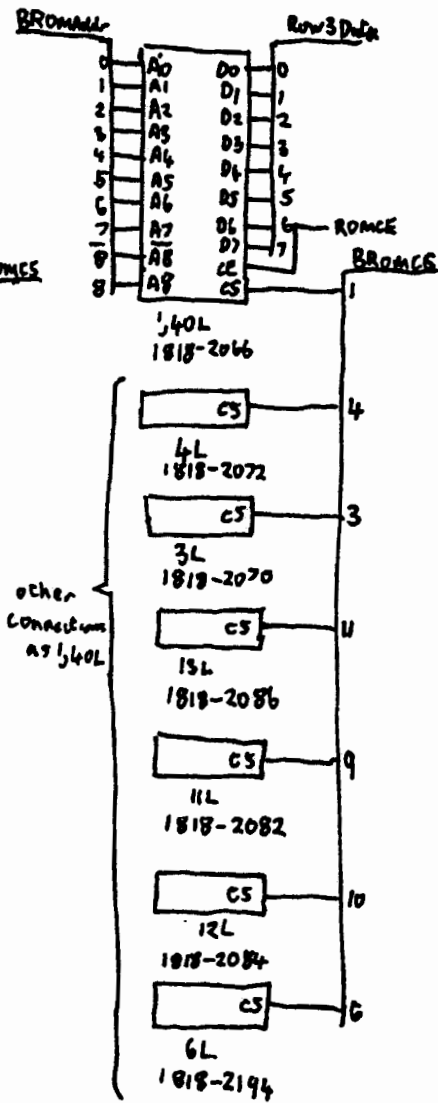
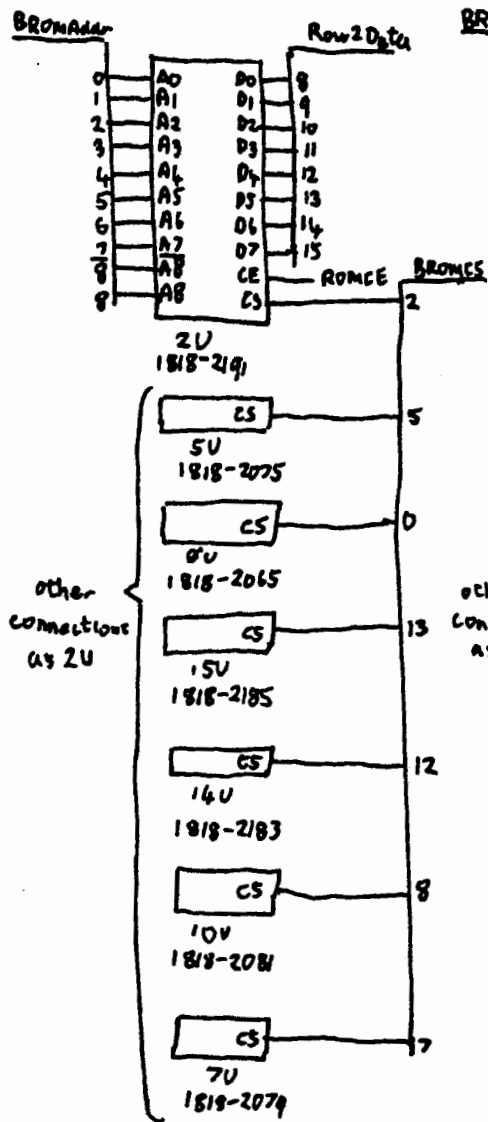
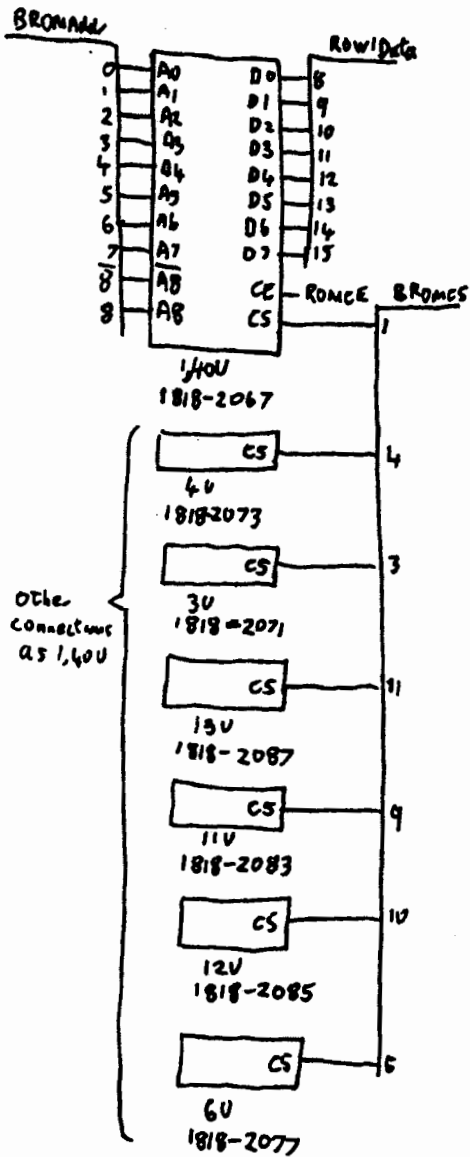




HP9810 Data Path, Sheet (4) (R/Y) 09810-66514

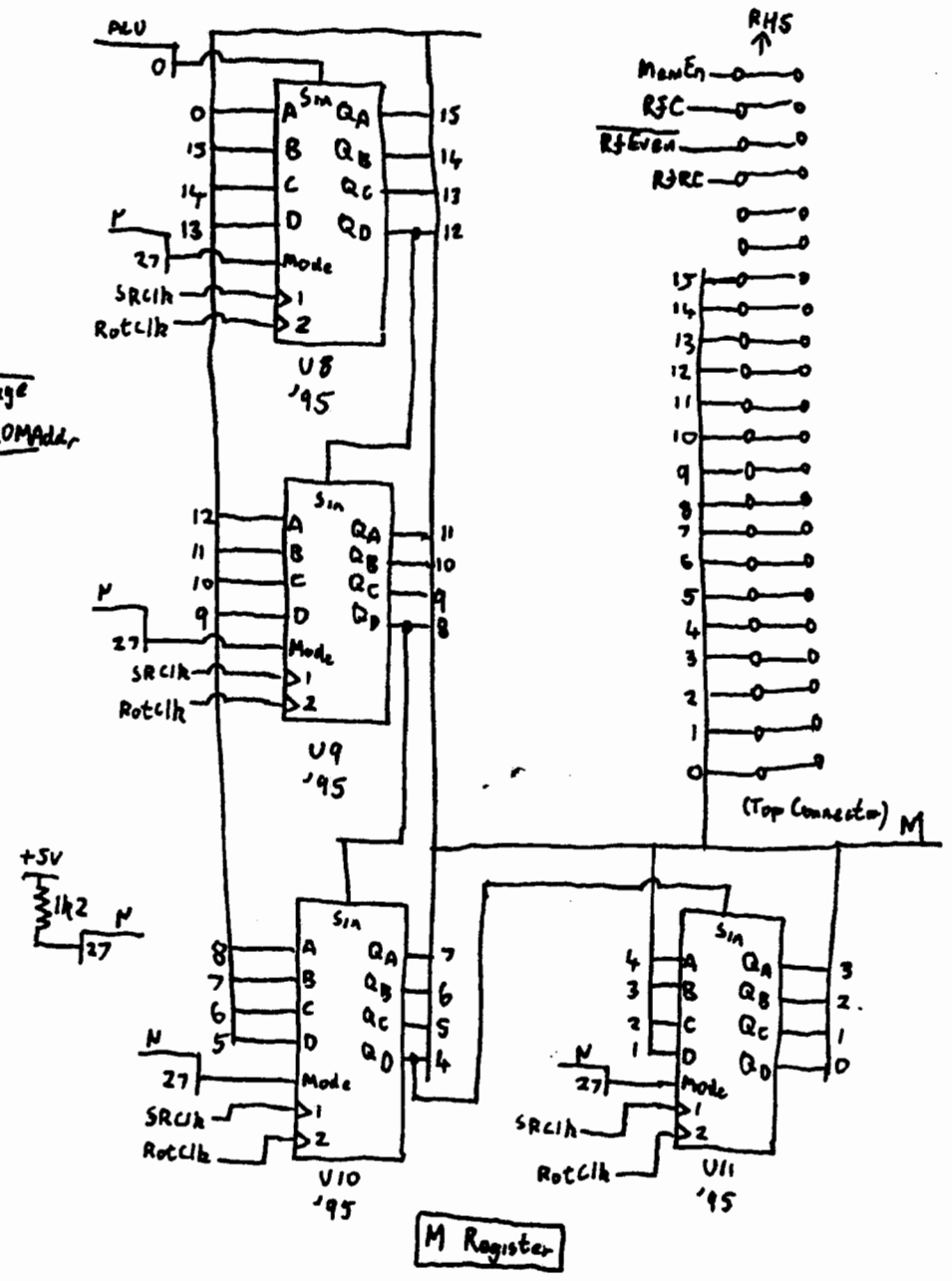
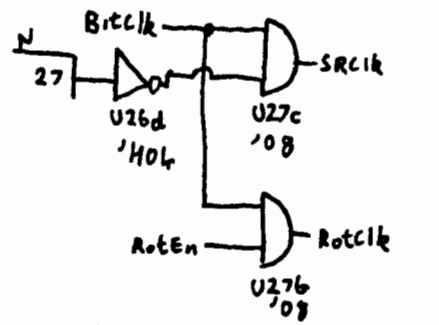
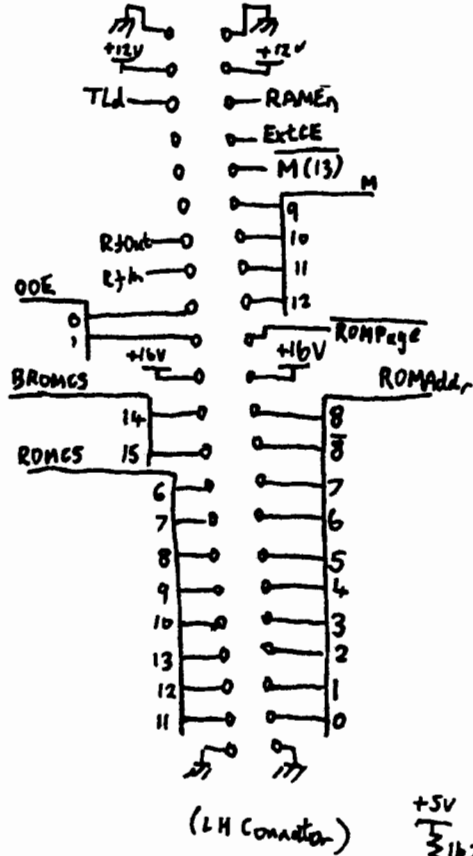
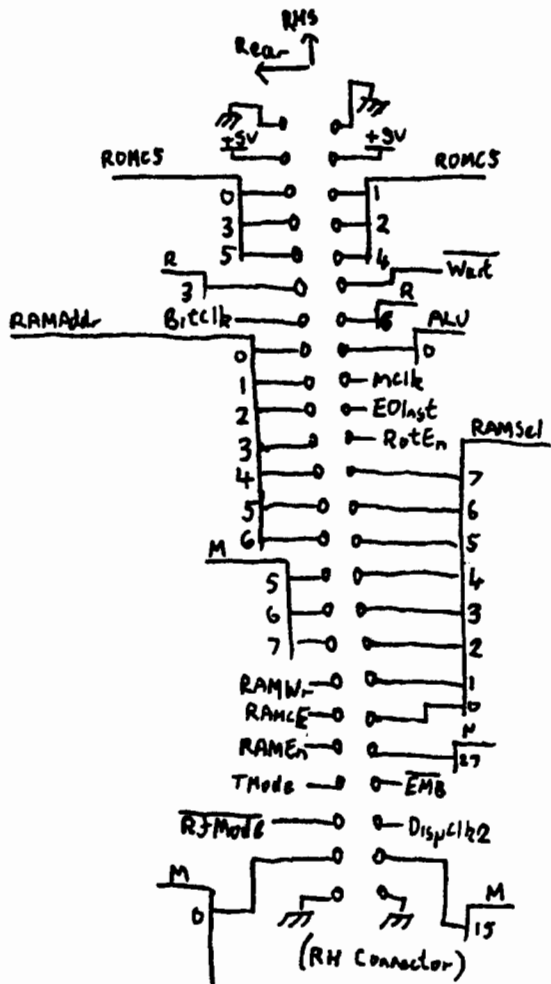


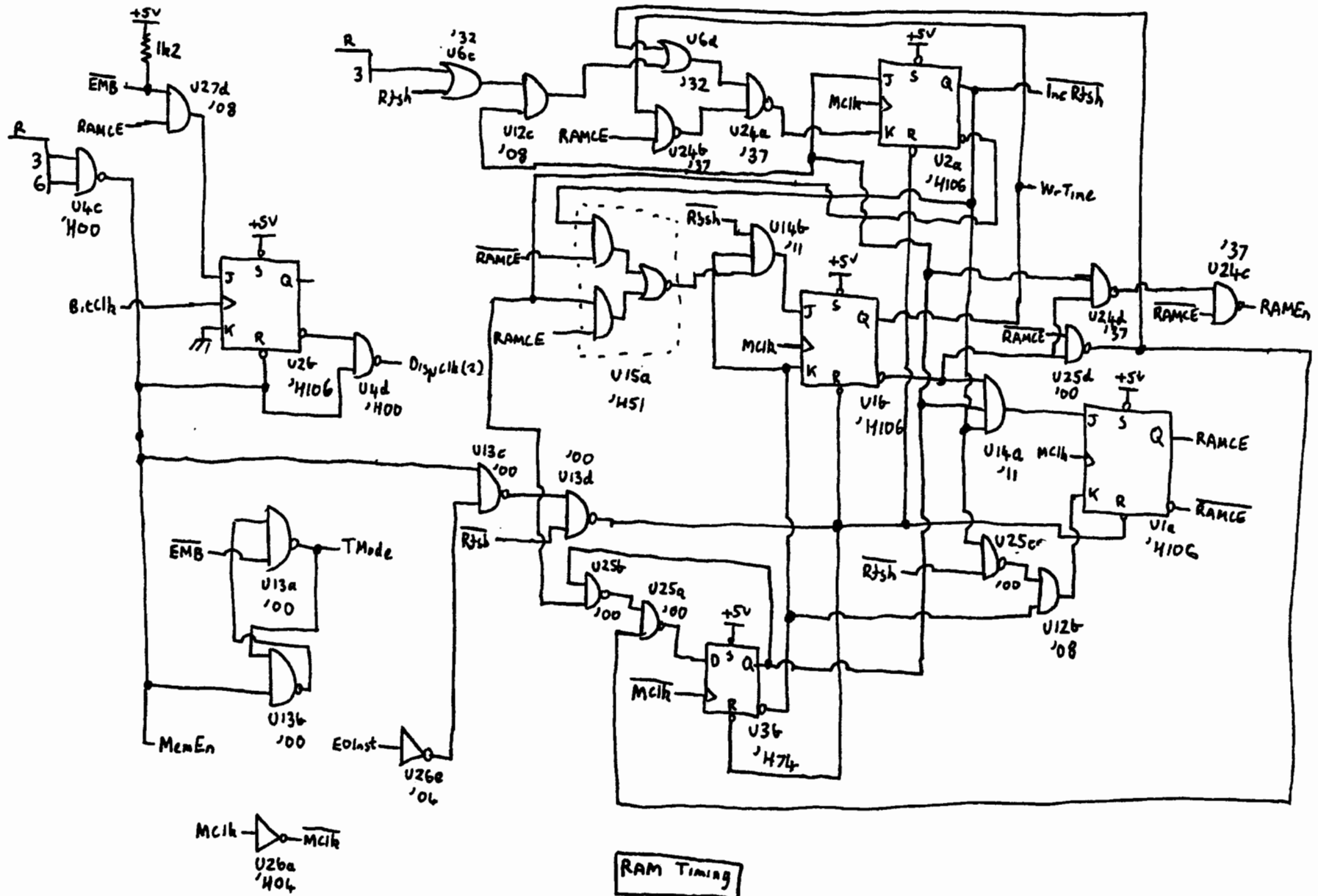


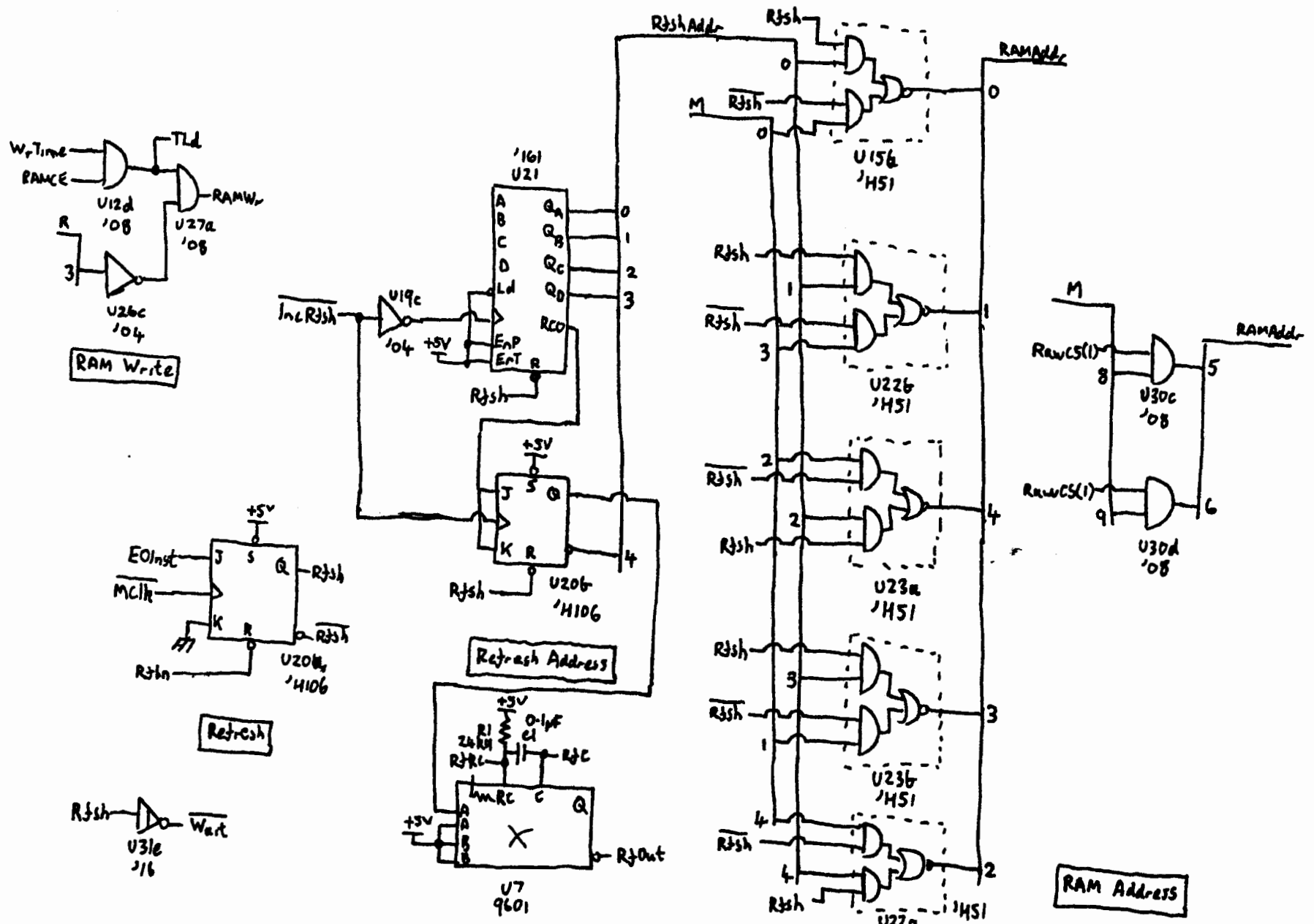


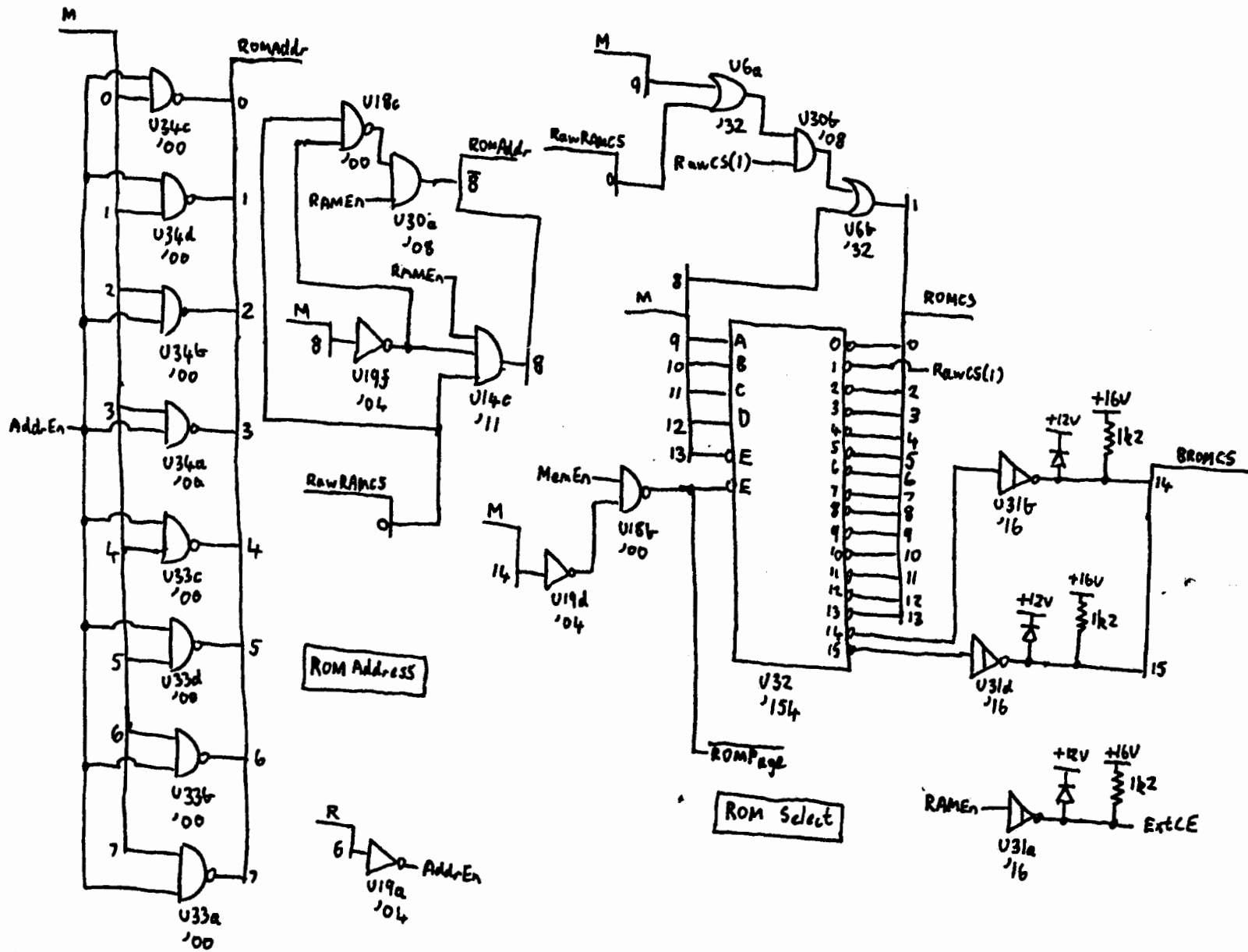
ROM

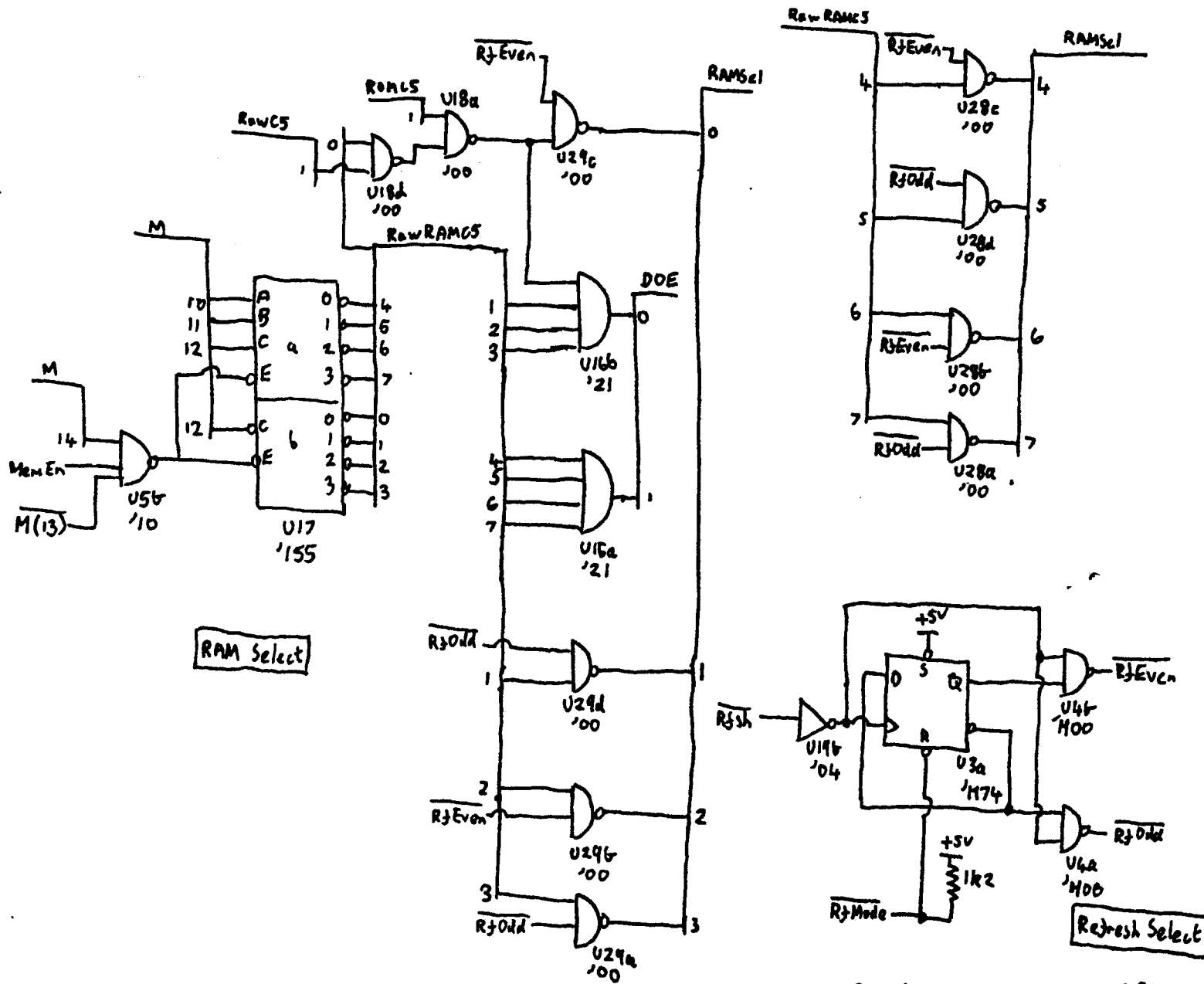
41

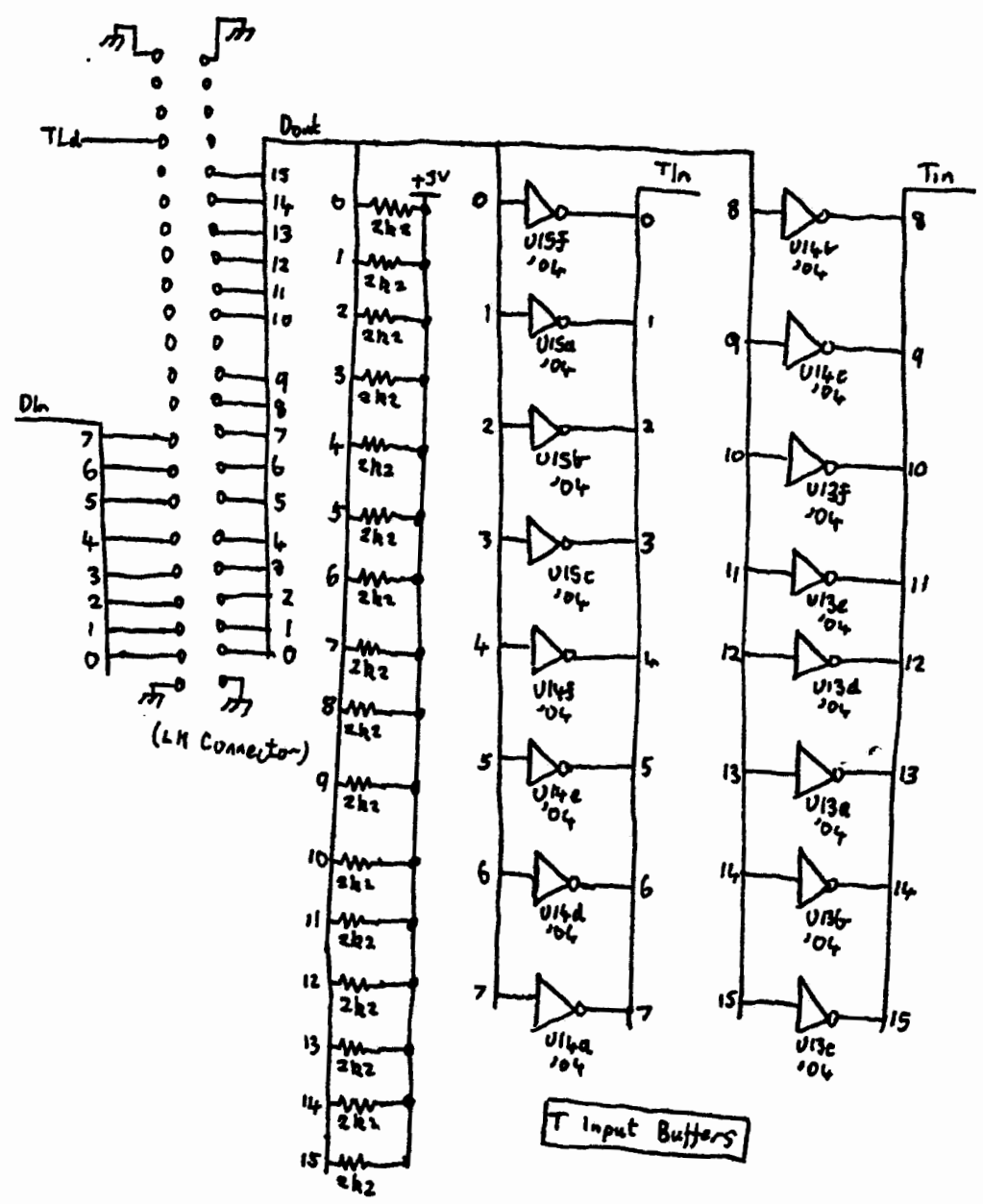
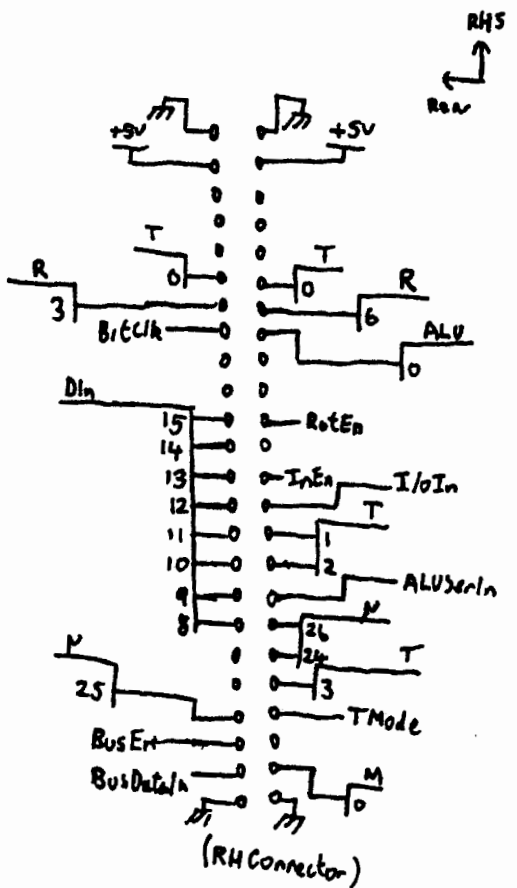


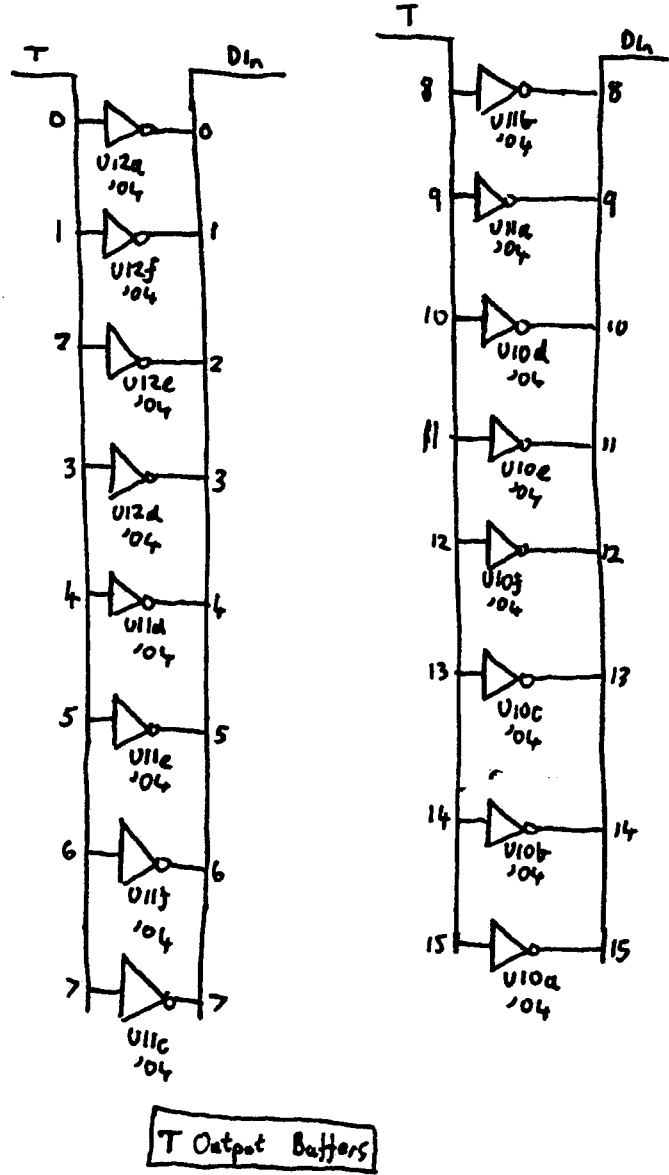
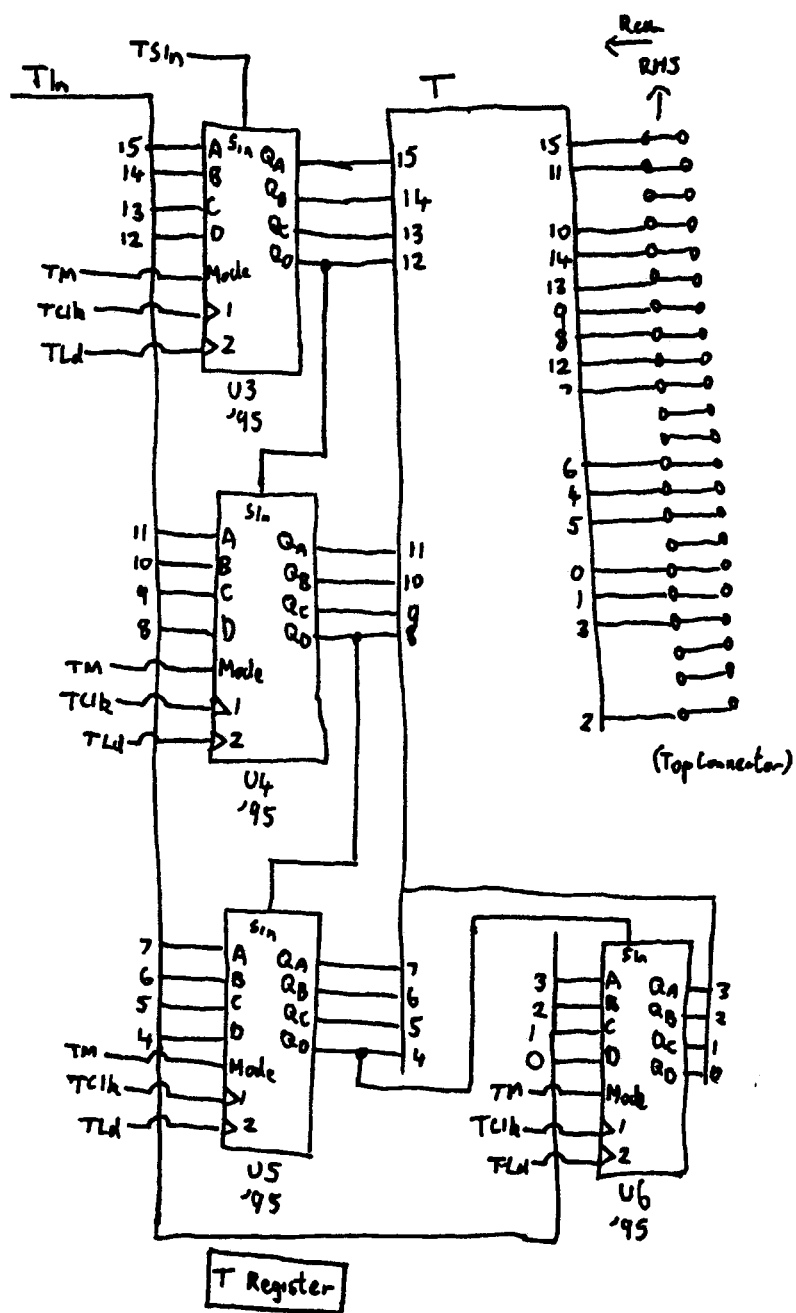


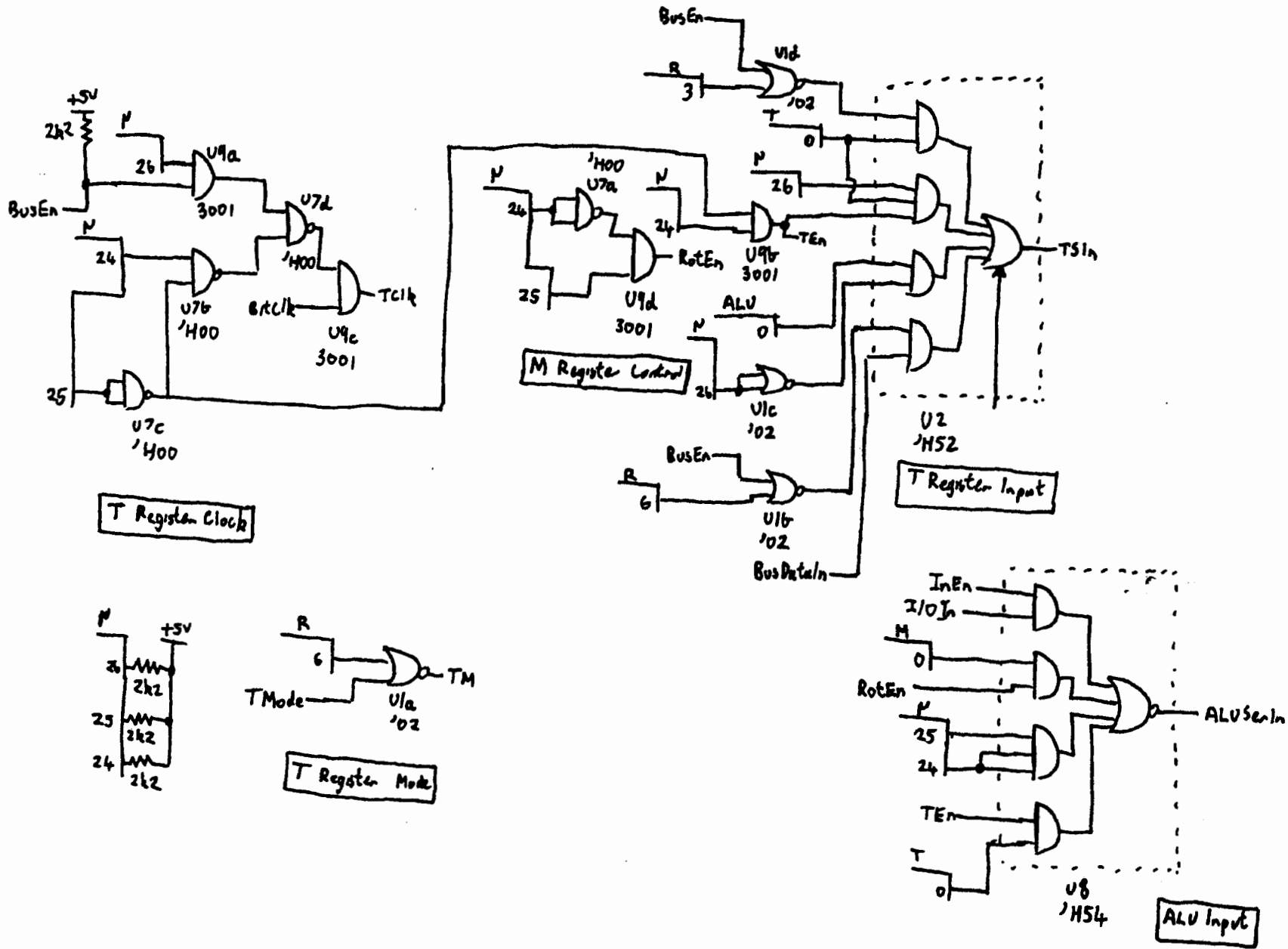




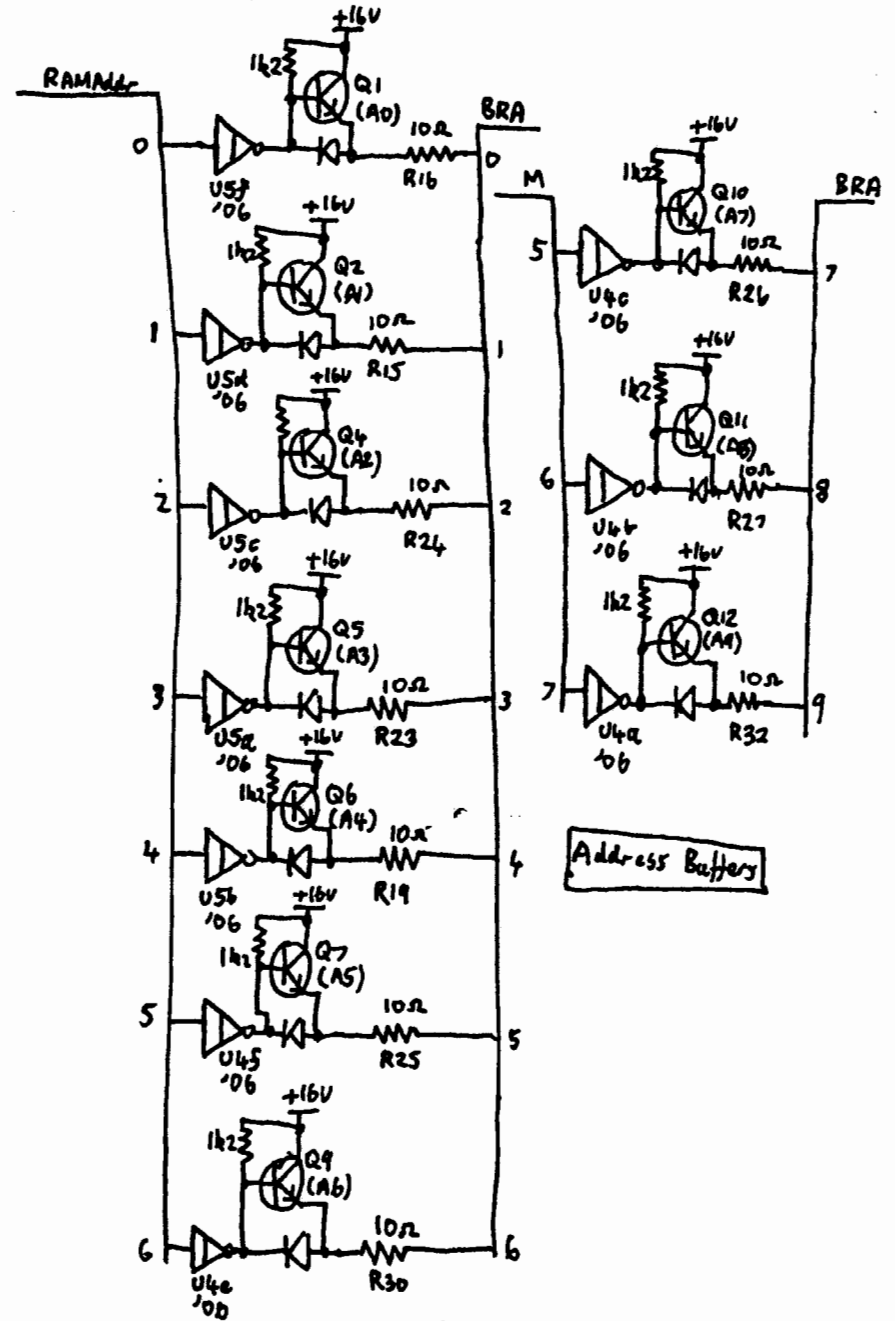
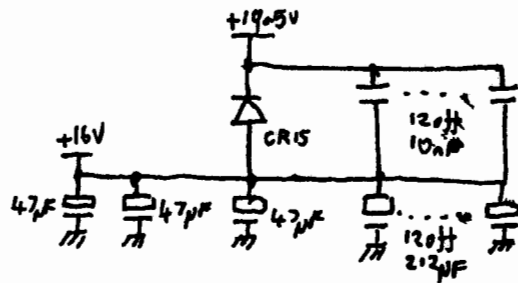
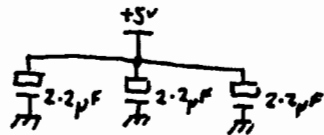
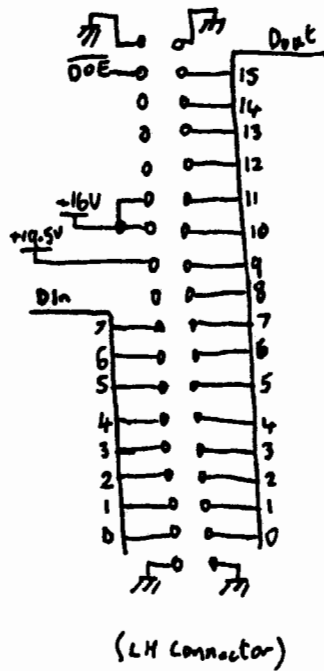
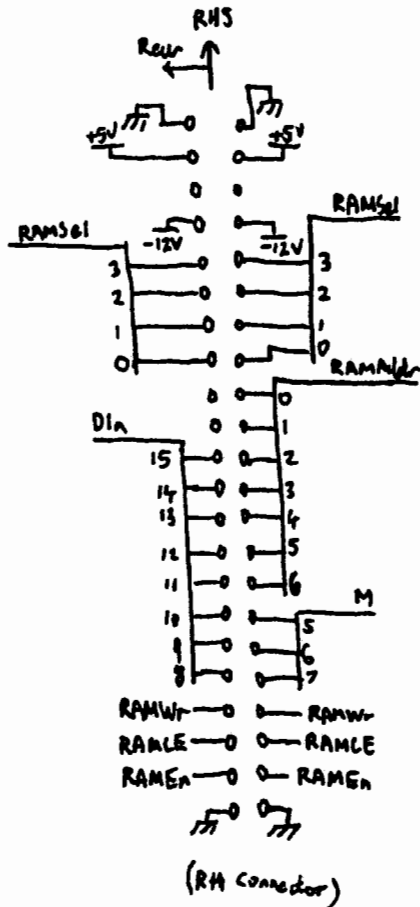


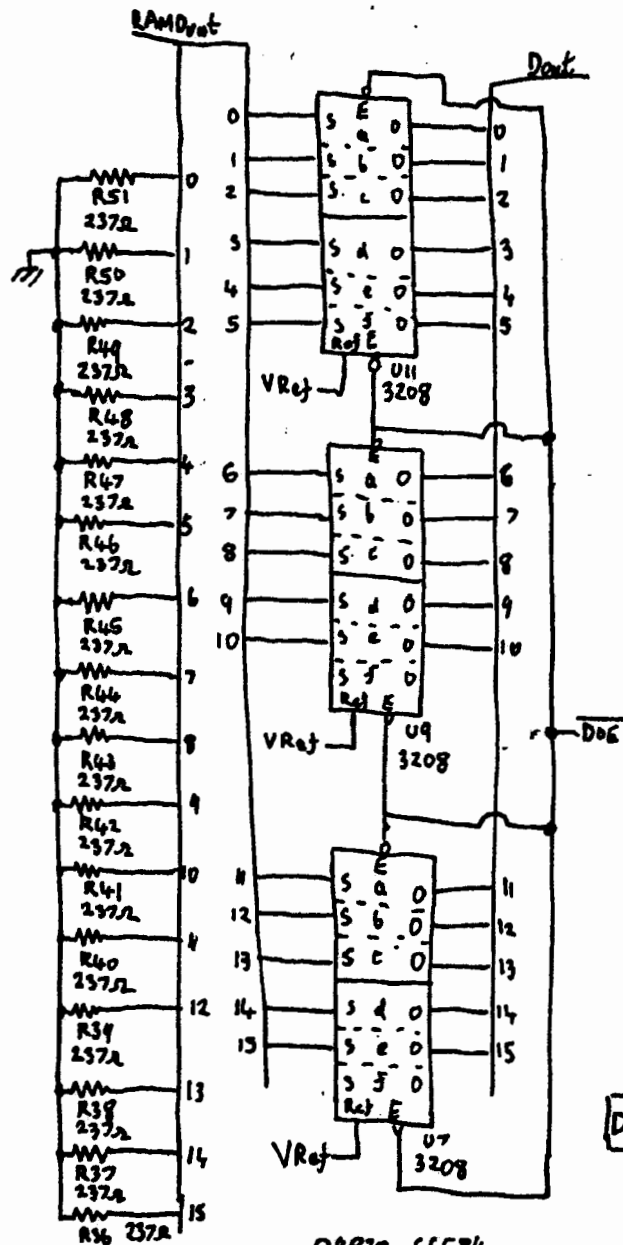
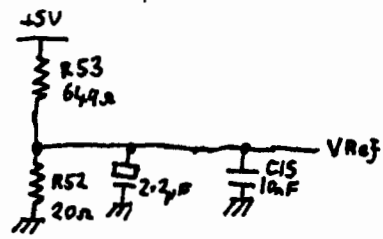
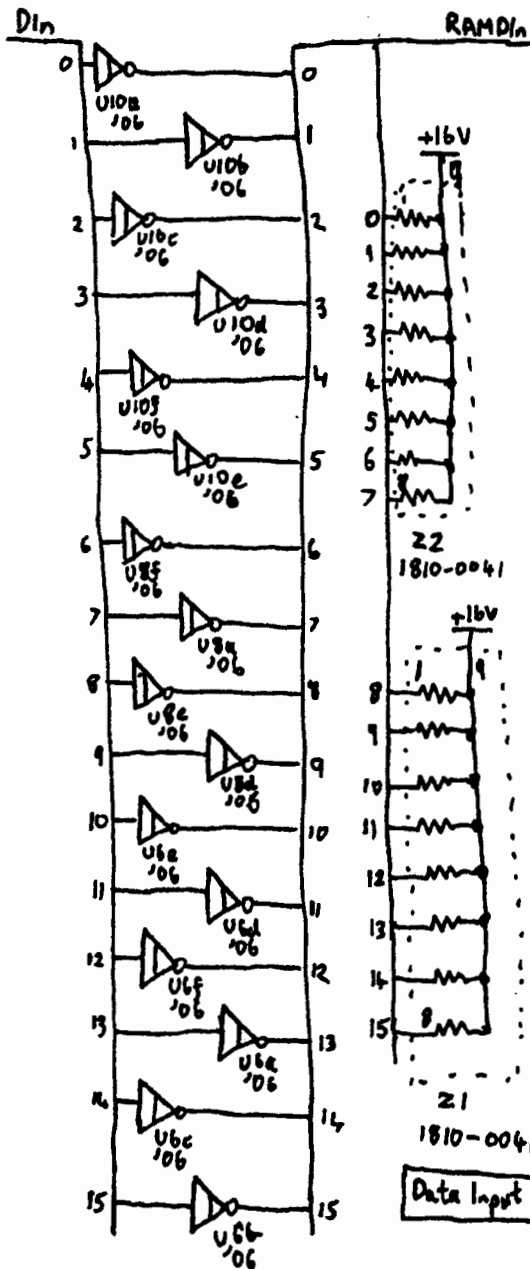


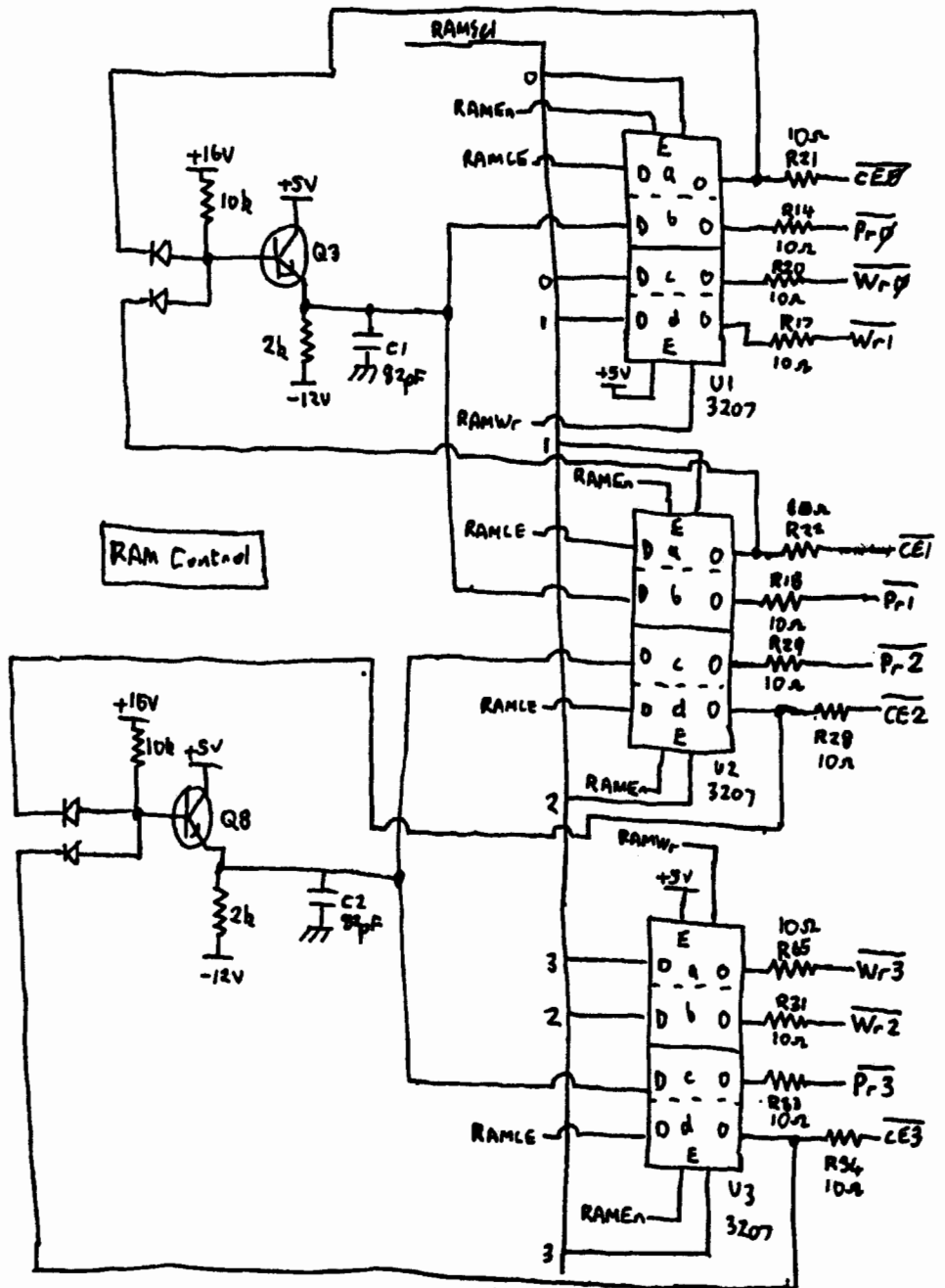




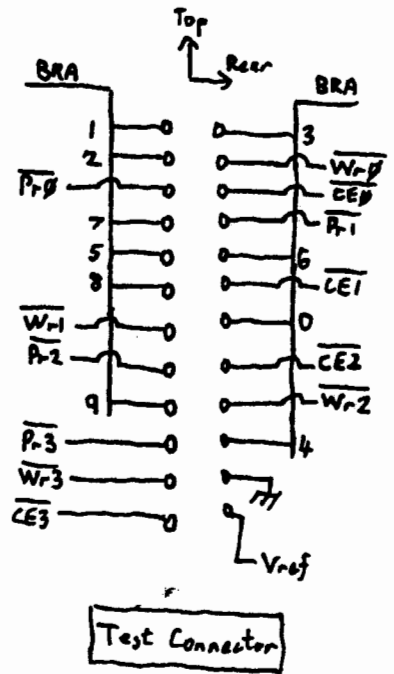
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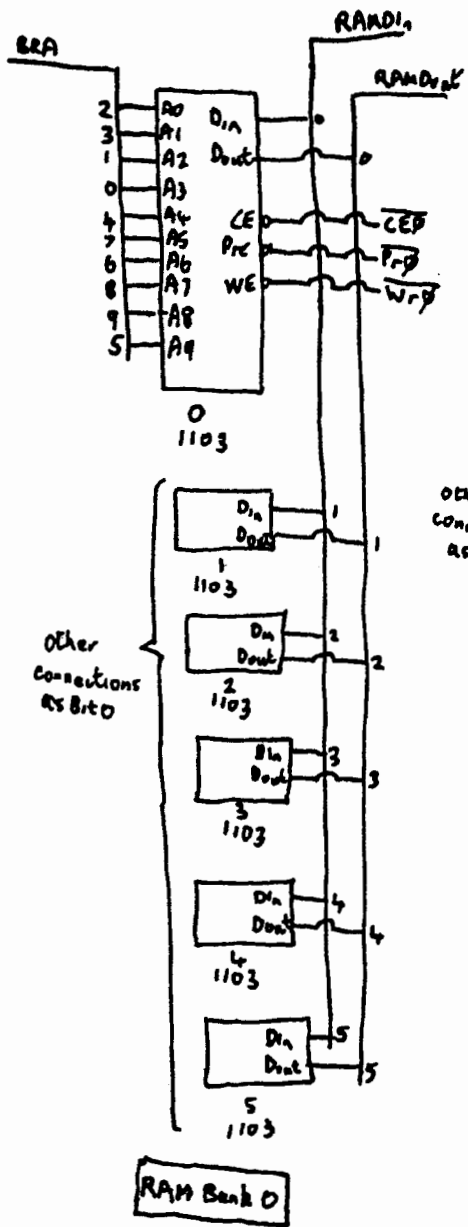




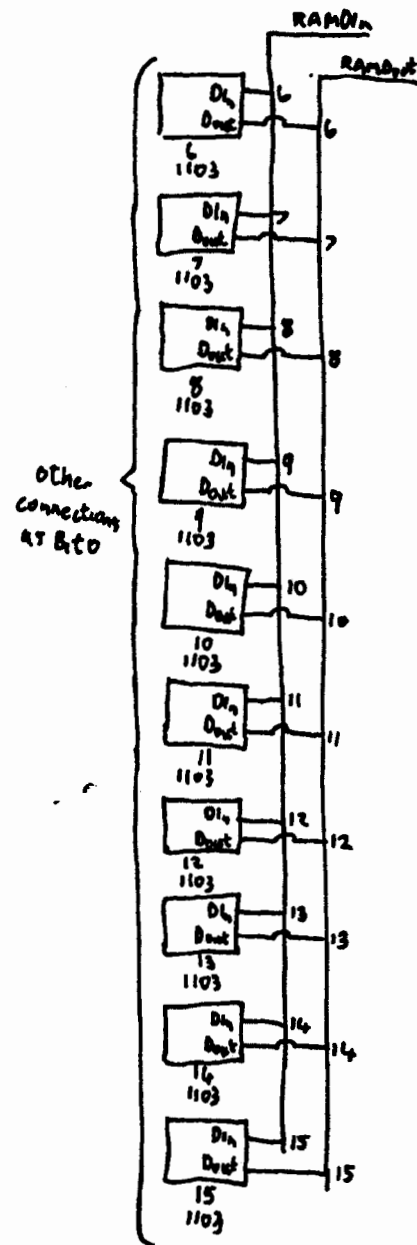
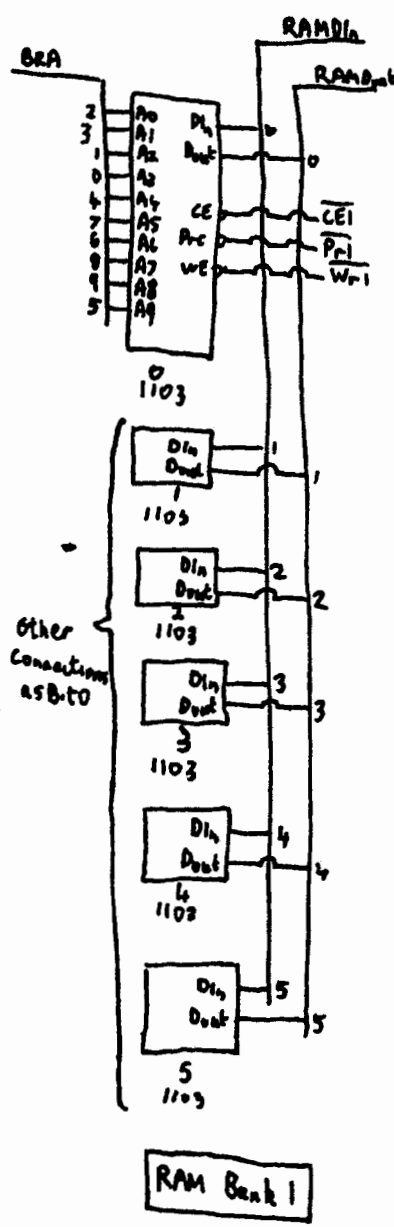
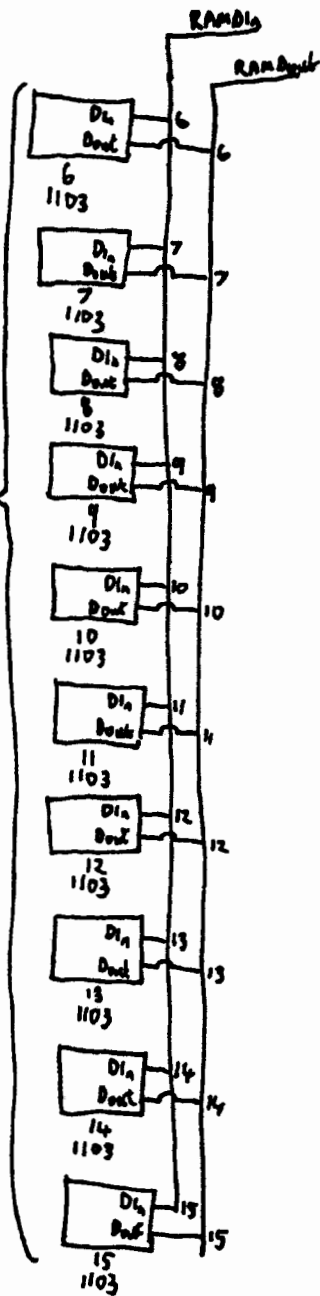
RAM Control

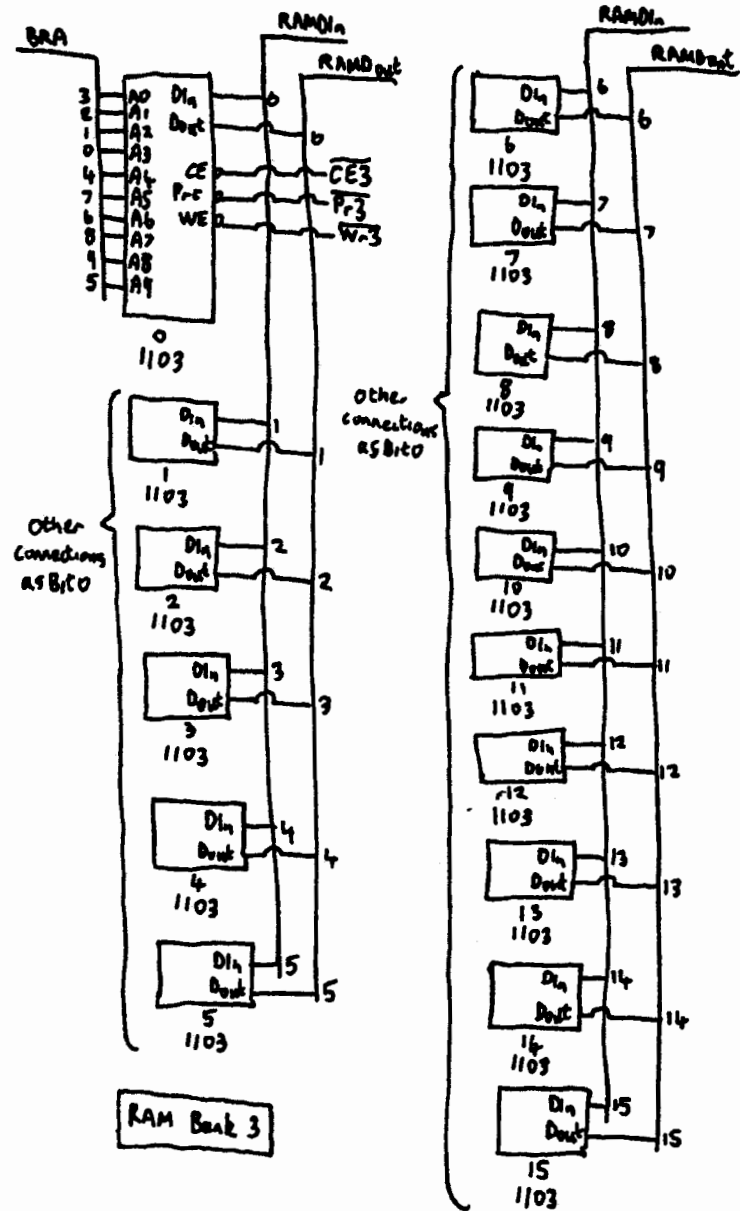
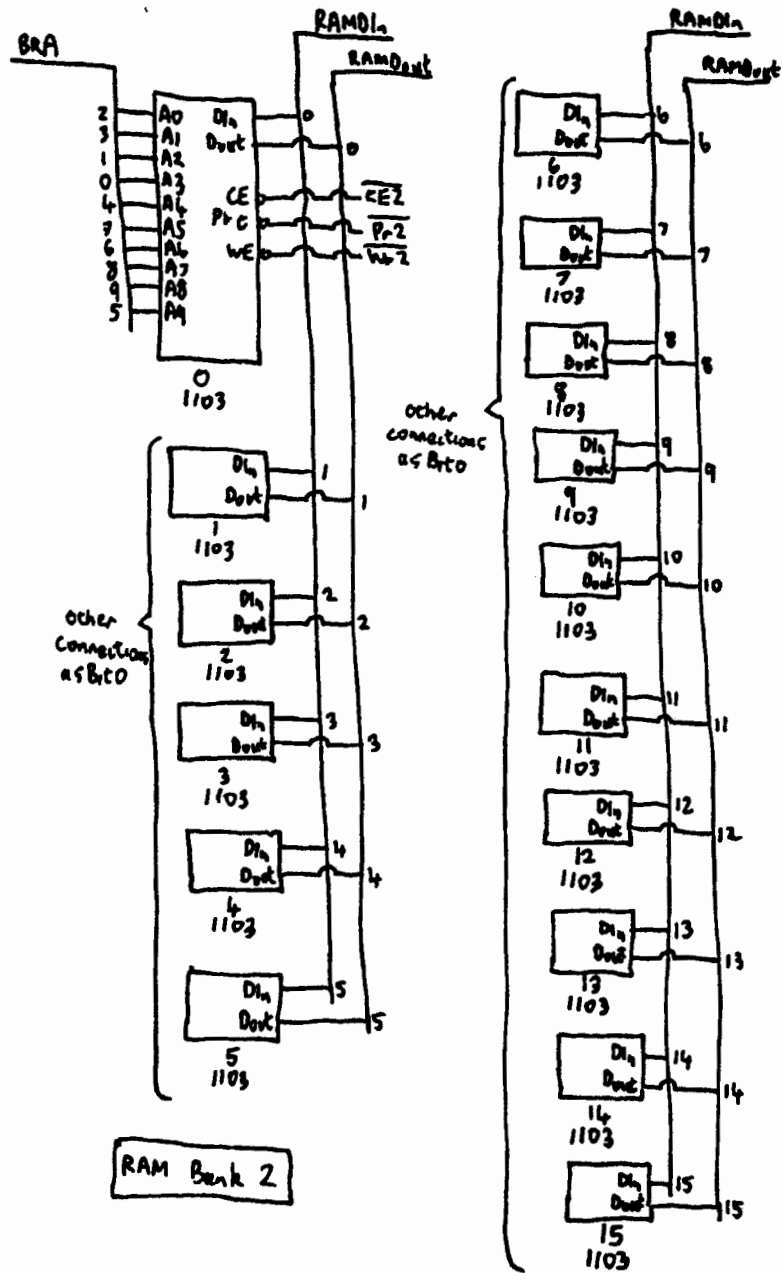


Test Connector

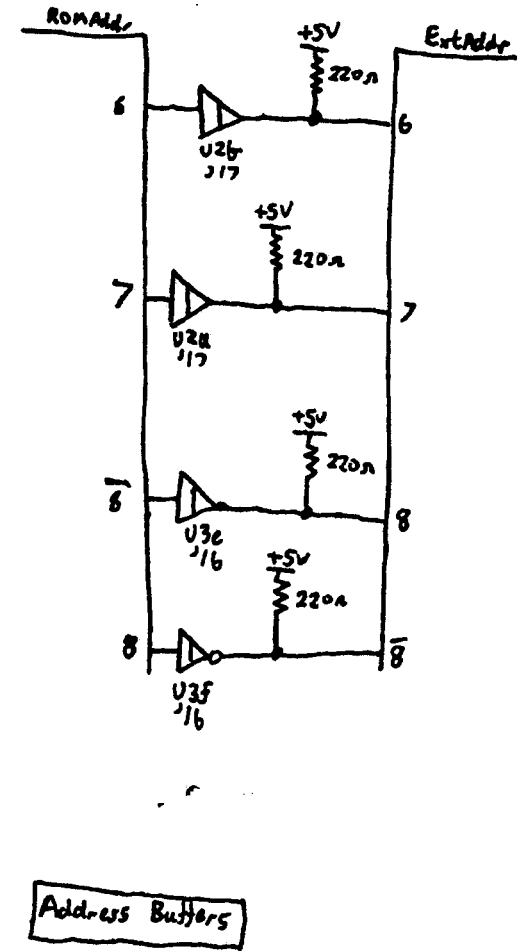
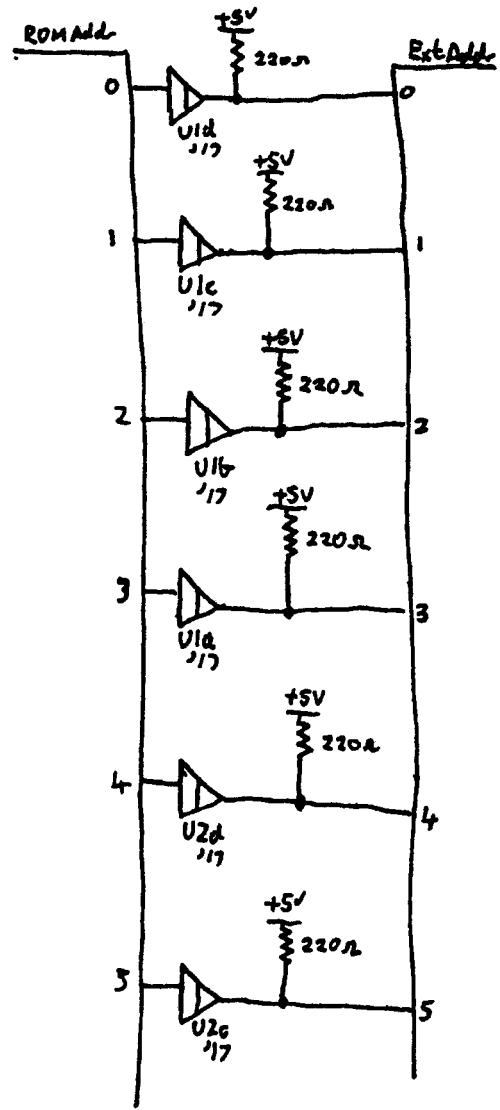
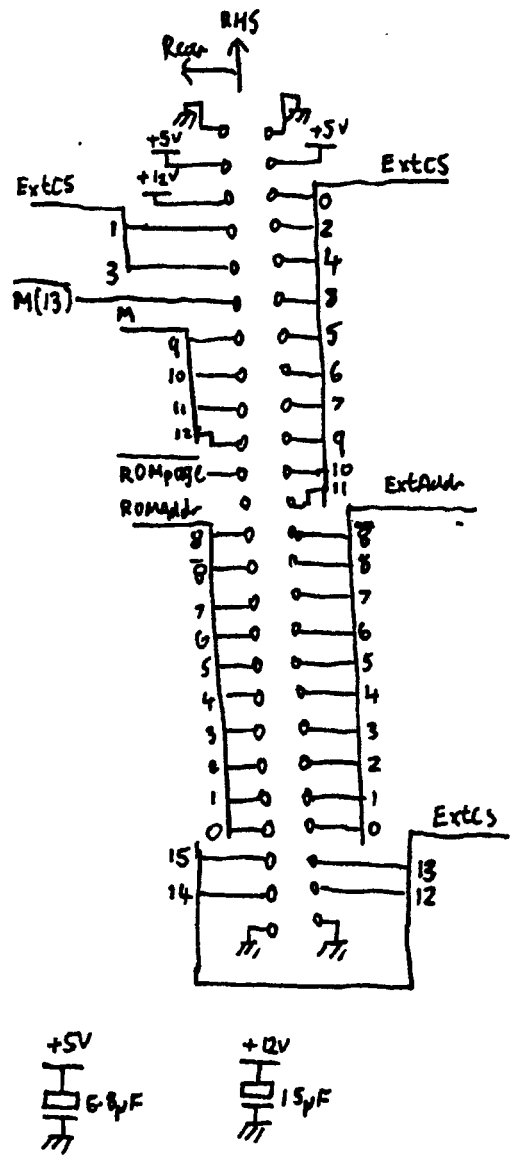


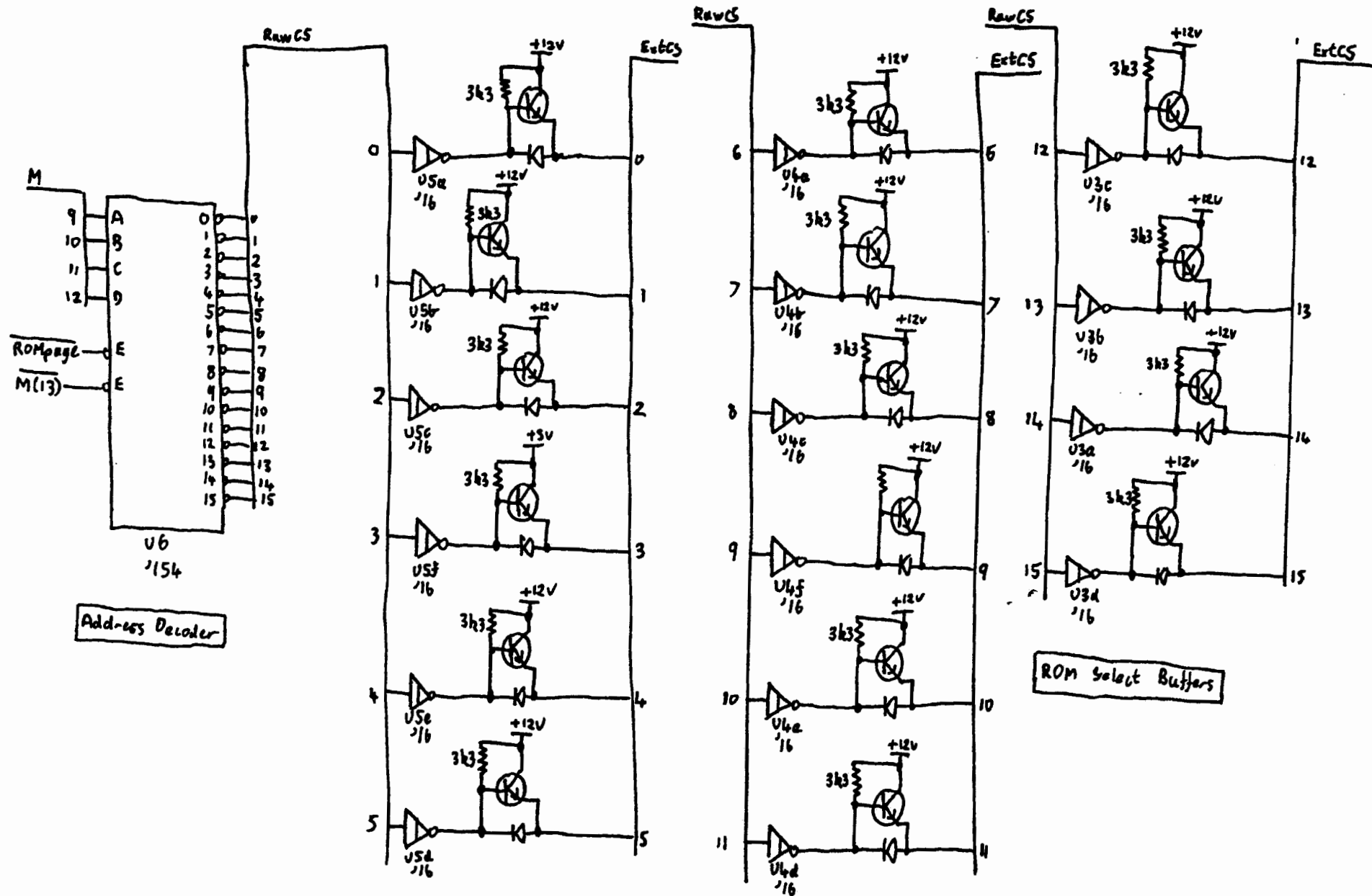
Note: Bank 0 towards top of PCB



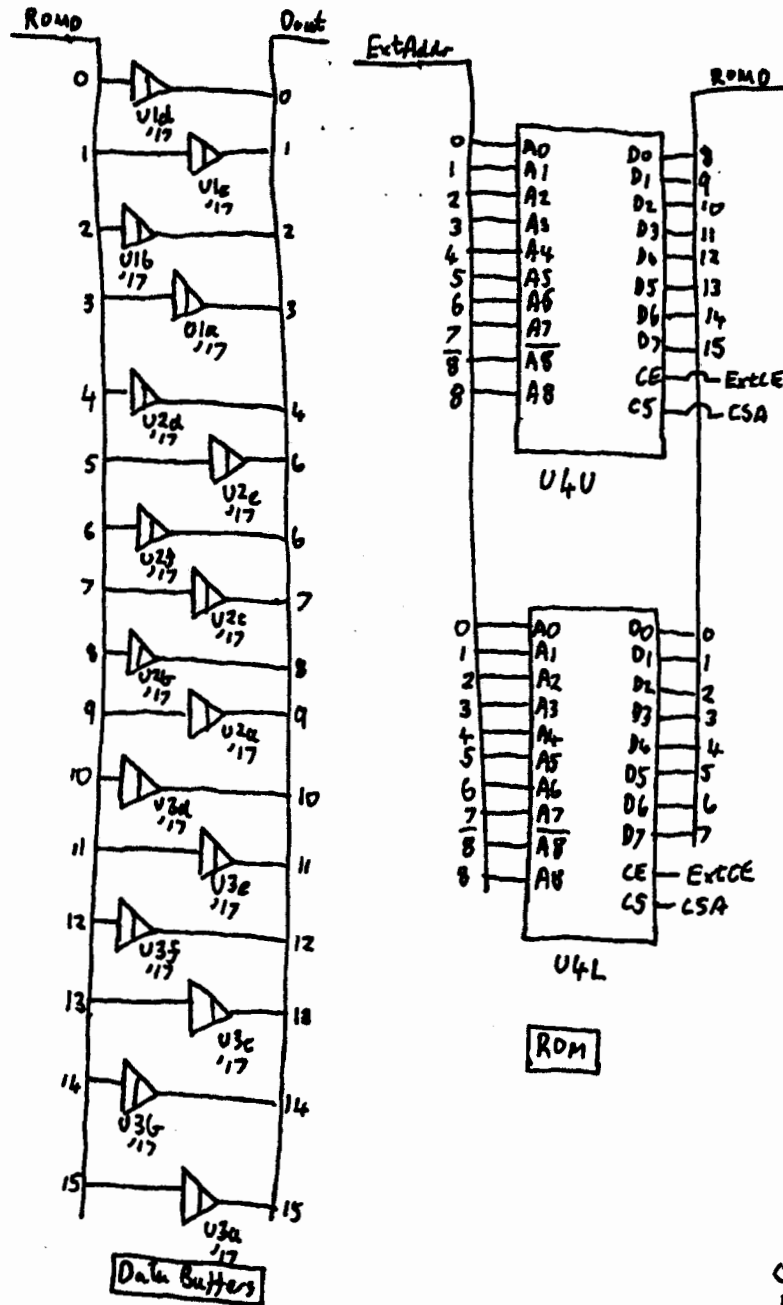
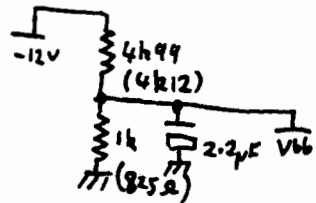
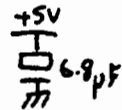
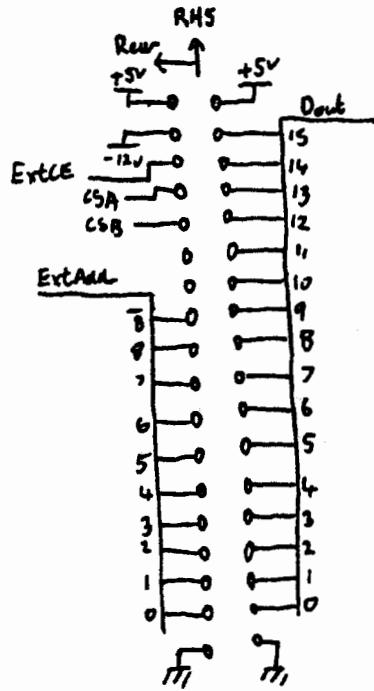


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	09830-66526	11270-66520	11271-66520
U4U	1818-2107	1818-2109	1818-2117
U4L	1818-2106	1818-2108	1818-2116
USU	—	1818-2111	1818-2119
USL	—	1818-2110	1818-2118

HP4830 Internal Ext ROM PCB

09830-66526 (R/Bu)
 11270-66520 } (R/Bk)
 11271-66521

f0	f1	f2	f3	f4
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Normal	Trace	Ptr All	Cont	Step
--------	-------	---------	------	------

↓	↑
---	---

Auto R	List	Load	Store	Reset
--------	------	------	-------	-------

f5	f6	f7	f8	f9
----	----	----	----	----

Back	Forward	Insert	Recall	Fetch
------	---------	--------	--------	-------

←	→
---	---

Fixed N	Float N	Std	Scratch	Init
---------	---------	-----	---------	------

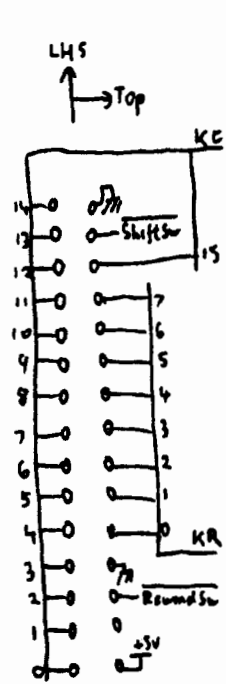
!	"	#	\$	%	&	'	(	)	-	RUN	STOP
1	2	3	4	5	6	7	8	9	0		
Delete Line	Q	W	E	R	T	Y	V	I	O	P	End of Line
End	A	S	D	F	G	H	J	K	L	;	:
Shift	Z	X	C	V	B	N	M	<	>	?	Shift
Space Bar											

Clear
=
Result
Recall

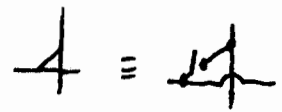
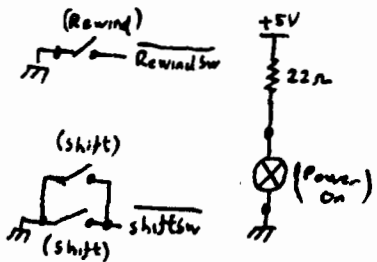
(	)	Enter
7	8	9
4	5	6
1	2	3
0	.	/

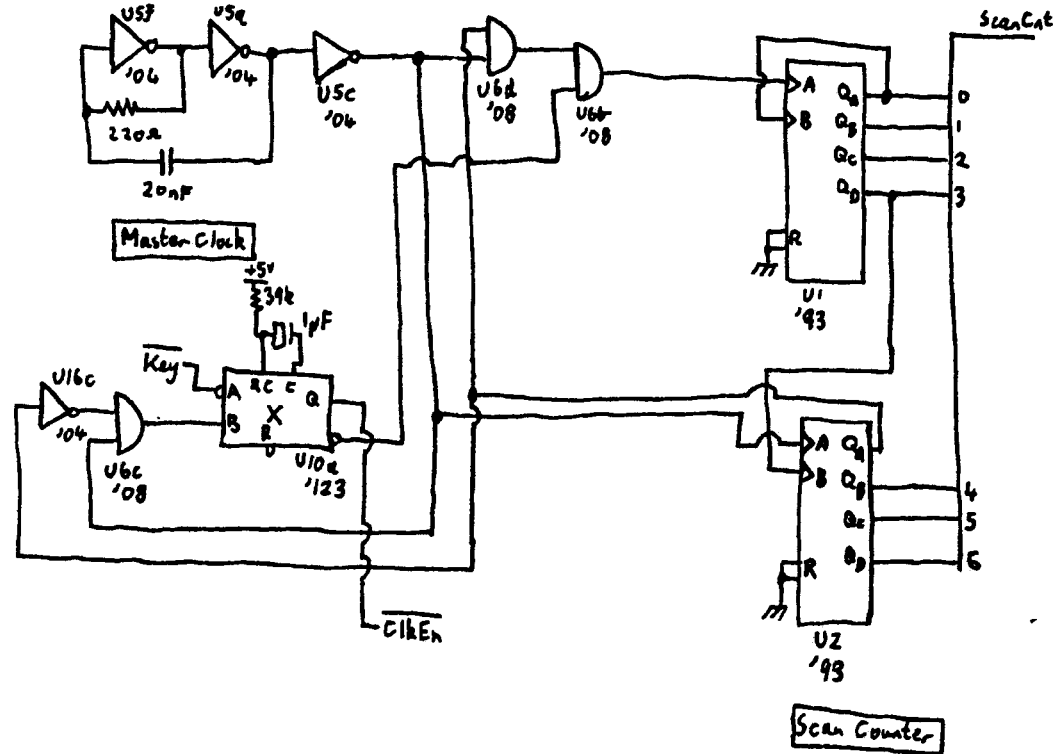
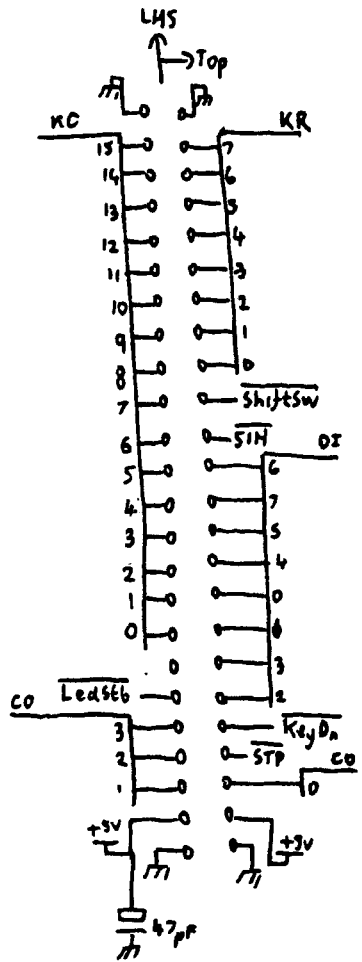
↑
/
*
-
+

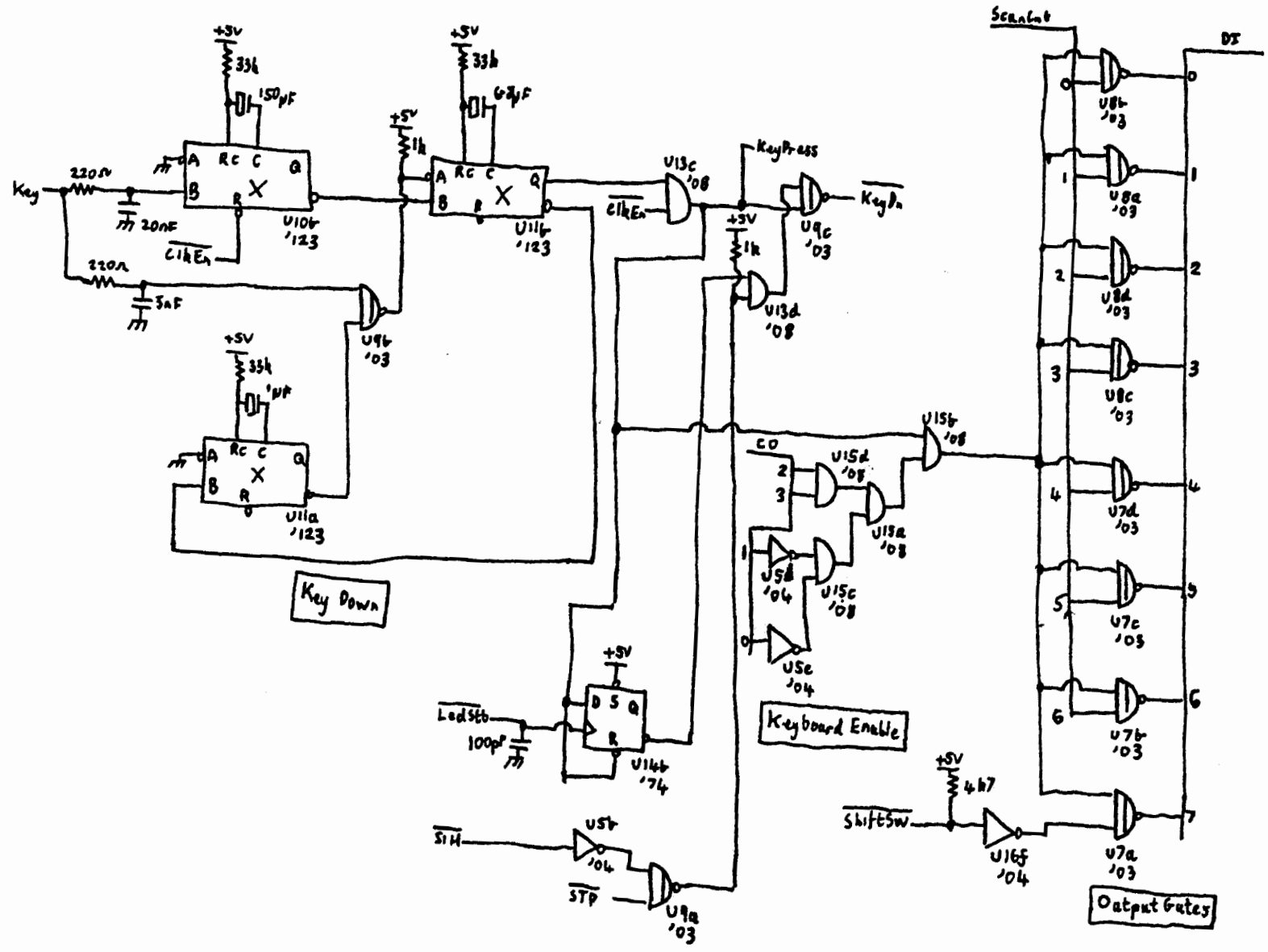
HP 9830 Keycaps

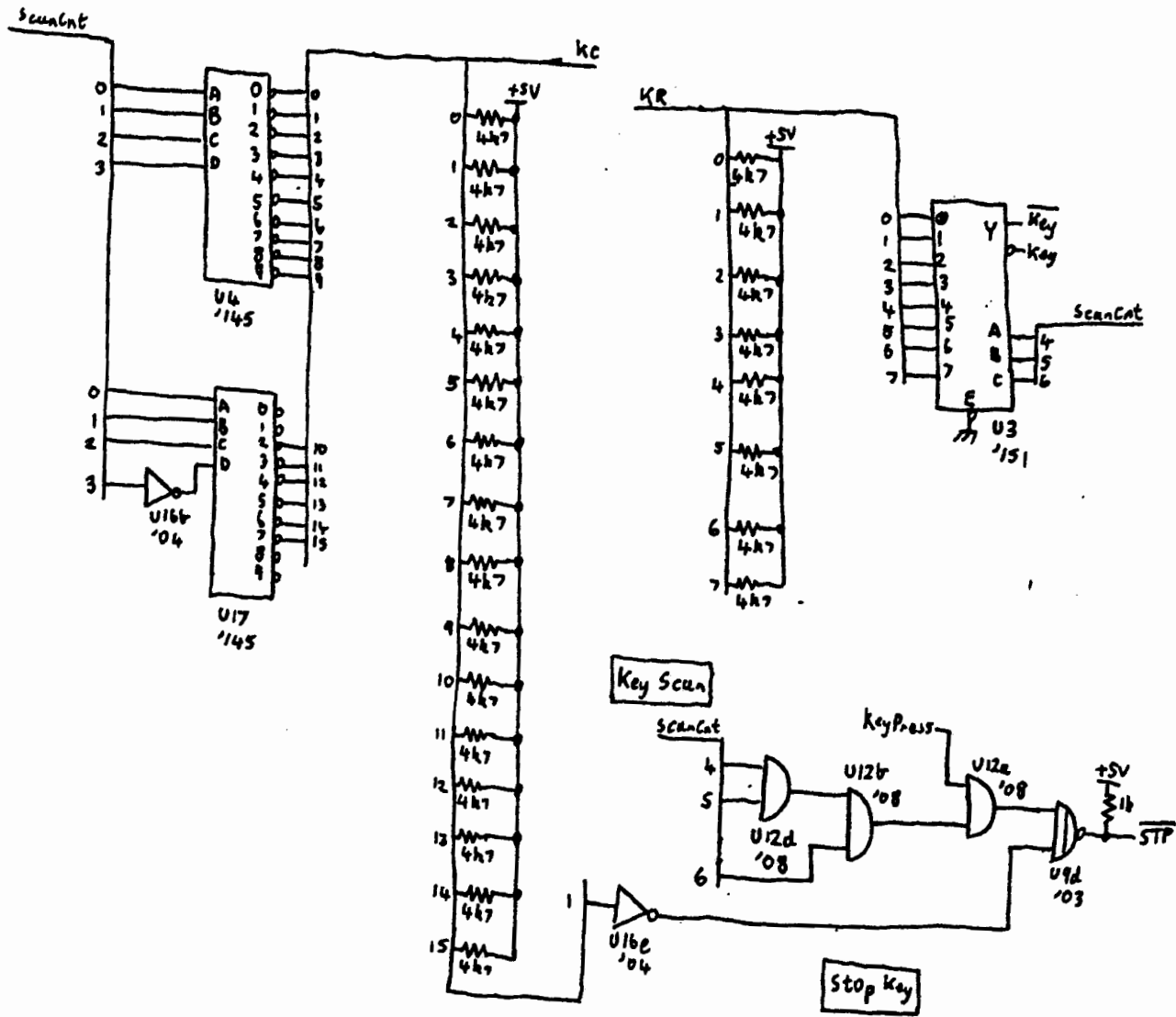


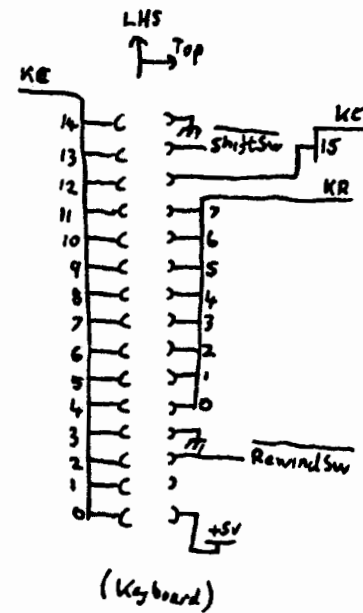
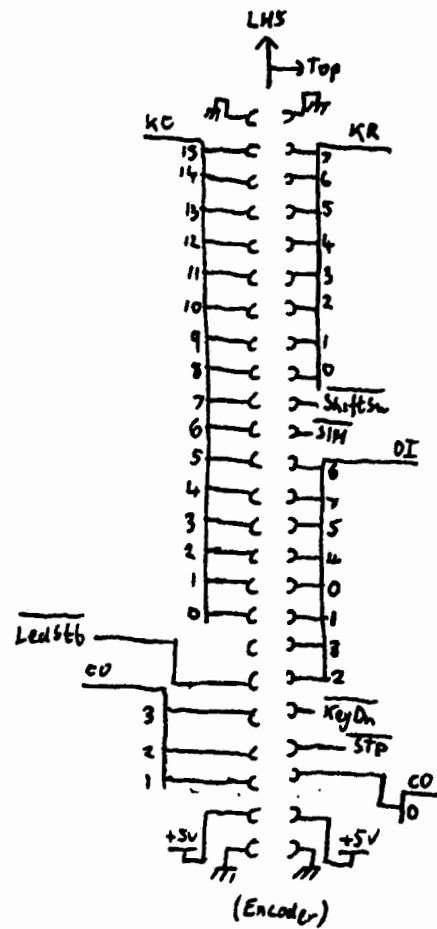
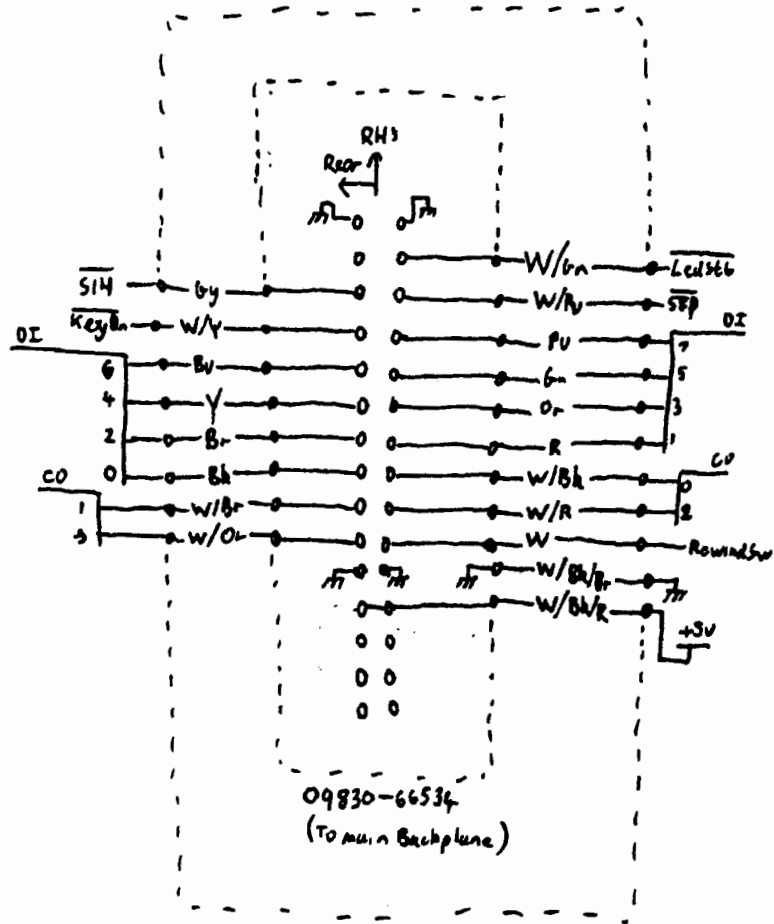
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
KC																
KR	to	31	32	33	34	35	36	37	38	39	List	Exec	Cont	stop	Trace	Run
0	Recall	Fetch	Back	Forward	↓	↑	←	→	Load	store	Init	N/	End	Std	Normal	Insert
1	Space								N(	)	N*	N+	N,	N<	N>	N=
2	NO	0	N1!	N2"	N3#	N4\$	N5%	N6&	N7'	N8(	N9)	N*	N+	N,	N<	N>
3			A	B	C	D	E	F	G	H	I	J	K	L	M	N
4			P	Q	R	S	T	U	V	W	X	Y	Z			N↑
5											clear	Result				Enter
6	PrtAll	stop	End of Line	Delete Line	FixedN	FloatN	Screen	AutoH								
7																





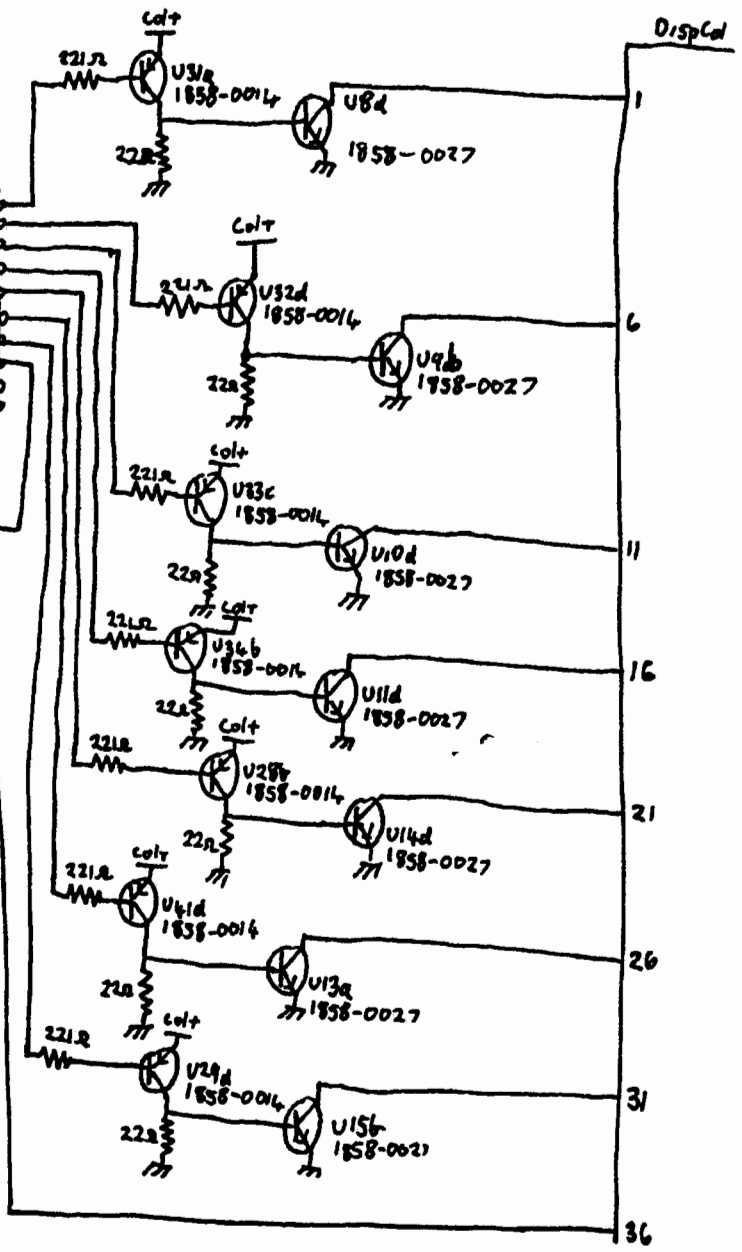
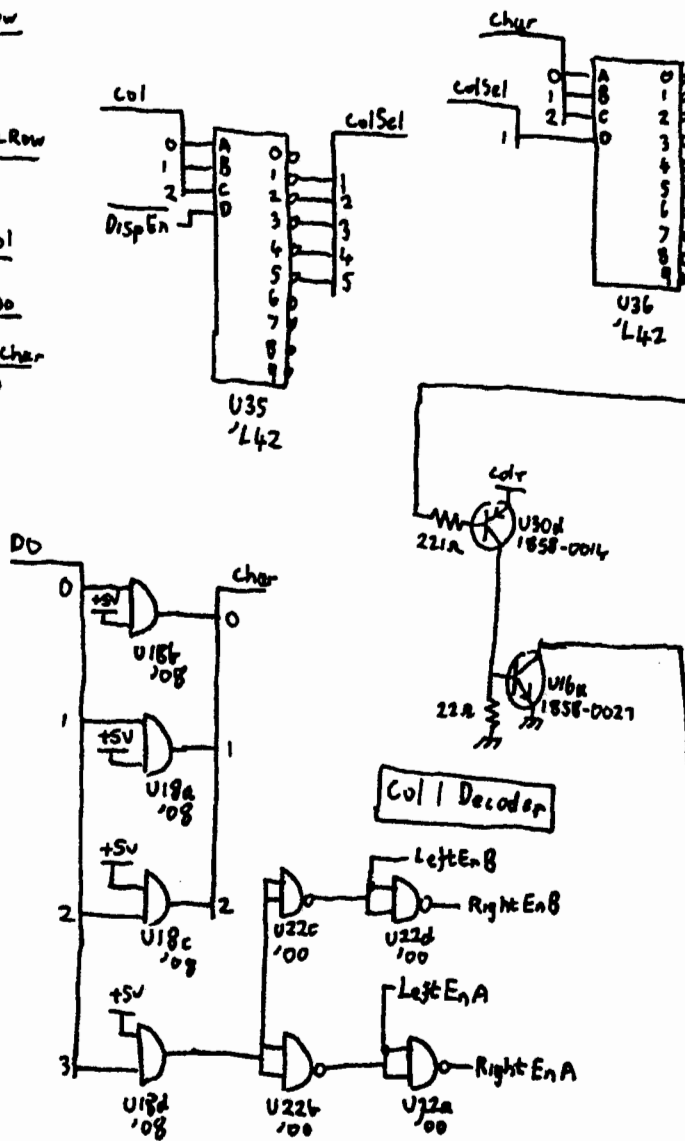
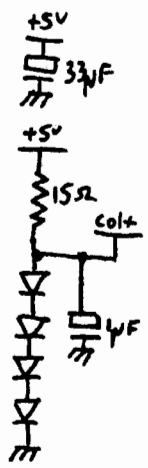
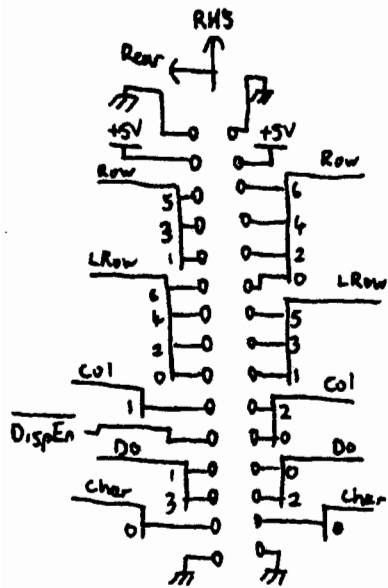


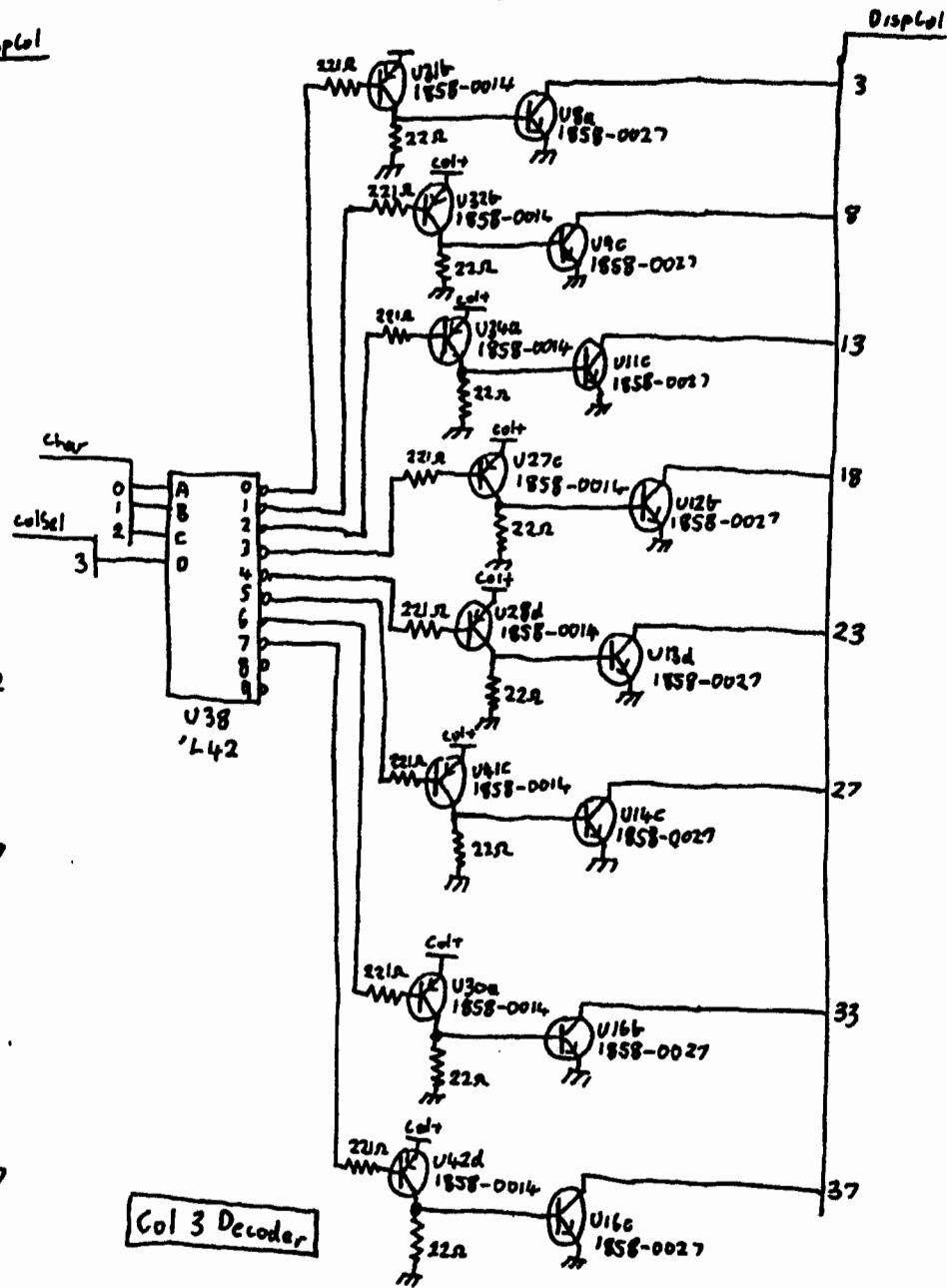
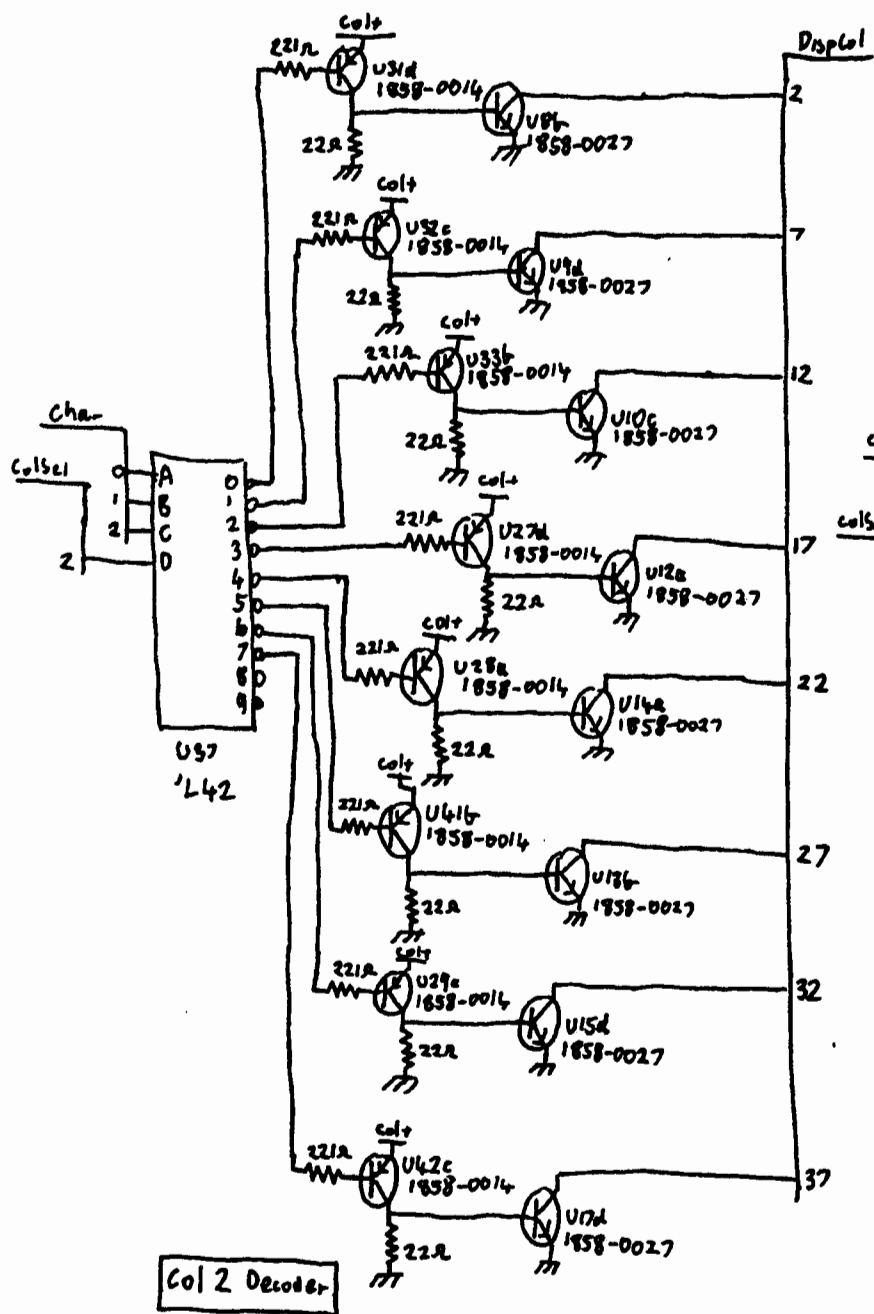


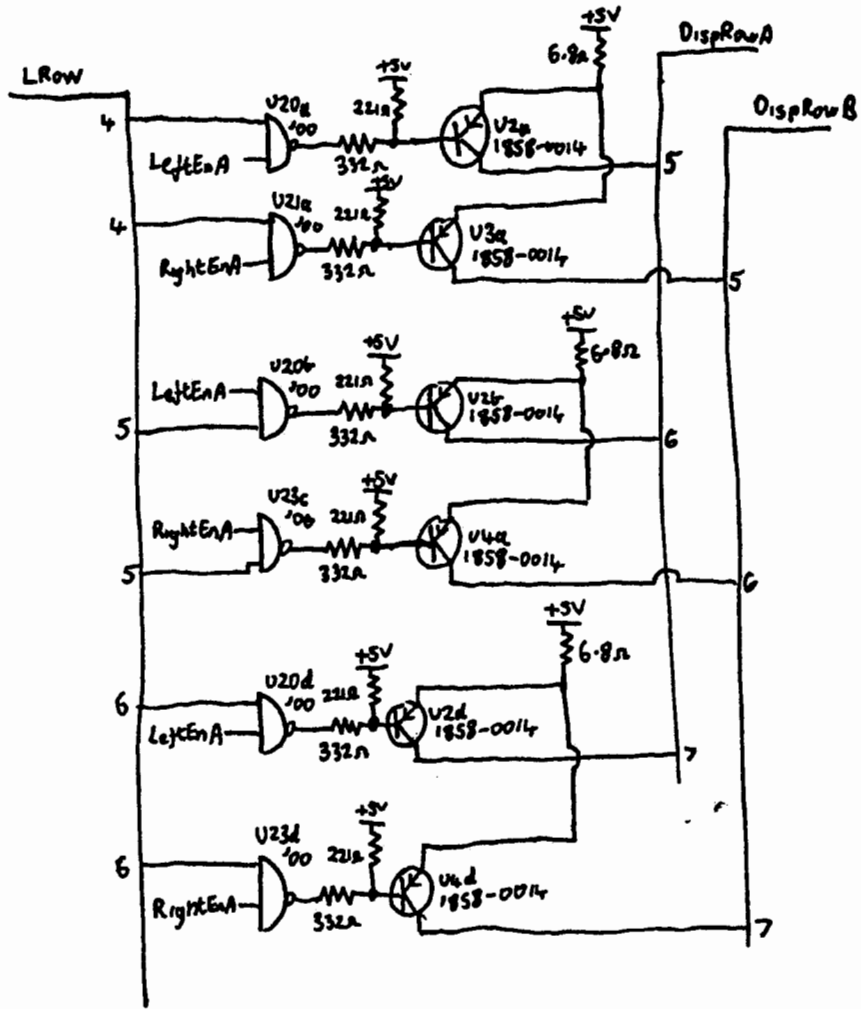
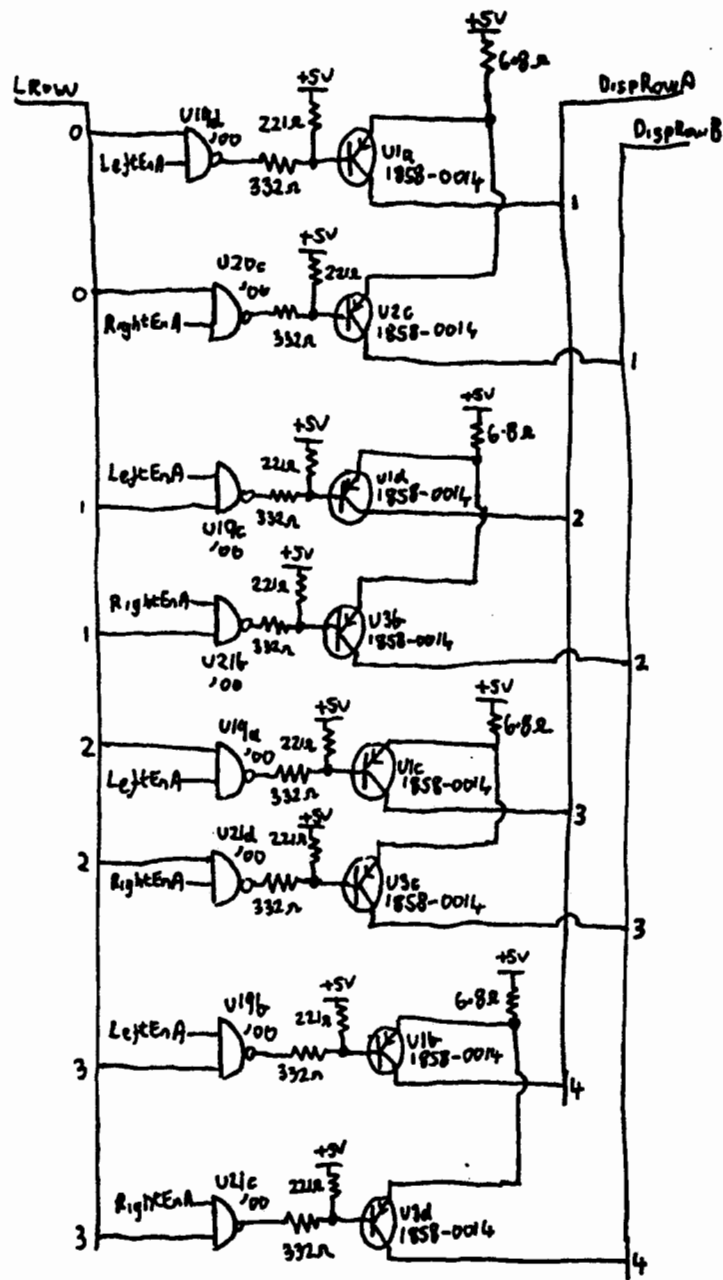


09830-66533

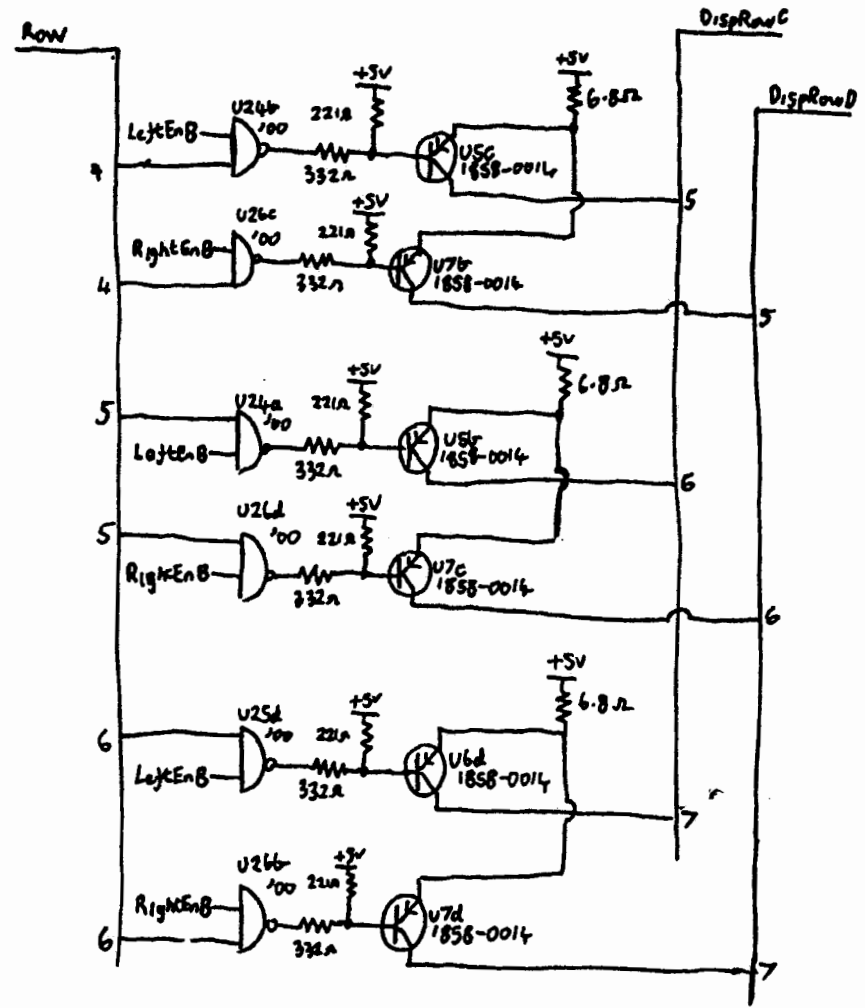
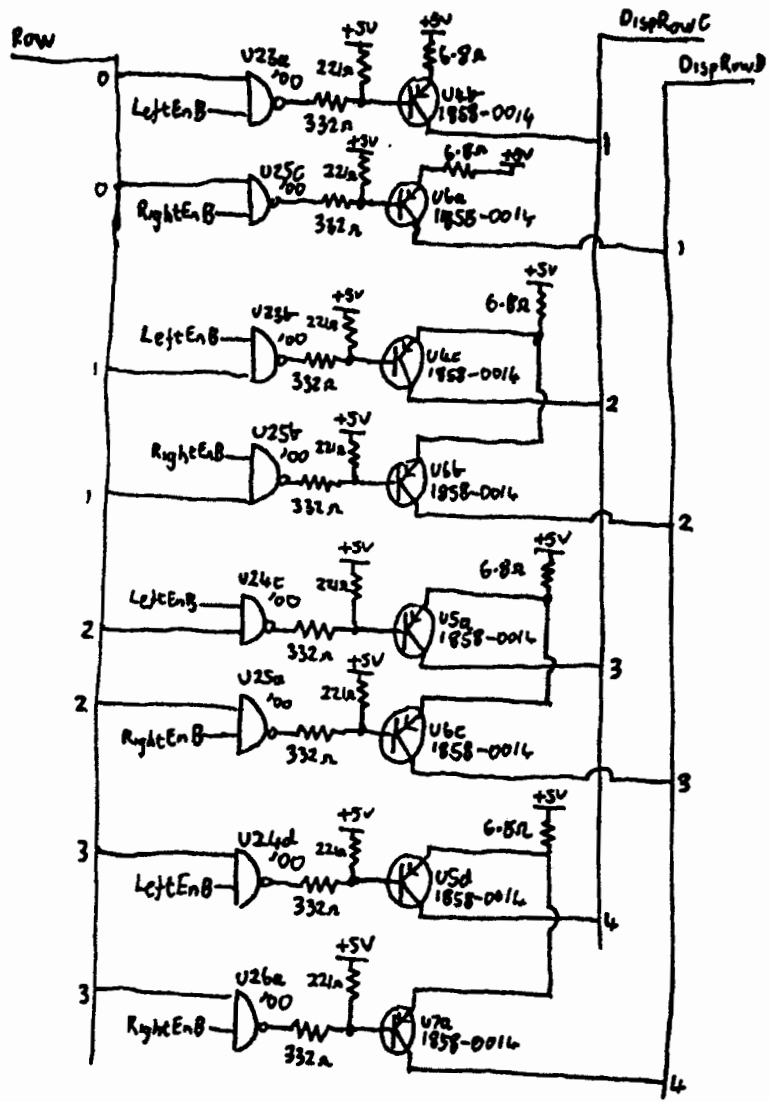
HP9830 Keyboard Cable



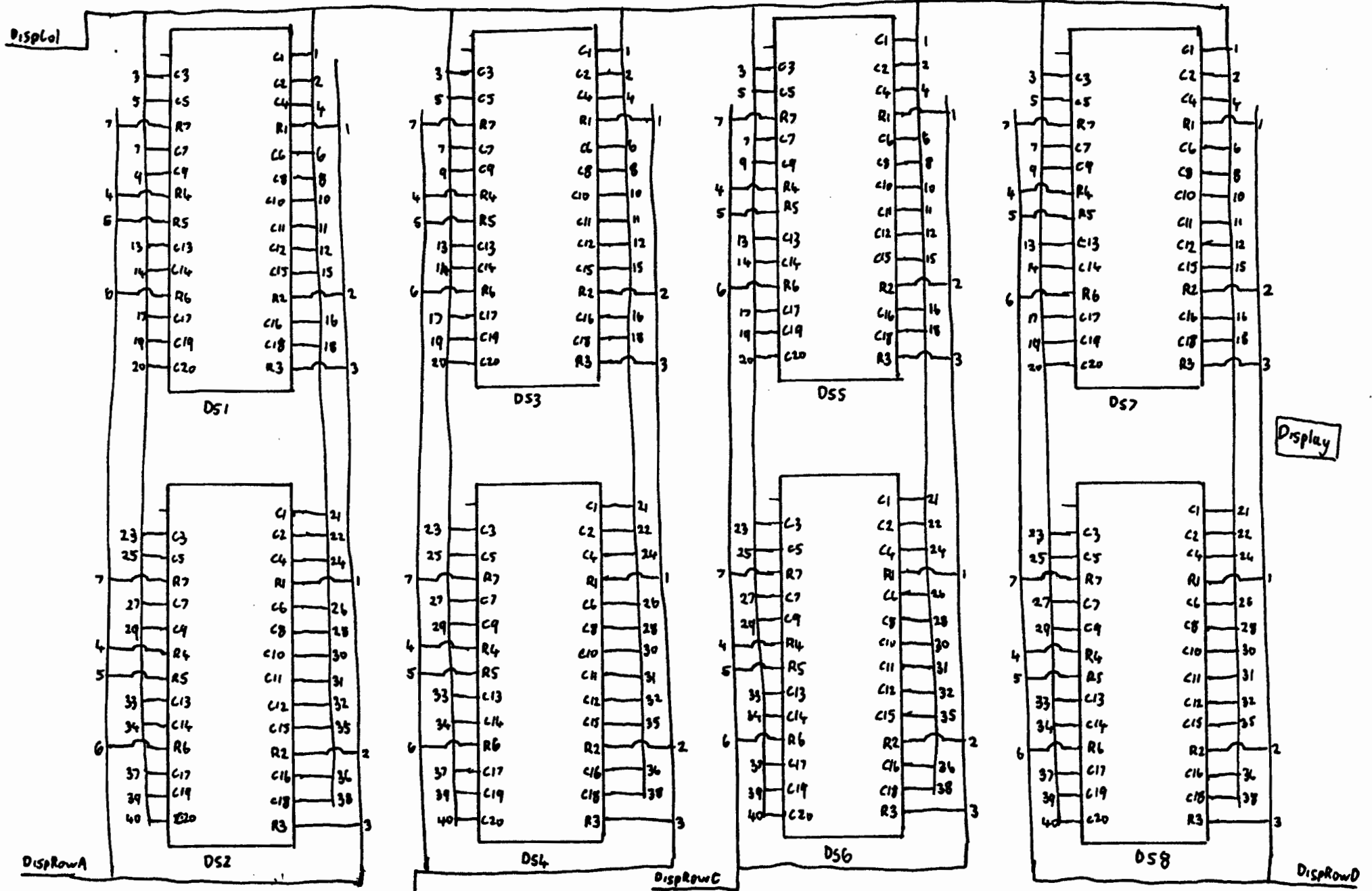


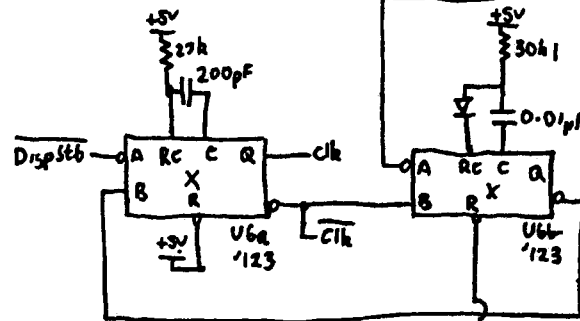
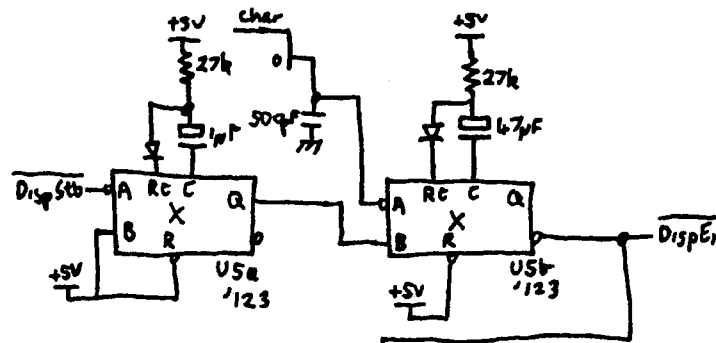
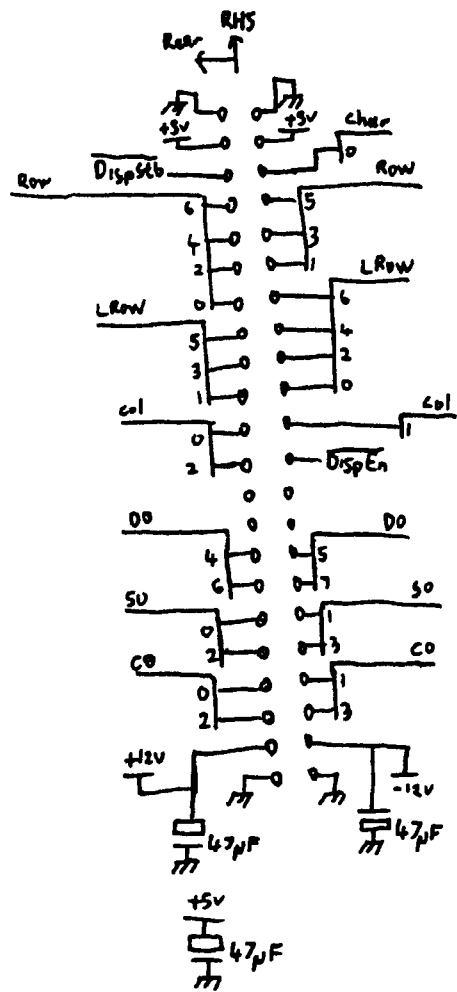


Left Row Drivers

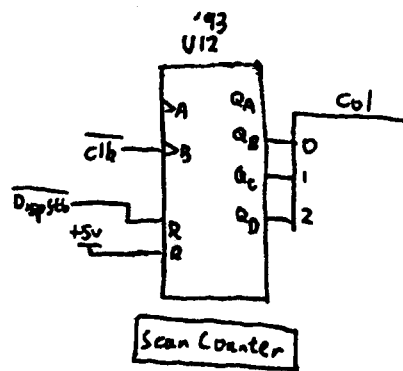


Right Row Drivers

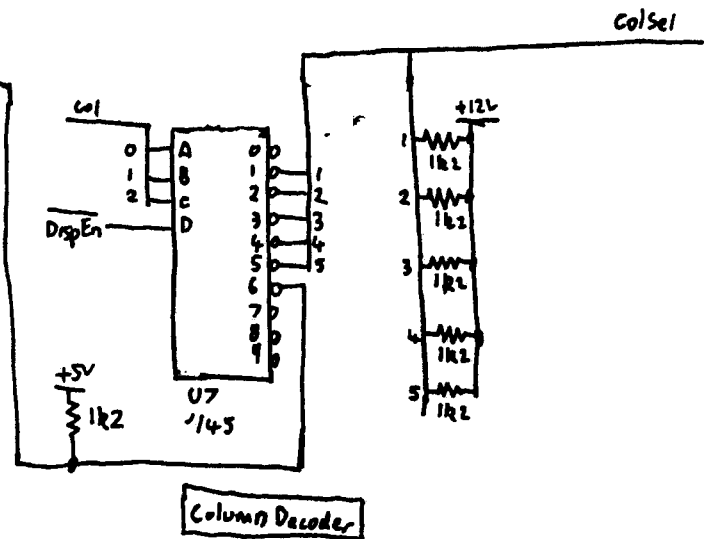




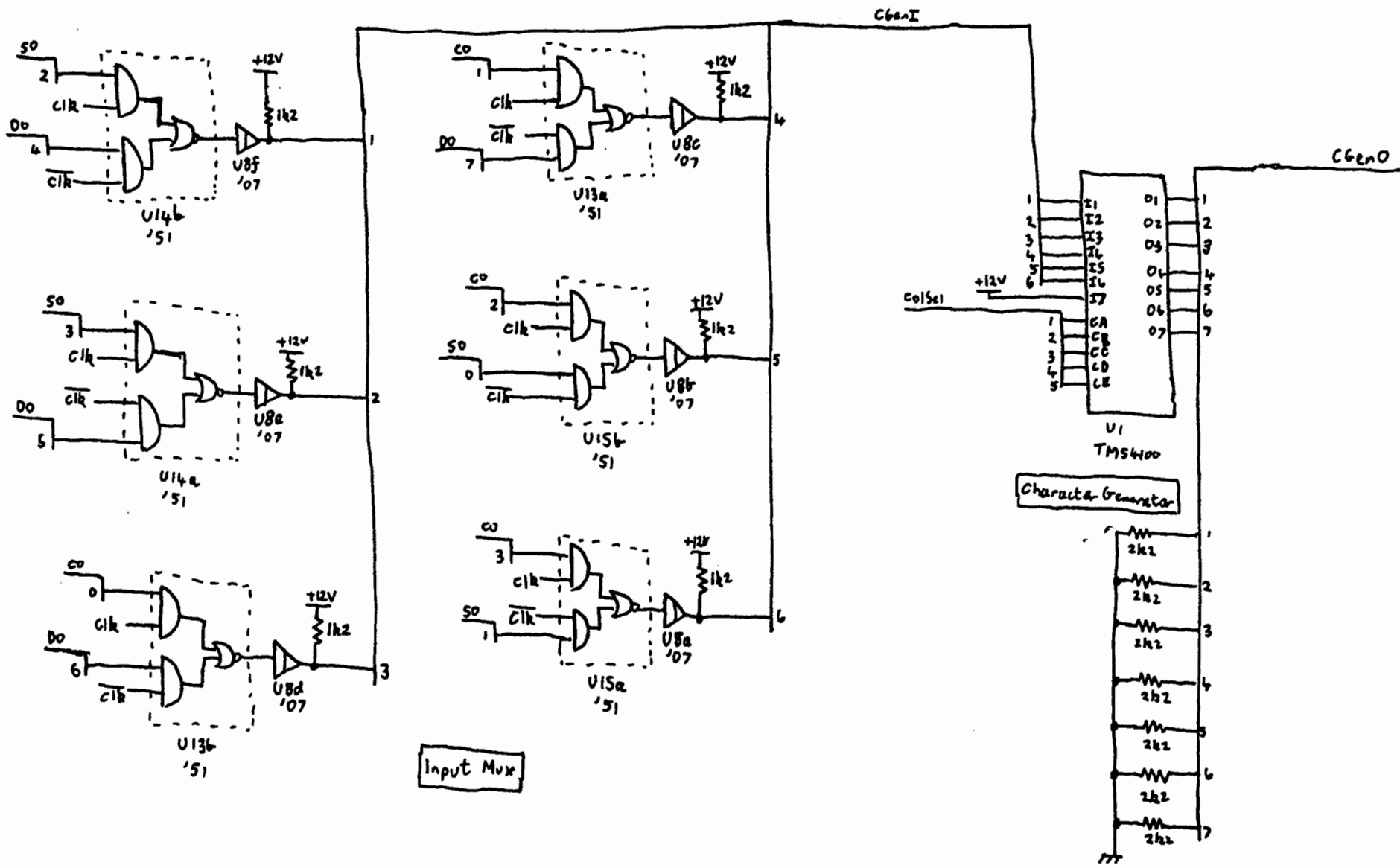
Display Timing

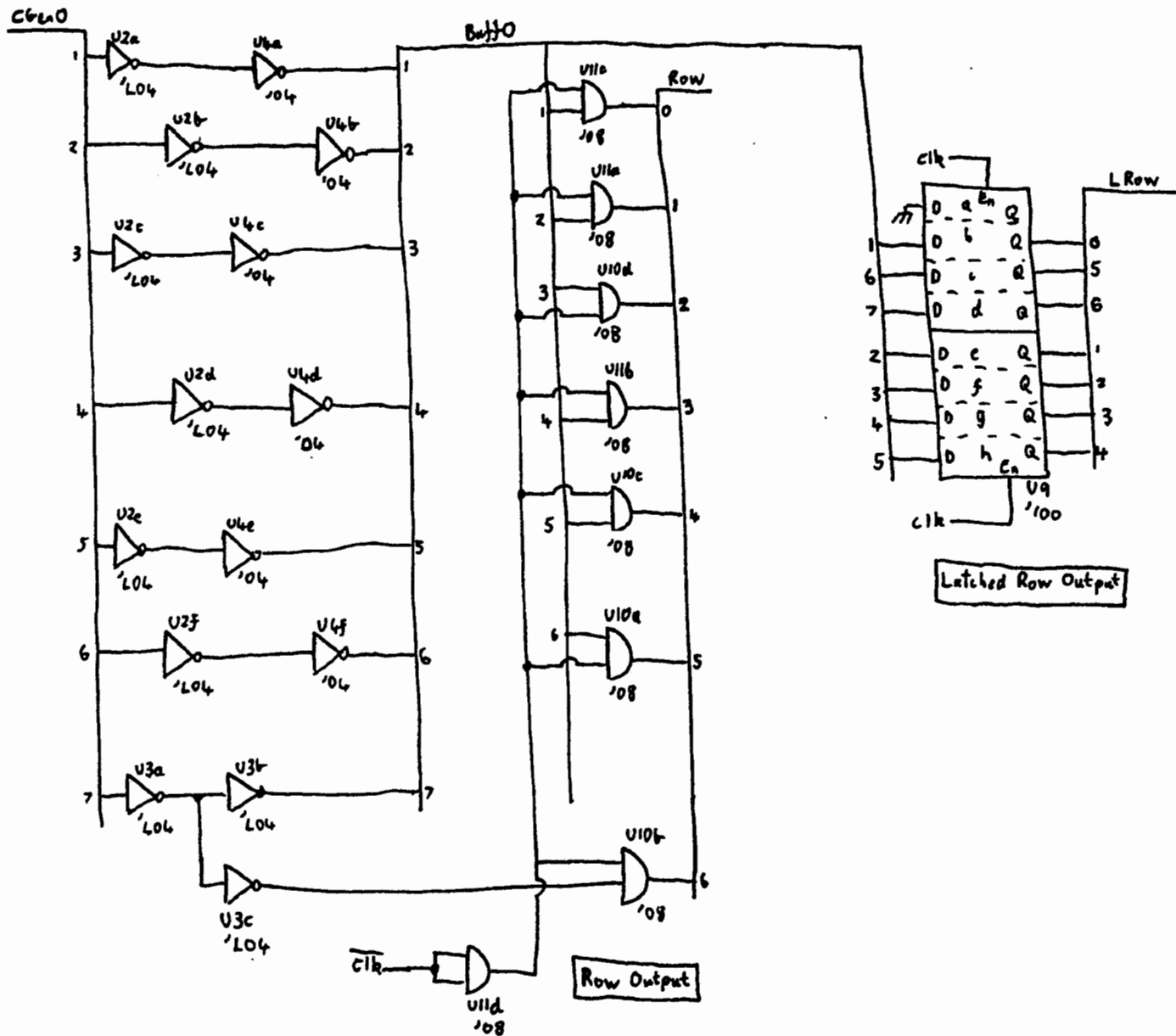


Scan Counter

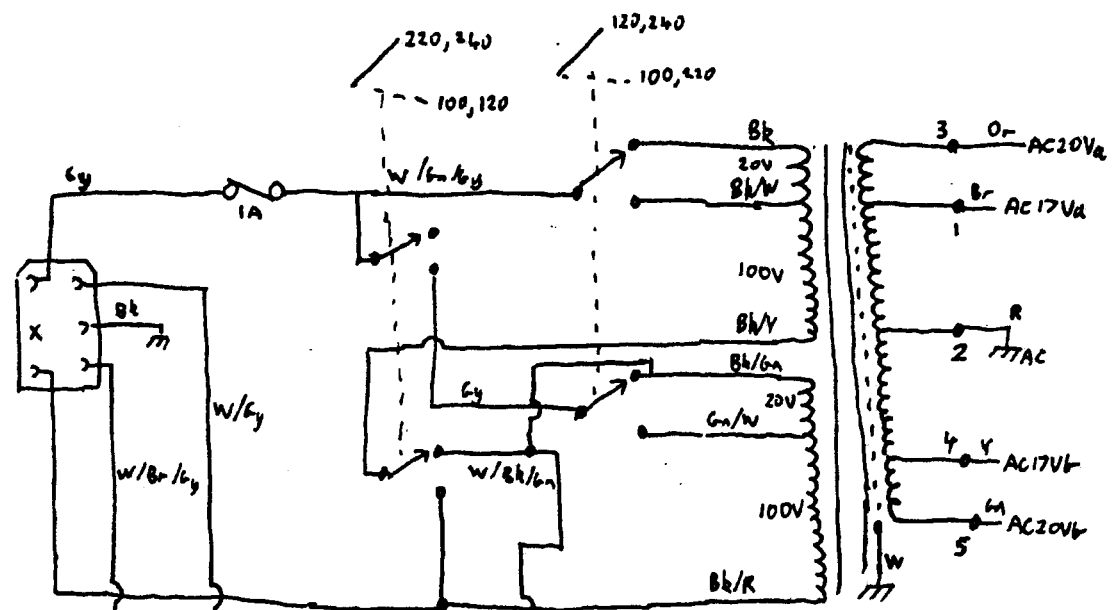
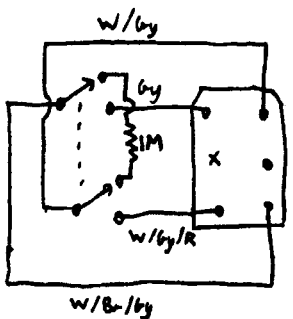


Column Decoder

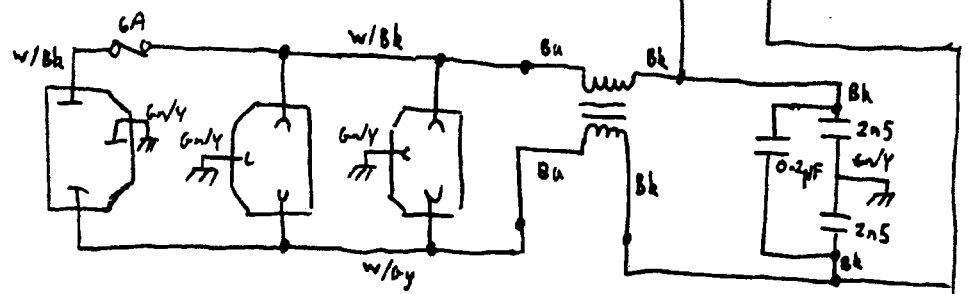




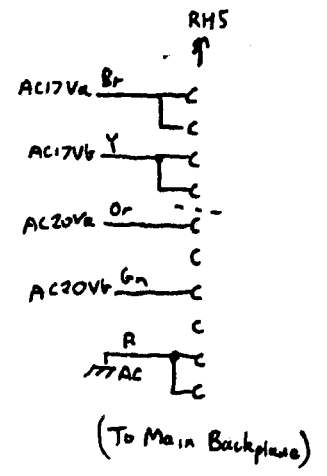
Mains Switch (on Keyboard)

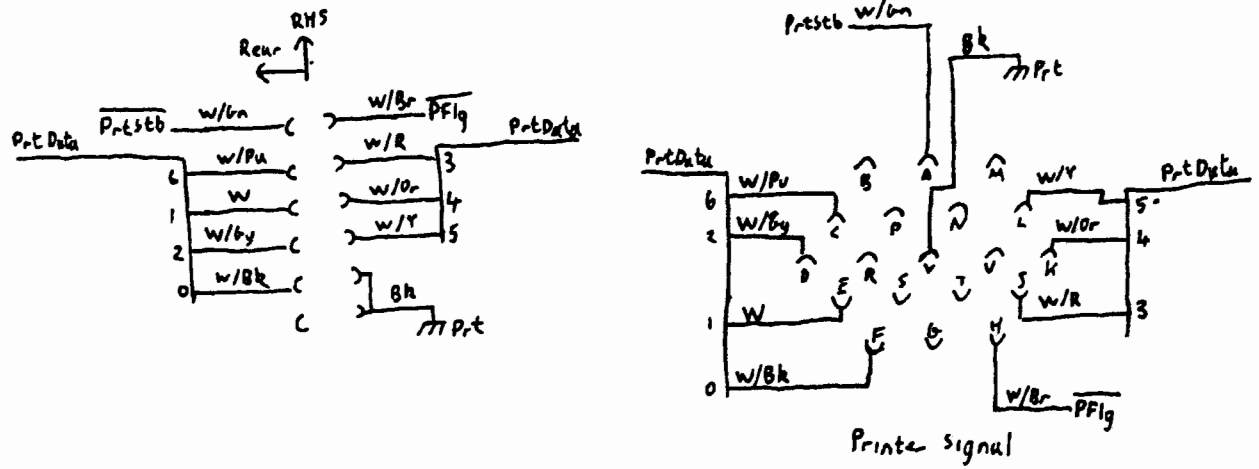


9100-3291

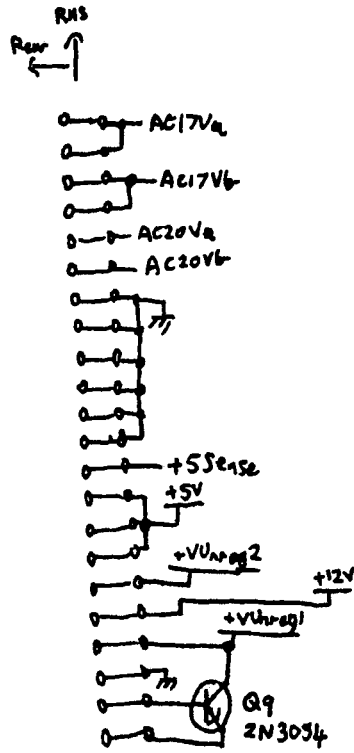


Mains Transformer

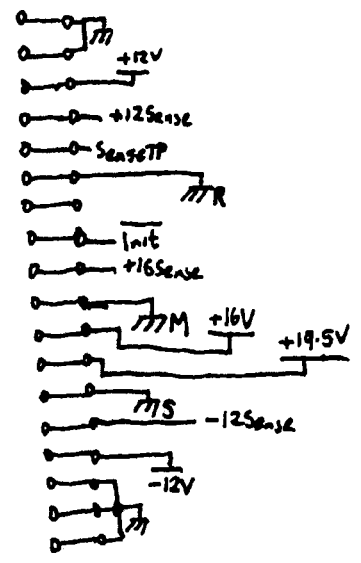




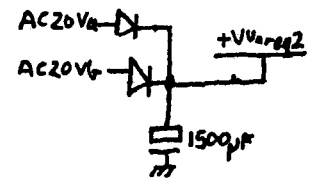
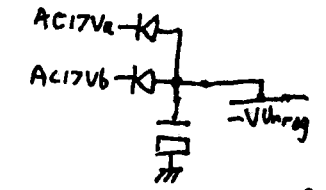
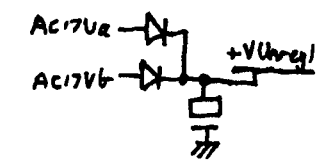
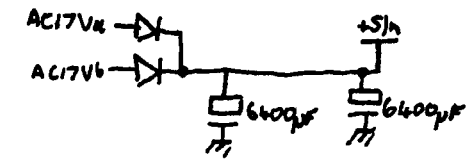
9866 Printer Connector



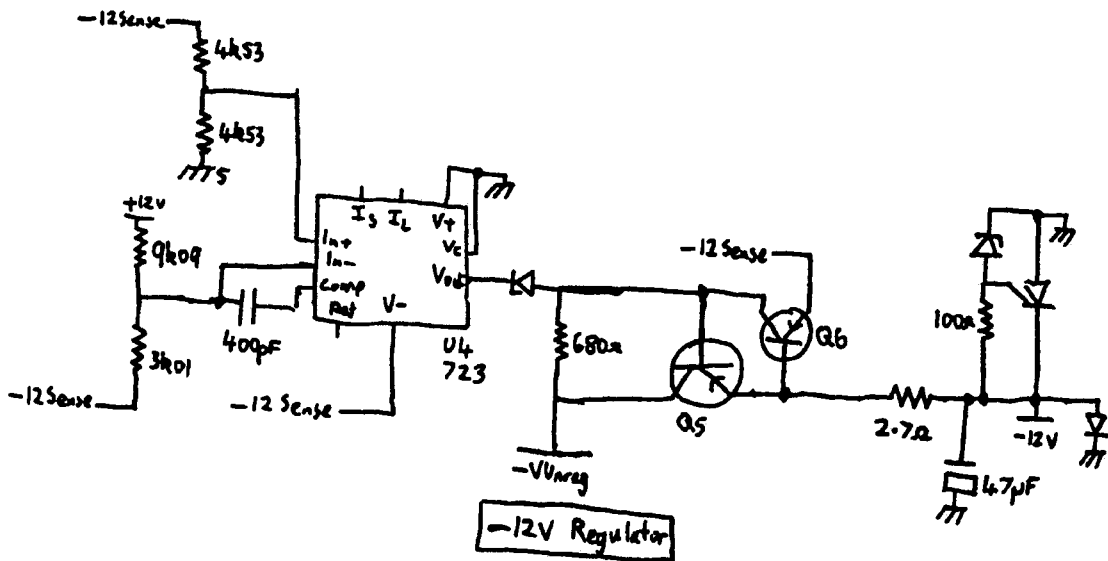
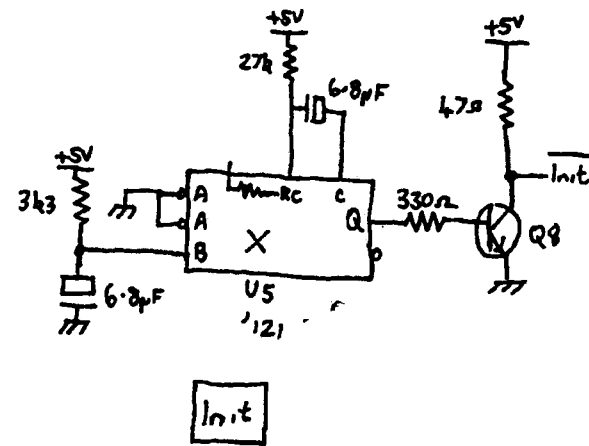
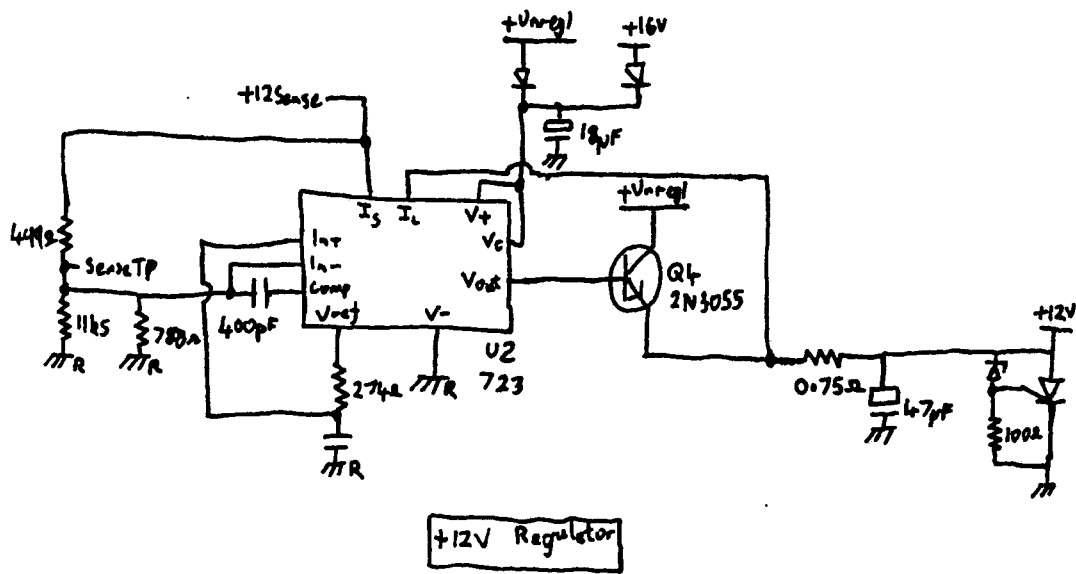
(RH Connector)

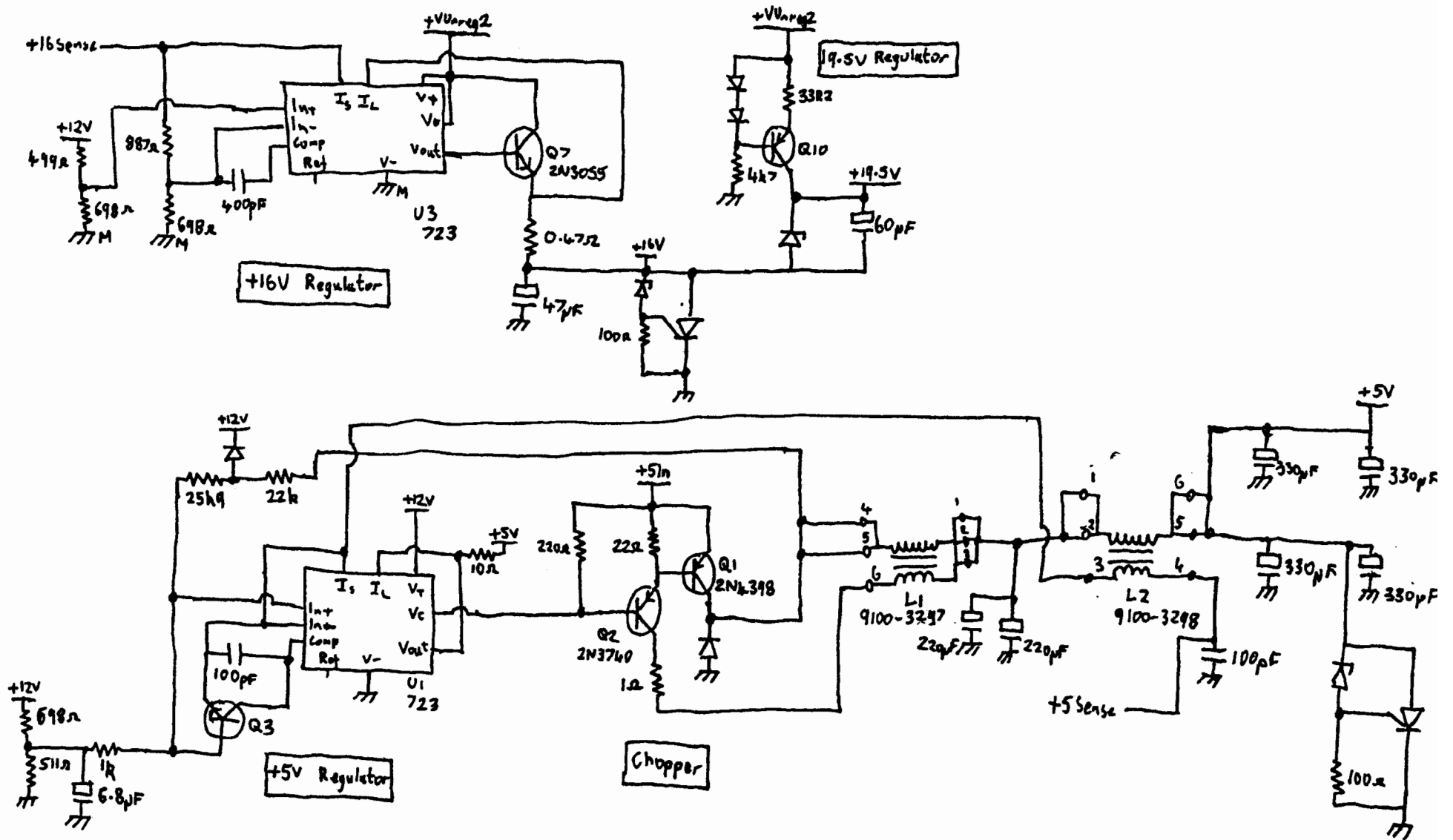


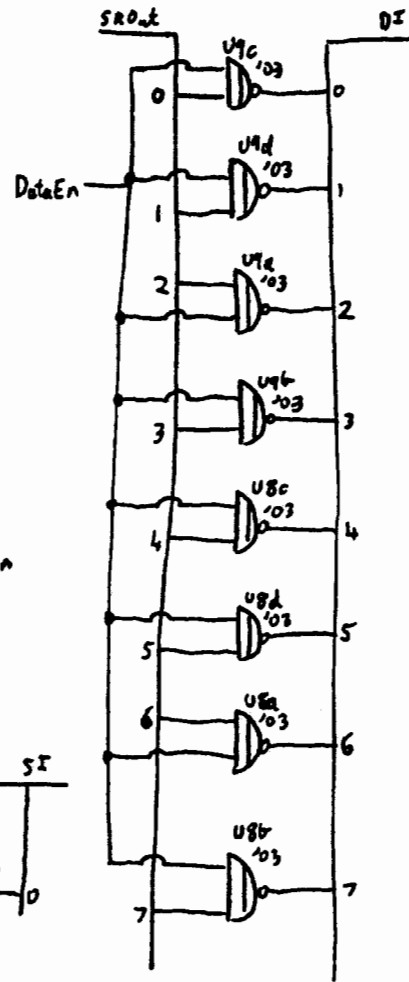
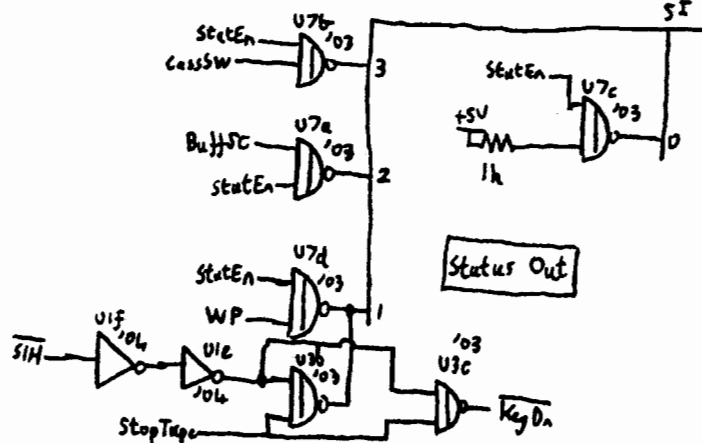
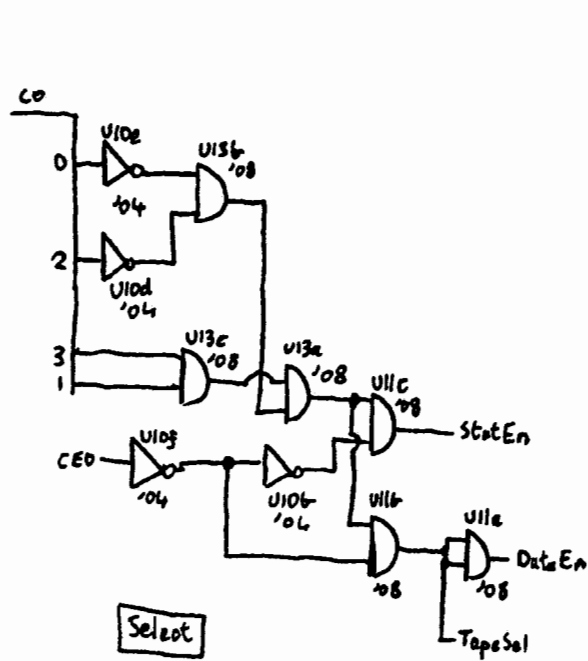
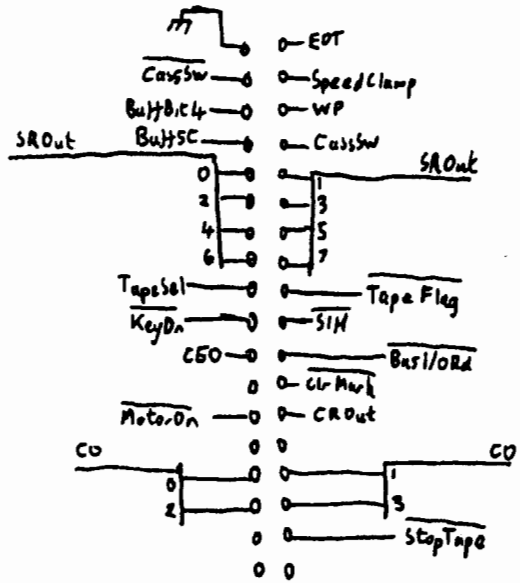
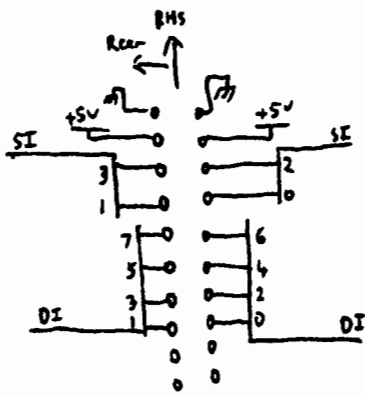
(LH Connector)

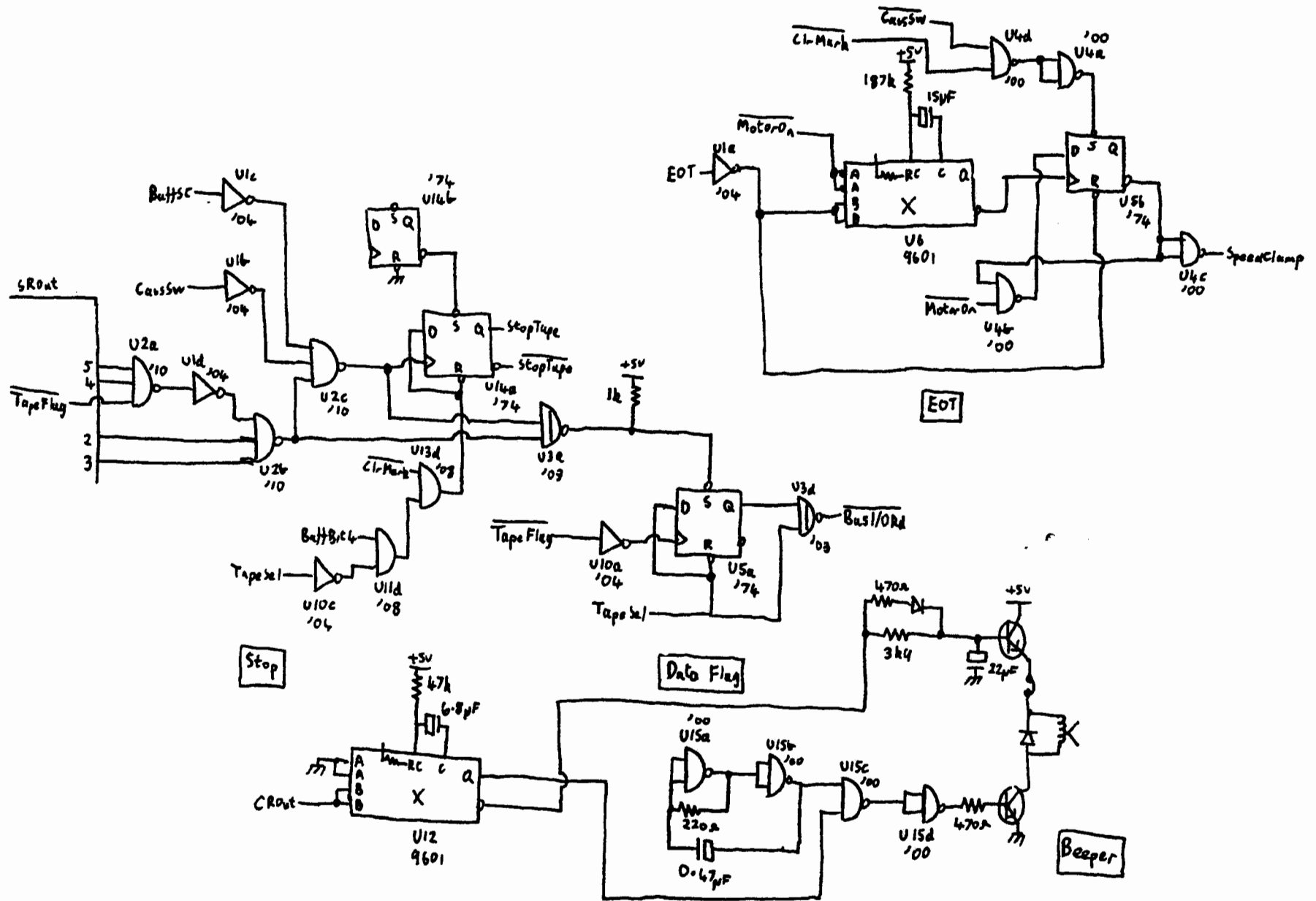


Rectifiers

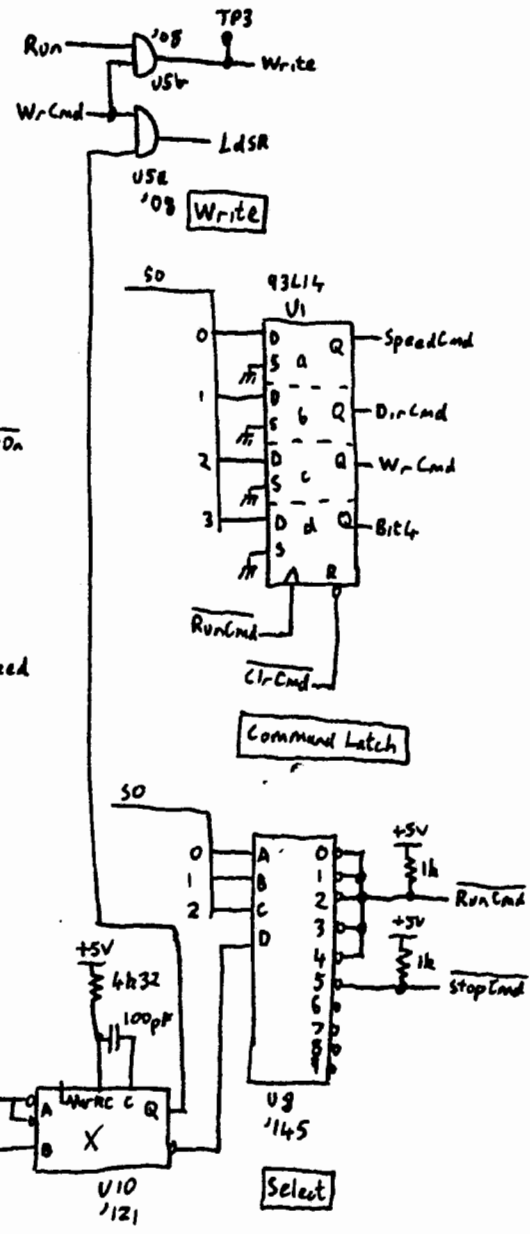
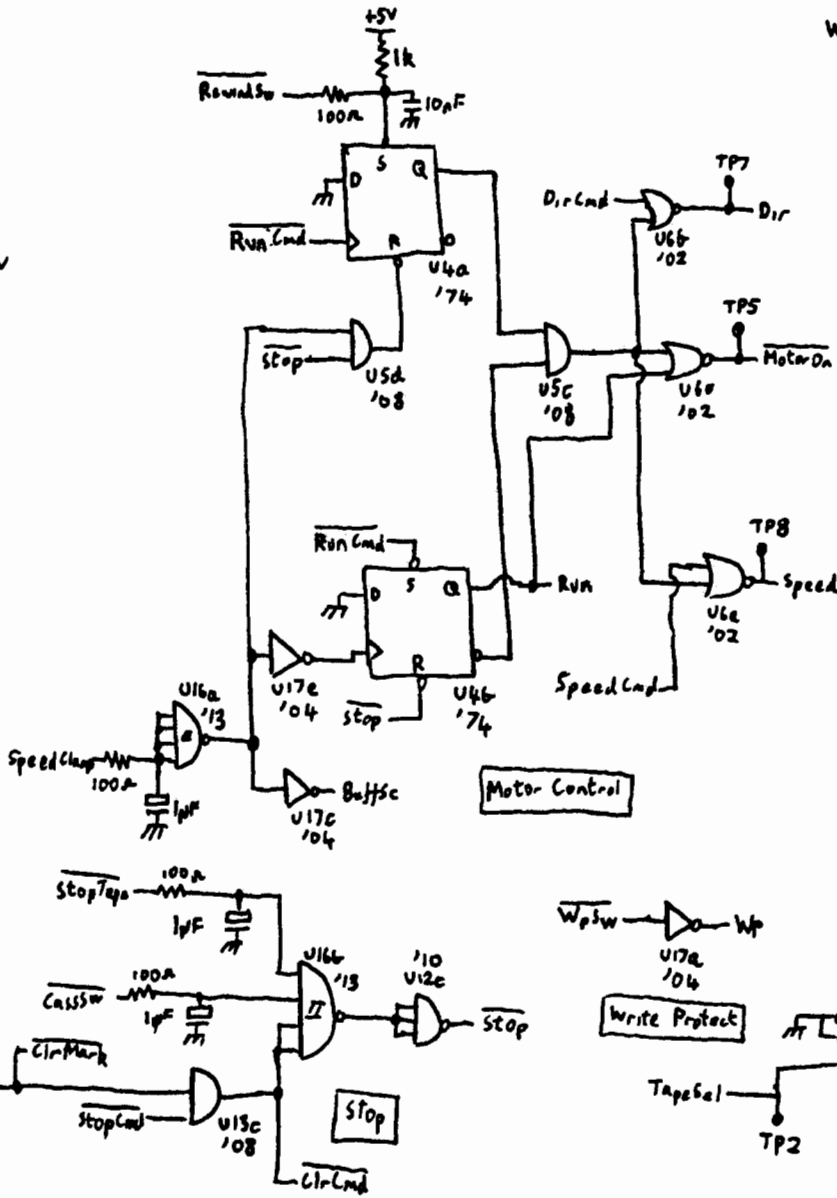
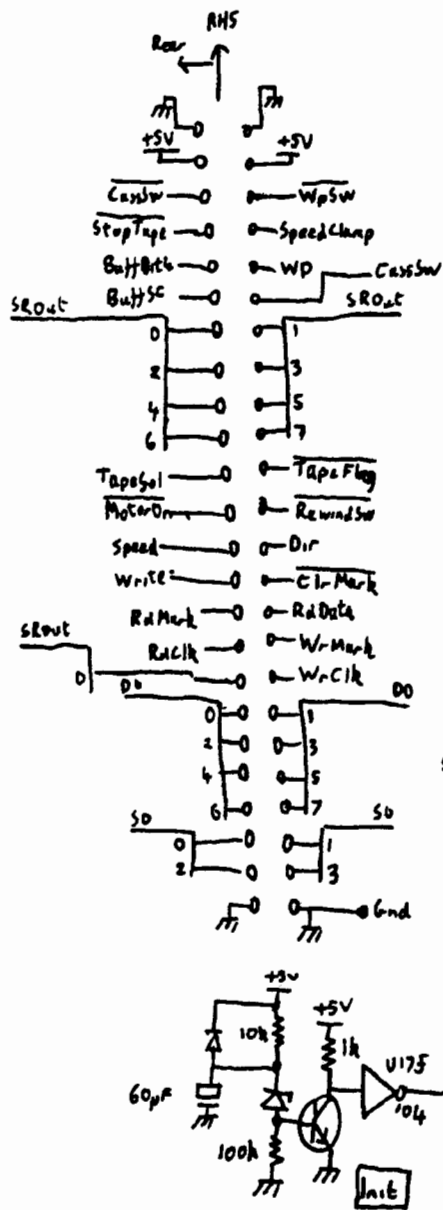


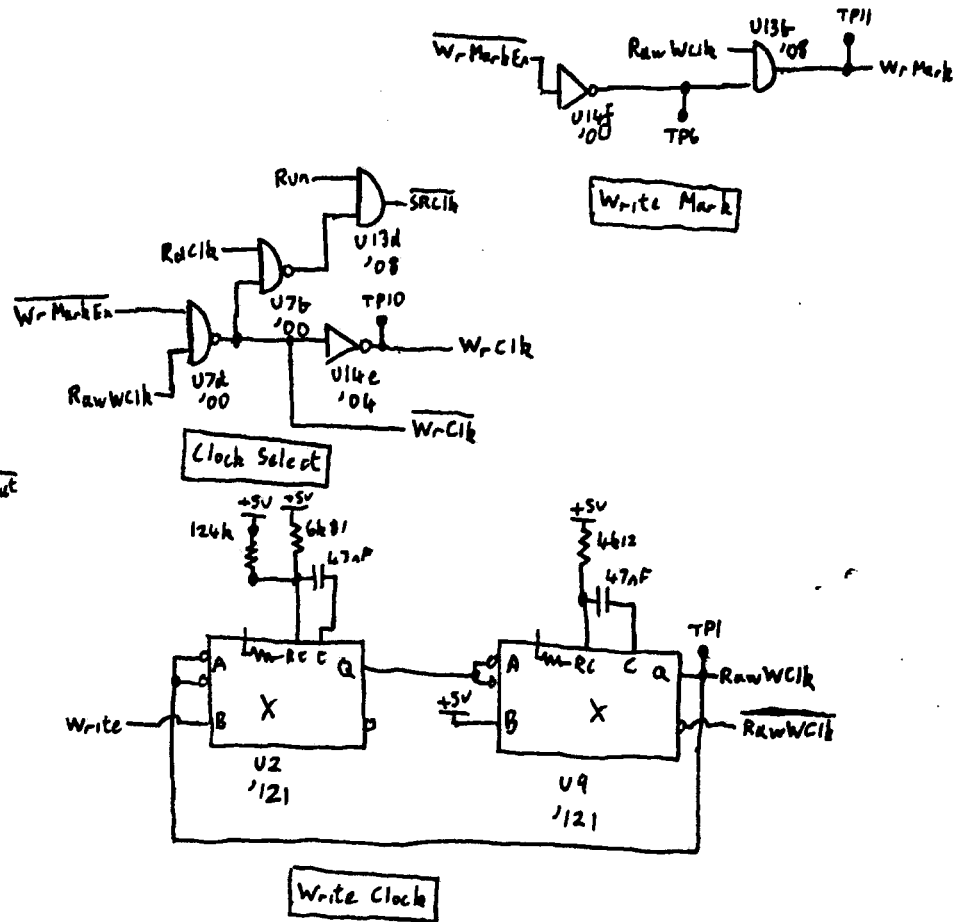
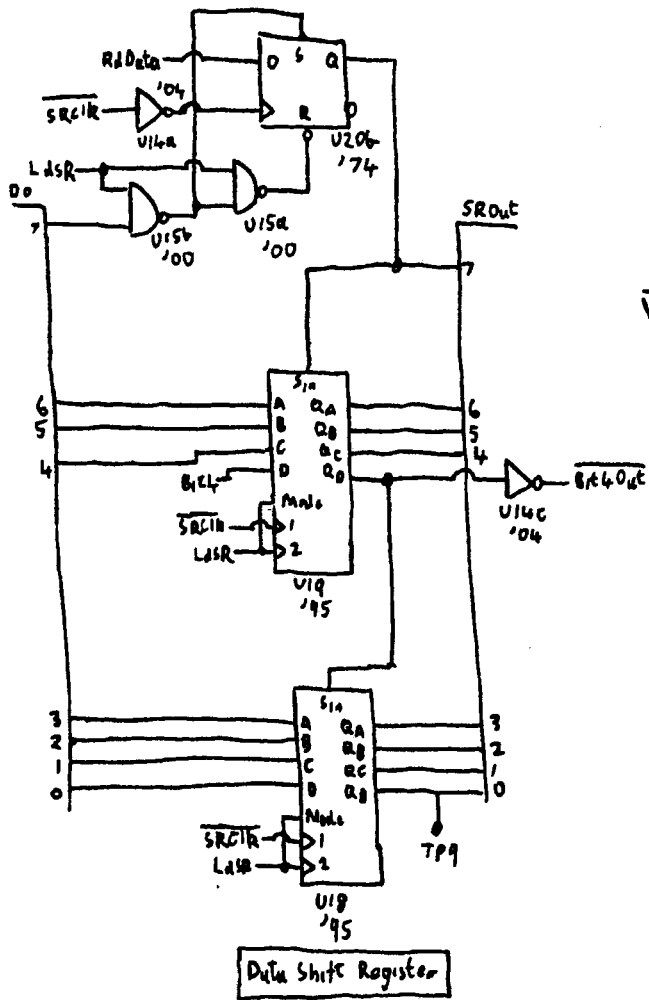


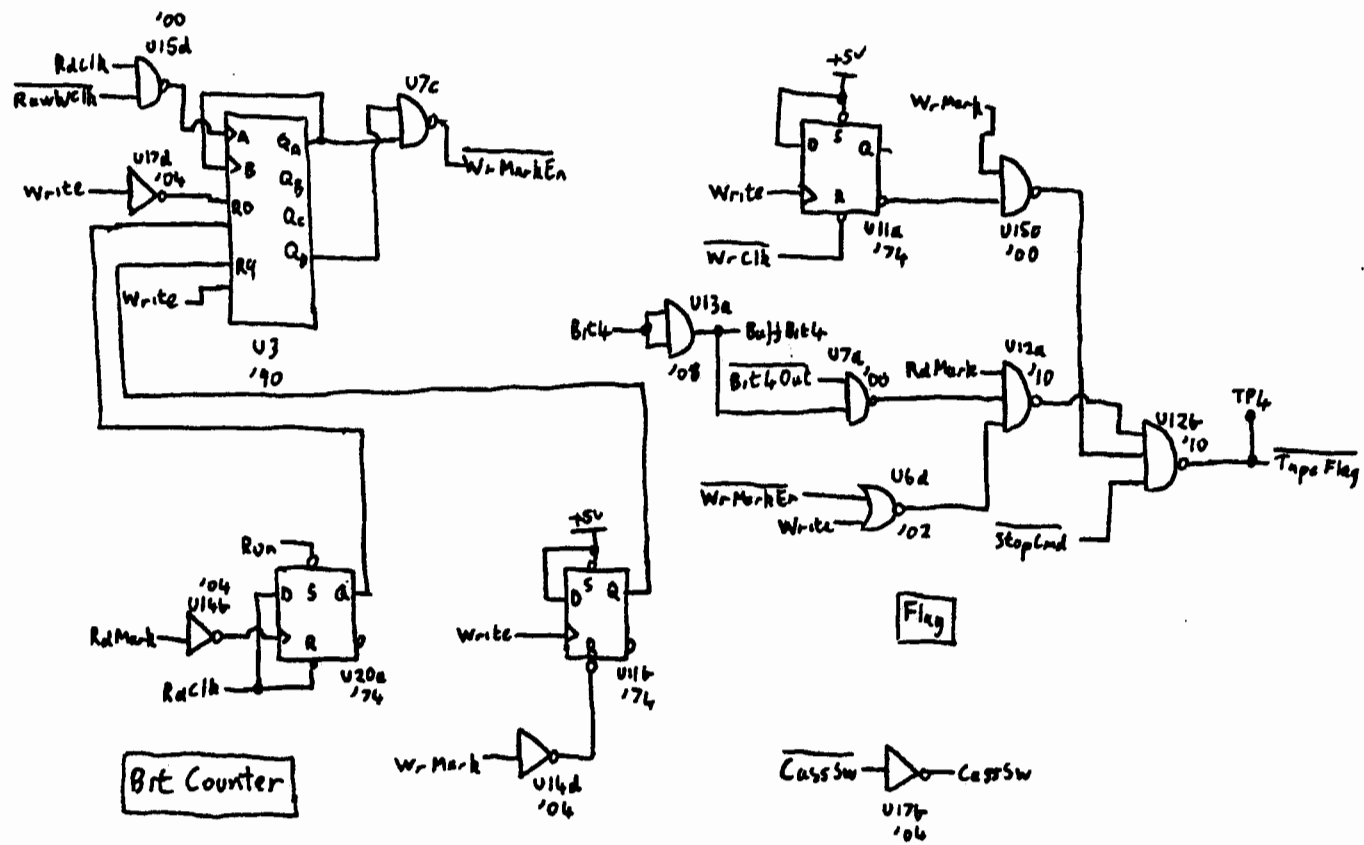


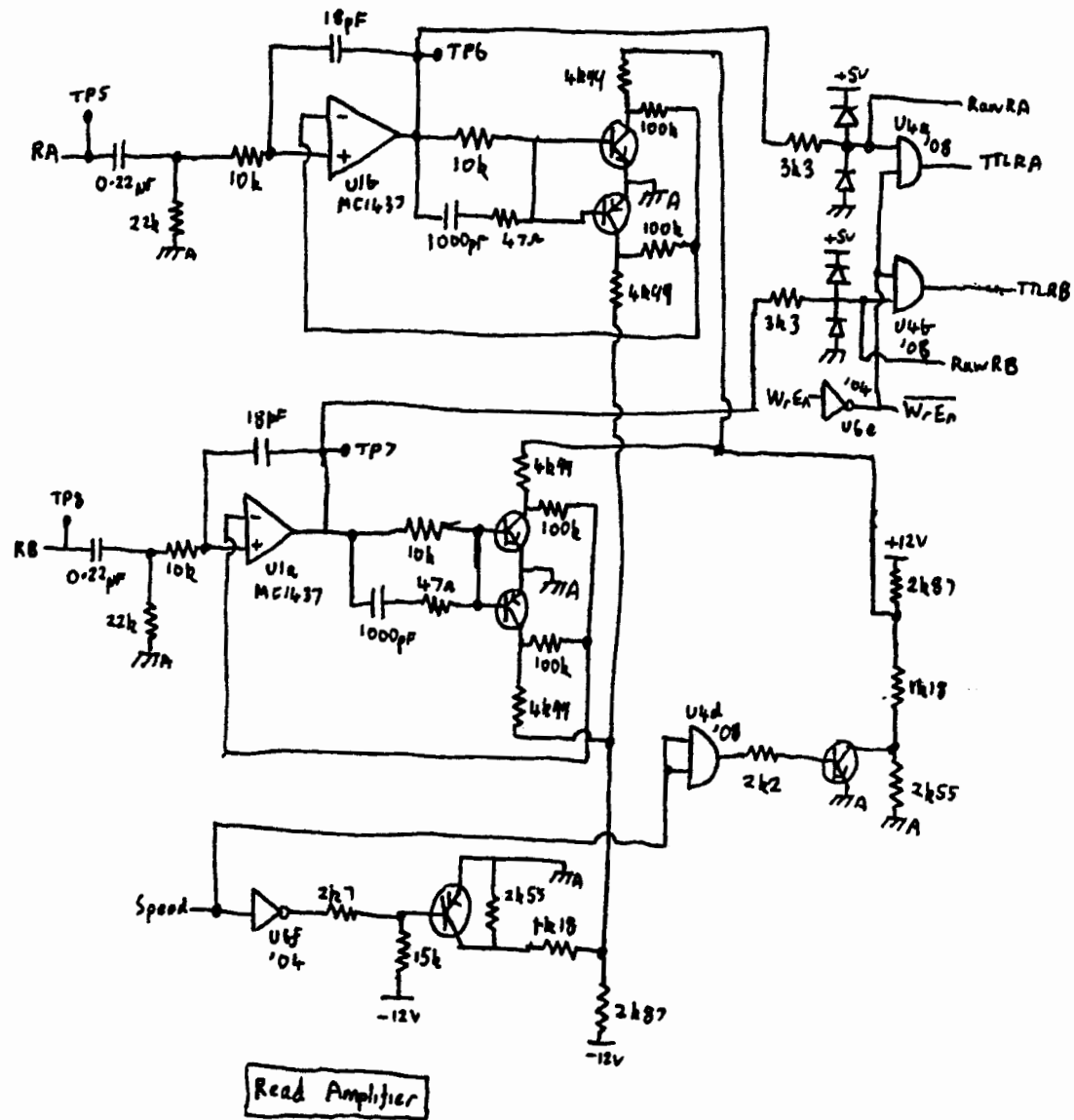
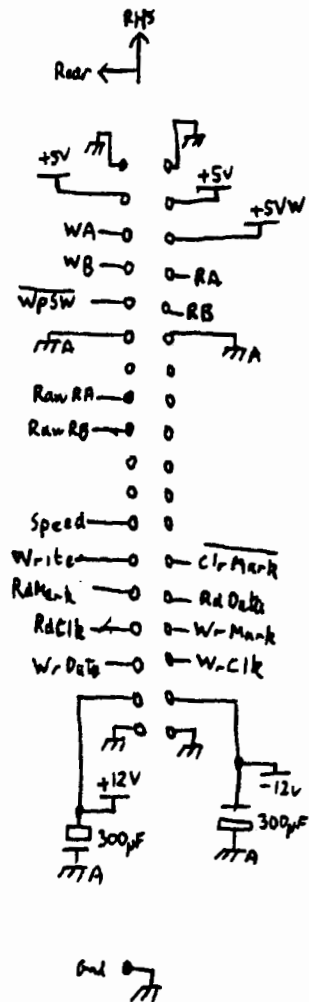


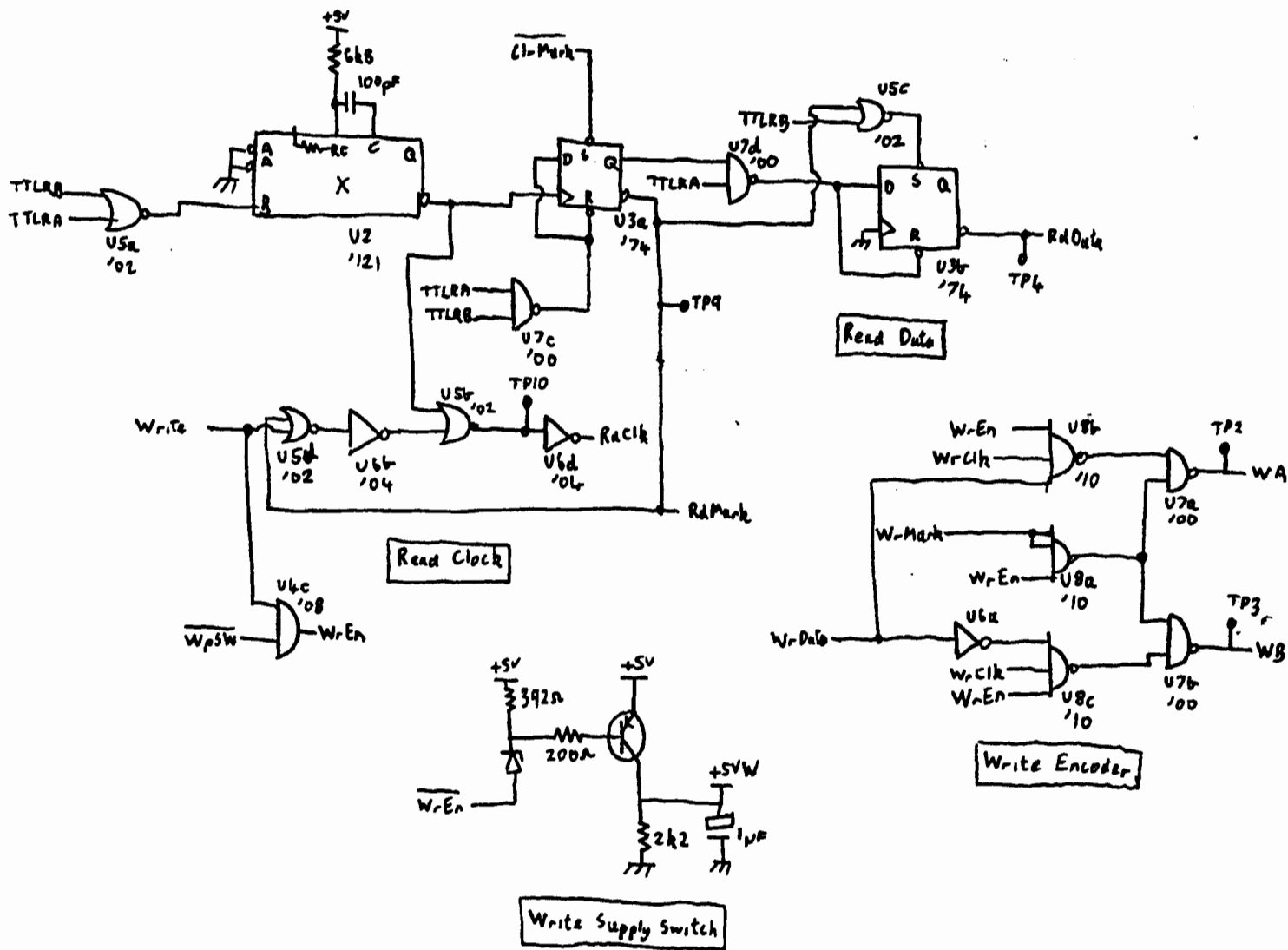
HP 9830 Tape Interface PCB Sheet 2 (Bw/Br) 09830-66561

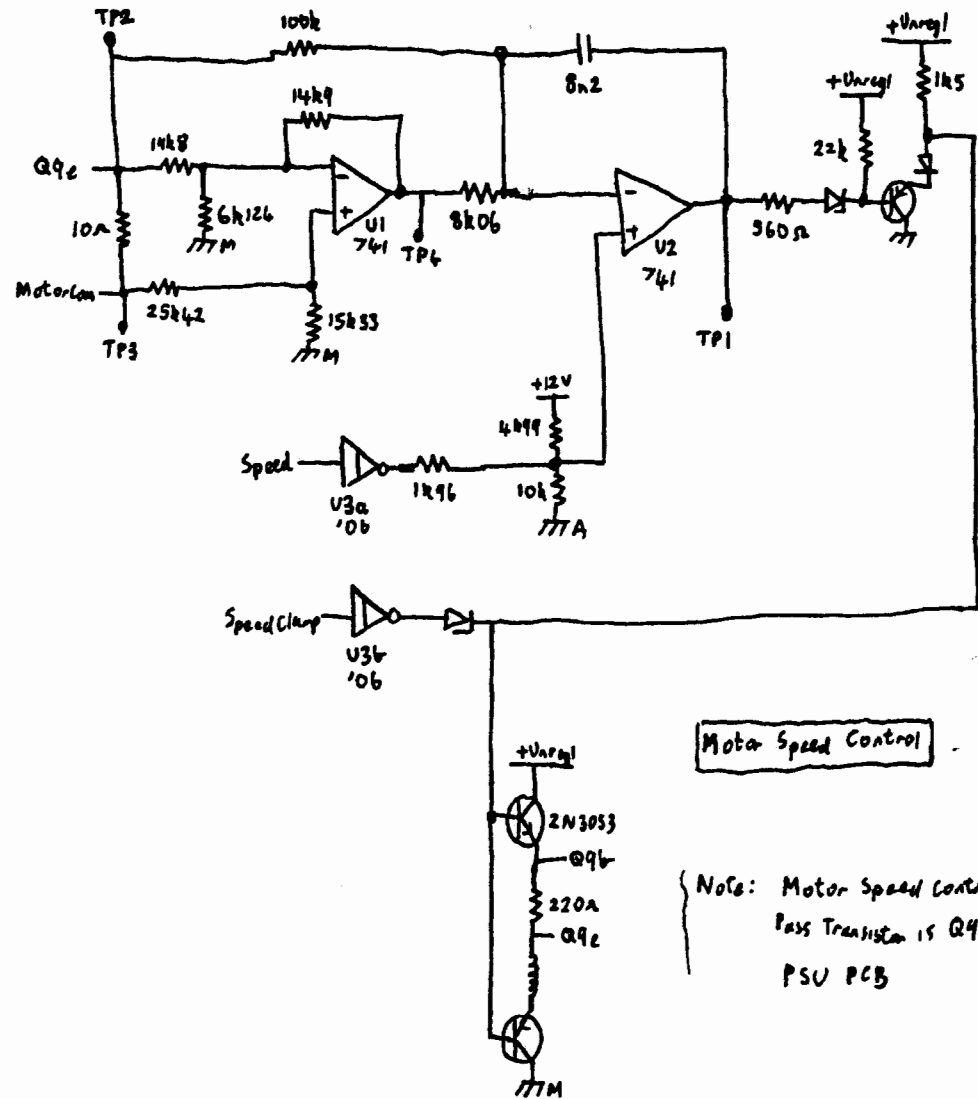
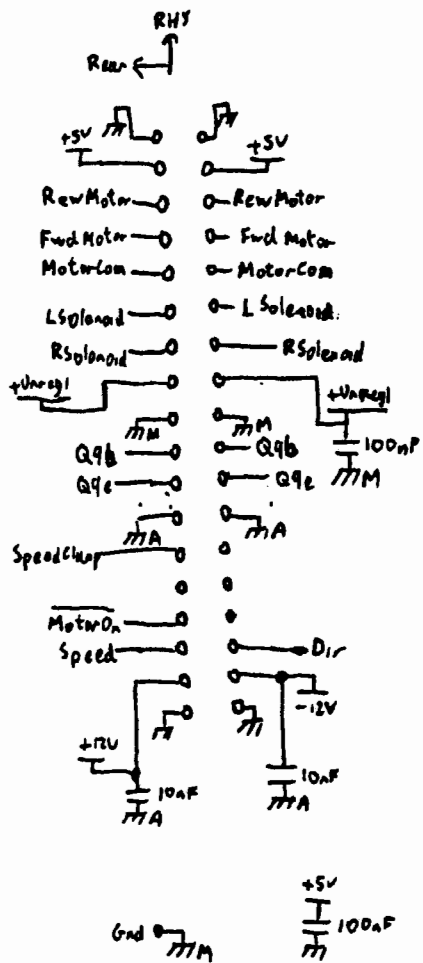






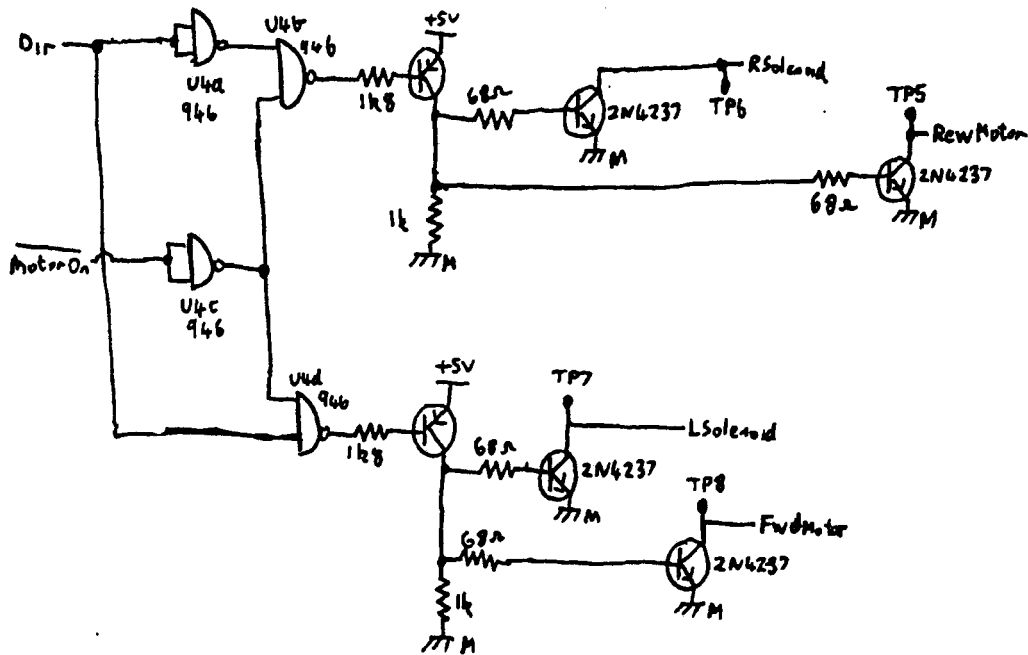




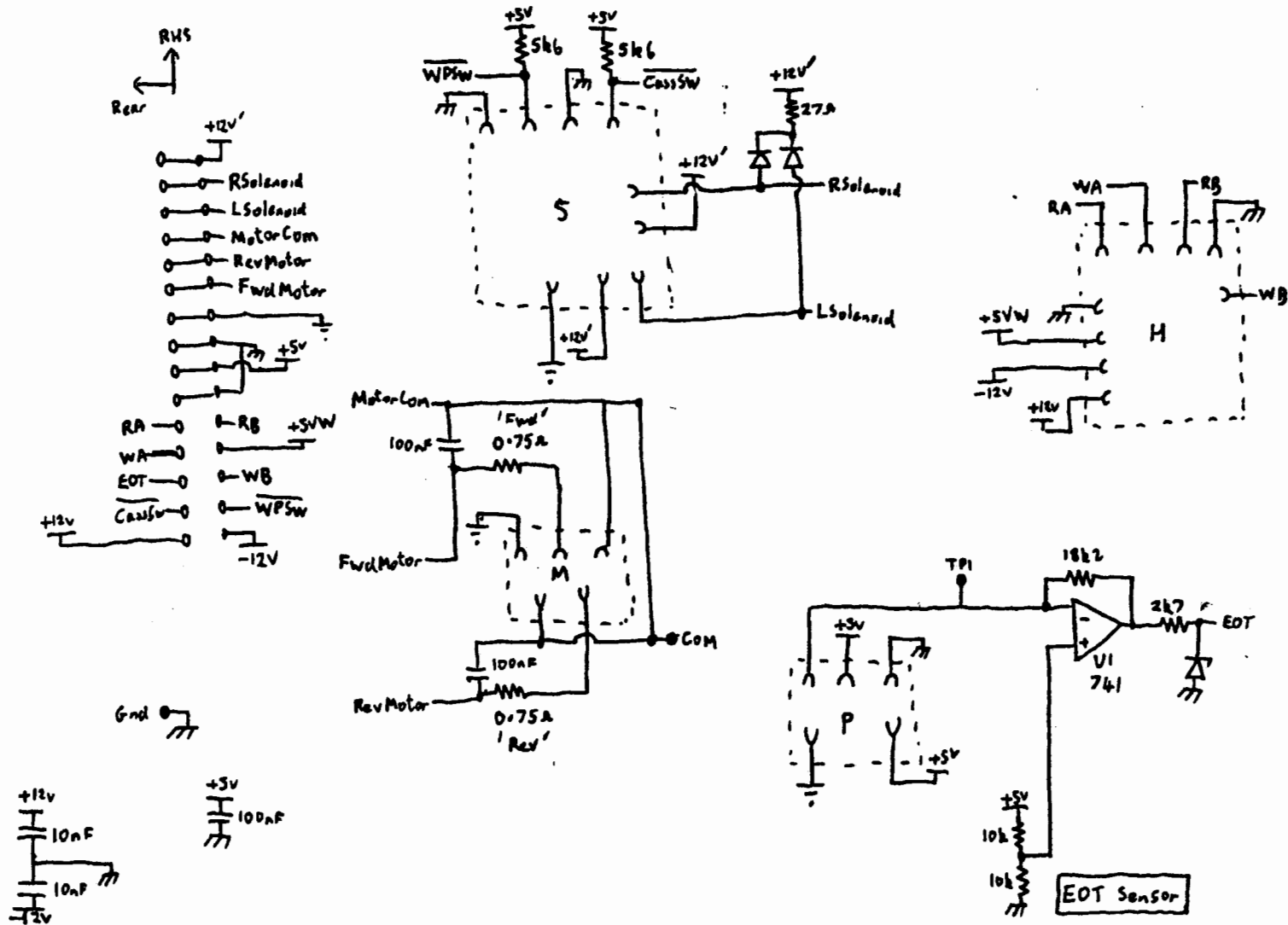


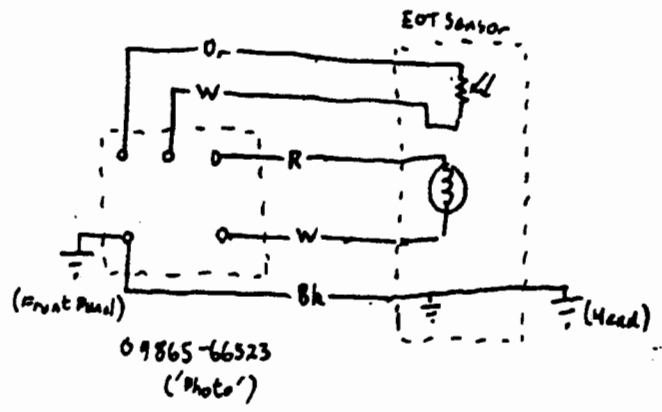
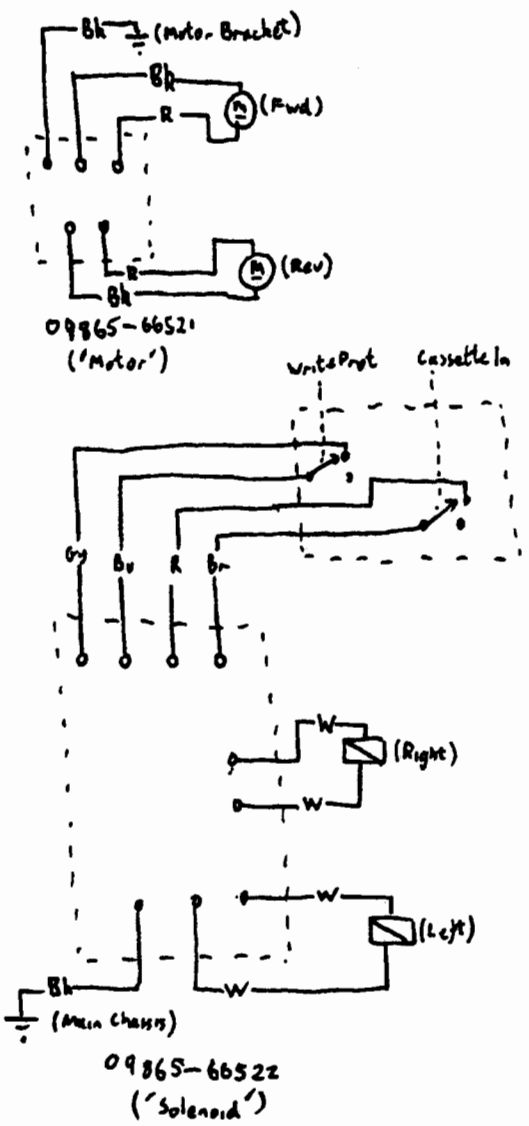
Motor Speed Control

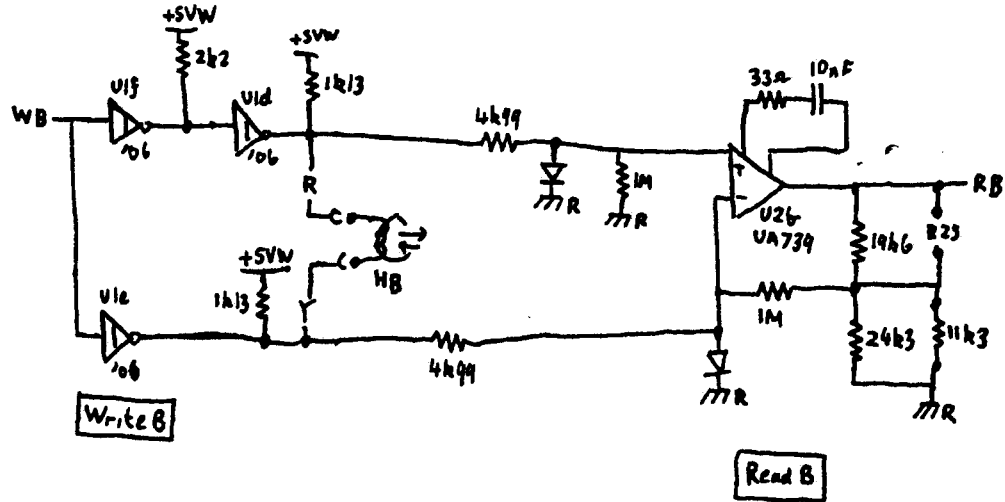
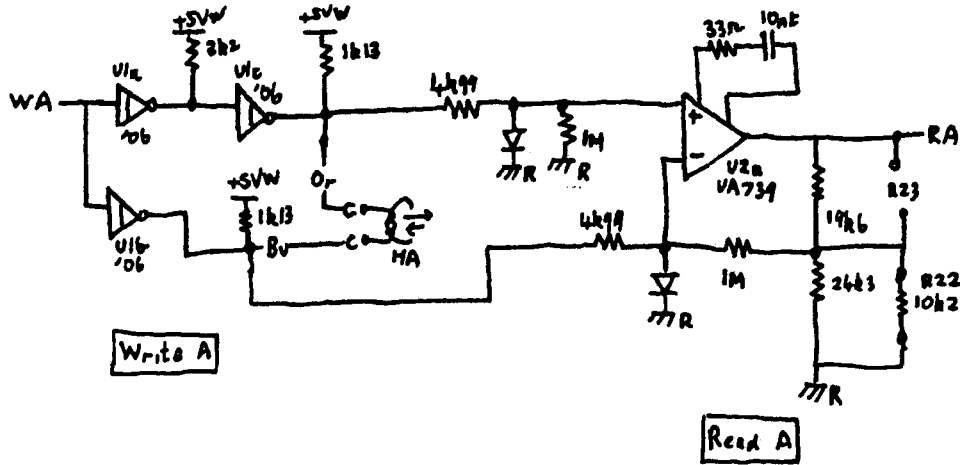
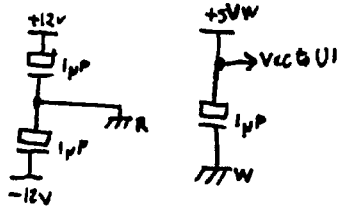
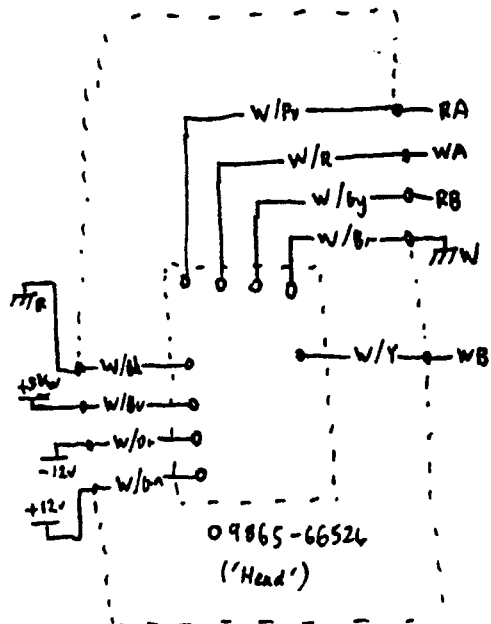
Note: Motor Speed Control Pass Transistor is Q9b on PSU PCB

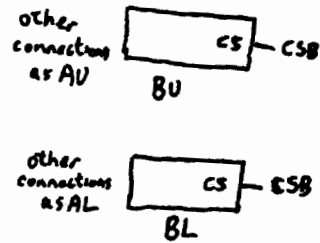
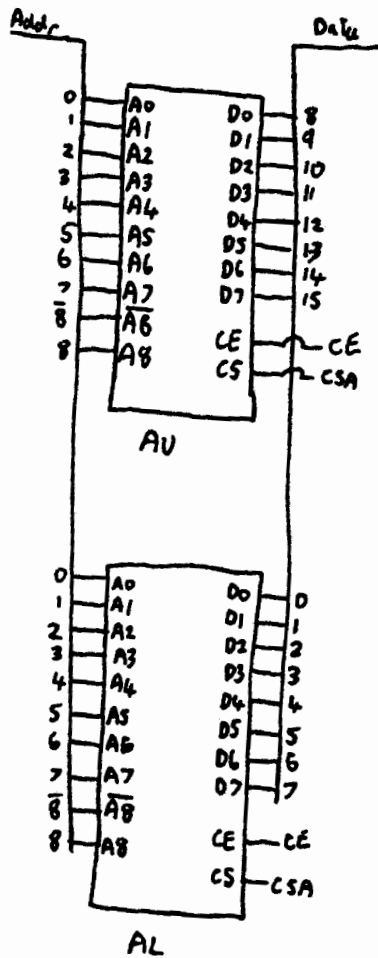
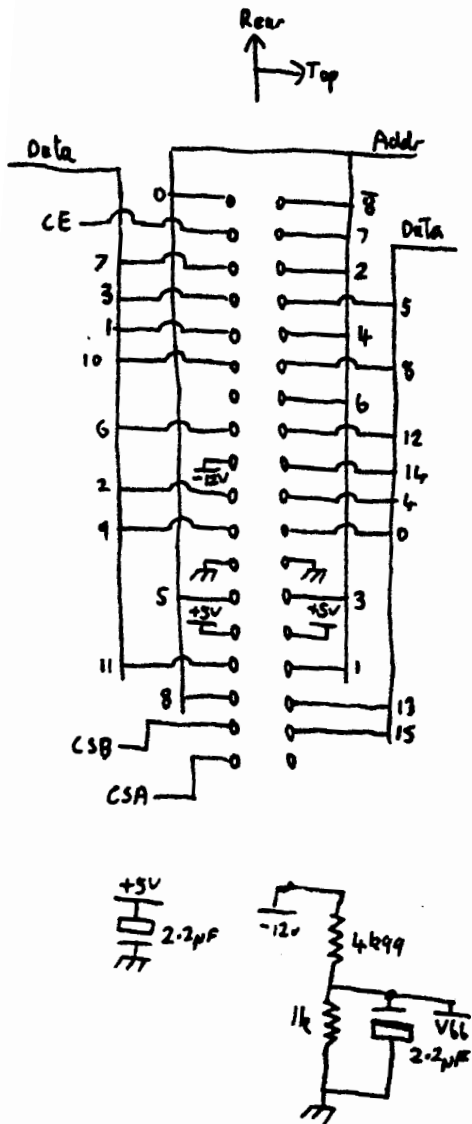


Direction Control









	11274	11272
AL	1818-2186	1818-2134
AU	1818-2187	1818-2135
BL	1818-2188	1818-2136
BU	1818-2189	1818-2137