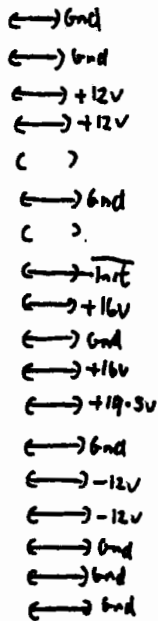
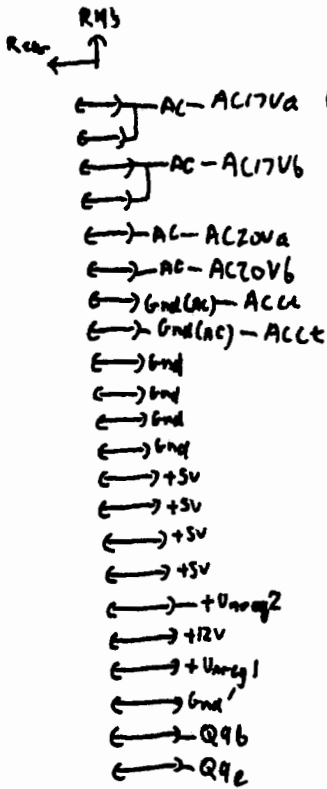
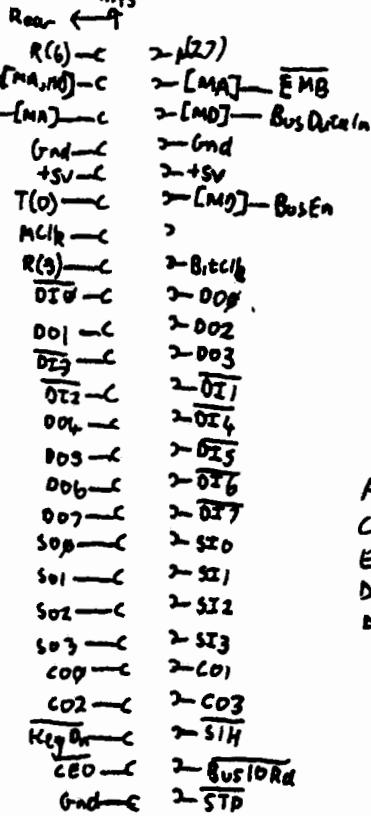


PSU

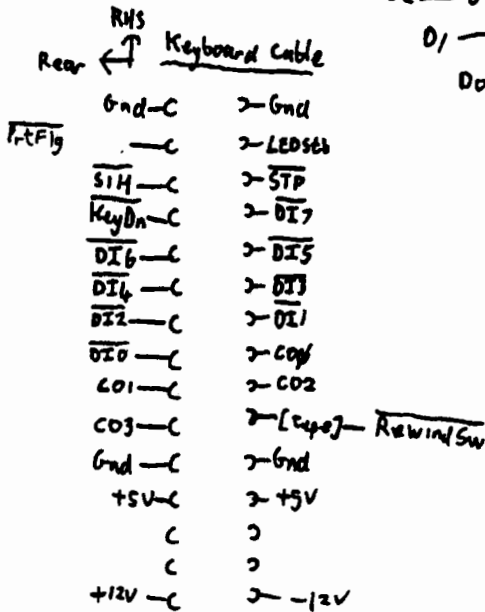


04830-66551

I/O Backplane

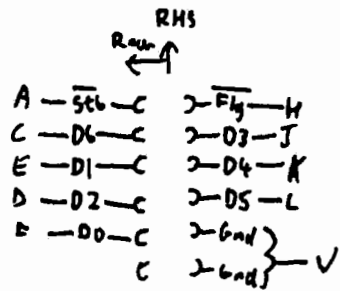


04830-66502

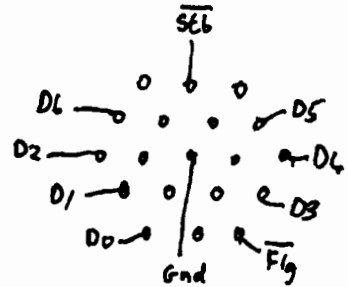


04830-66534

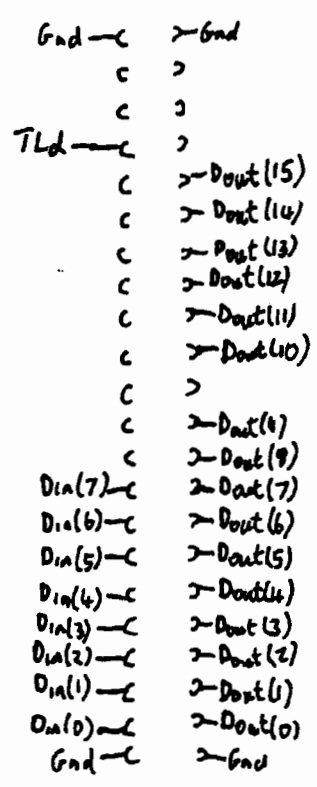
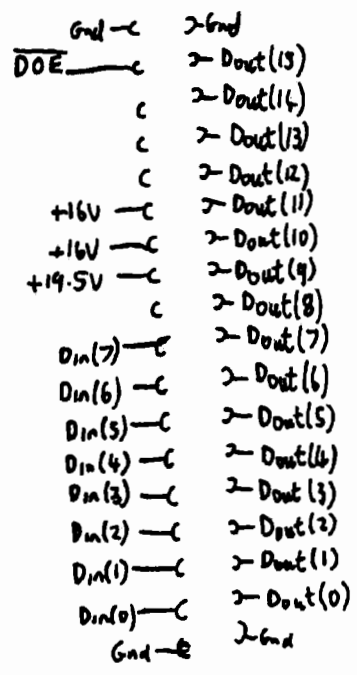
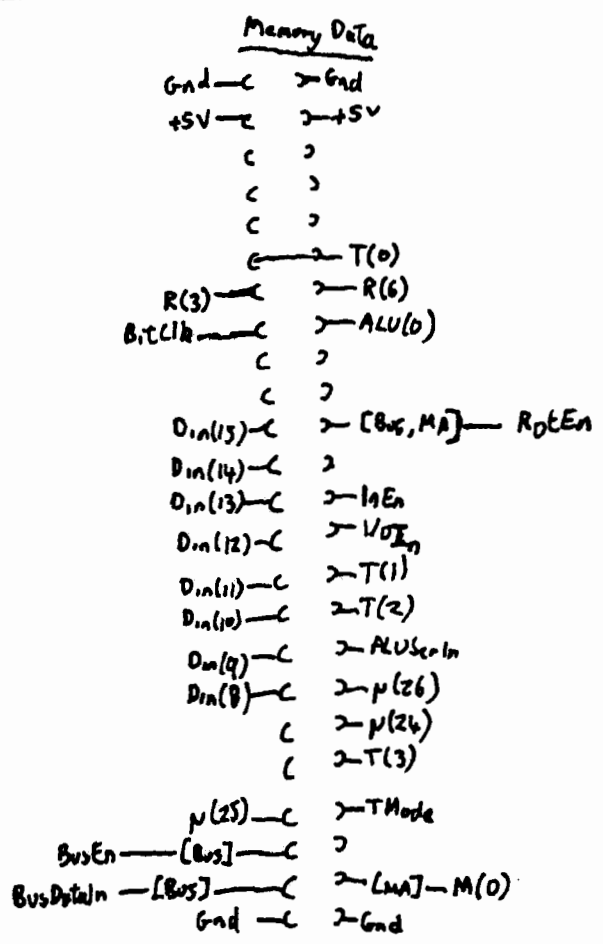
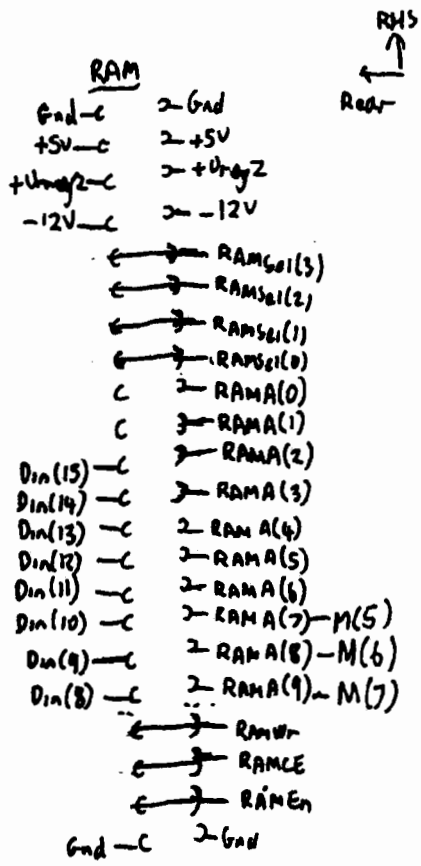
9866 Printer



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	>	RAMsel(7)
RAMA(5)	-C	>	RAMsel(6)
RAMA(6)	-C	>	RAMsel(5)
M(5) RAMA(7)	-C	>	RAMsel(4)
M(6) RAMA(8)	-C	>	RAMsel(3)
M(7) RAMA(9)	-C	>	RAMsel(2)
RAMR	-C	>	RAMsel(1)
RAMCE	-C	>	RAMsel(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

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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

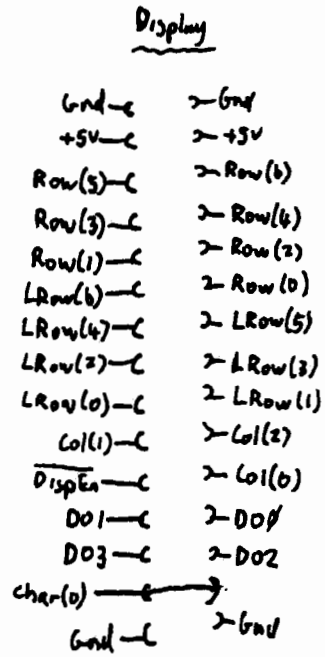
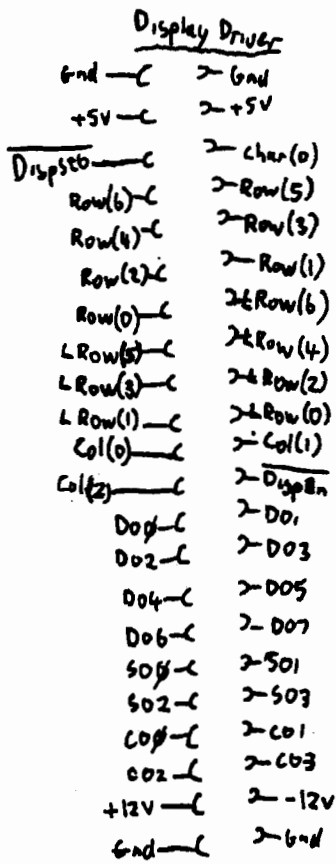
Rear ↑  
LHS ←

- 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

09865-665b2

- 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  
 Rdck 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 R-Clk

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"  
 SpeedClk C )  
 C )  
 MotorOn C )  
 speed C 2 Dir  
 +12V C 2 -12V  
 Gnd C 2 Gnd

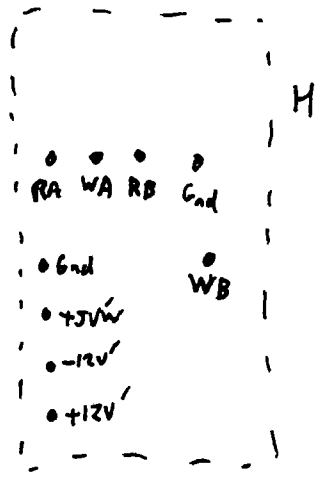
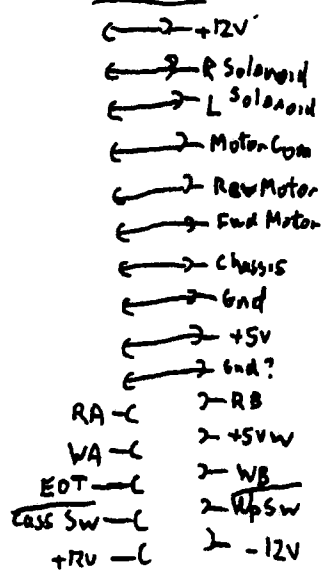
04865-66564

TP

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

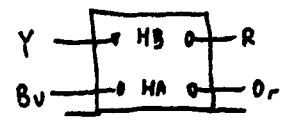
HP9830 Main Backplane

Tape Drive



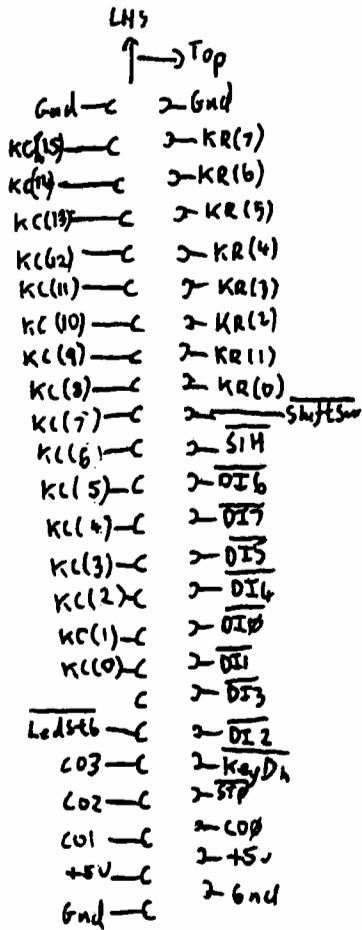
09830-66565

Head Connections

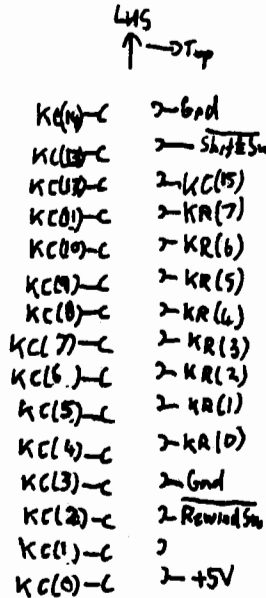




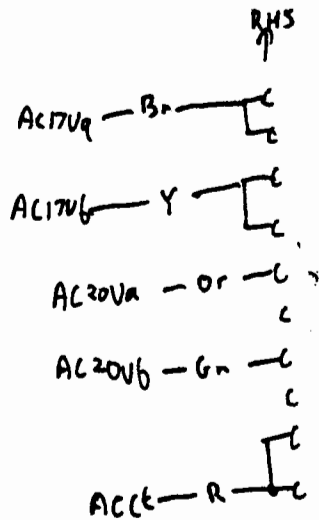
# HP4830 Keyboard



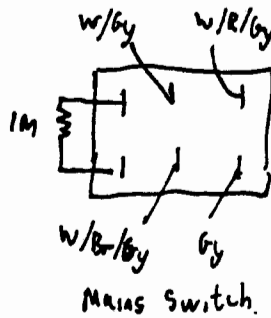
09830-66532  
encoder



09830-66531  
Keyboard

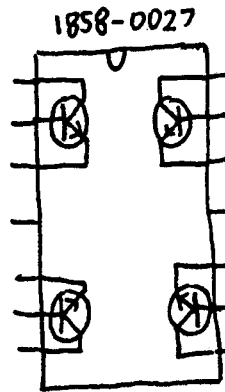
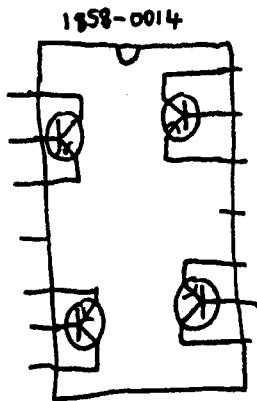
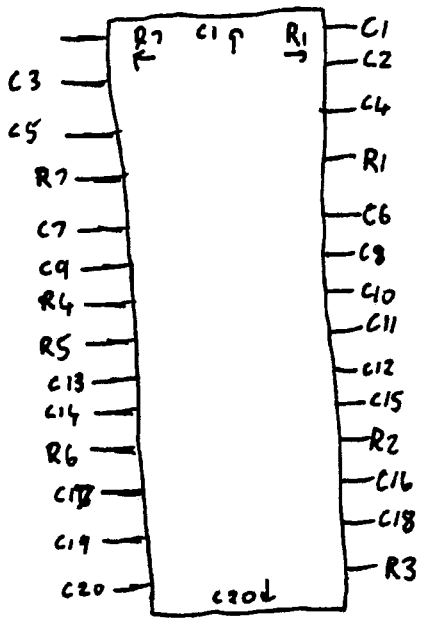


Transformer Connector



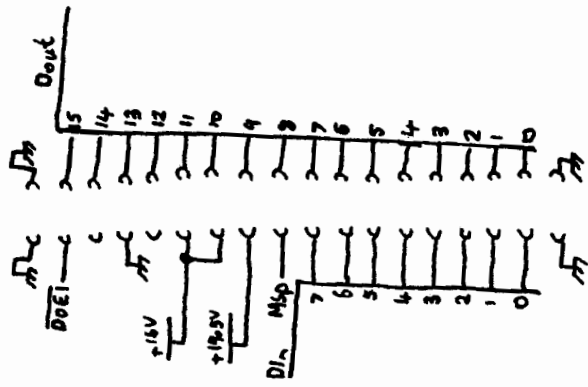
HP9830 Display

LHS  
↑  
→ Top

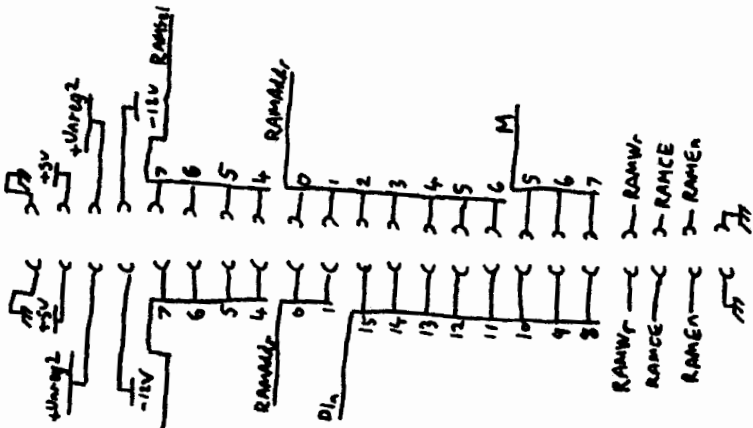




RHS  
Rear

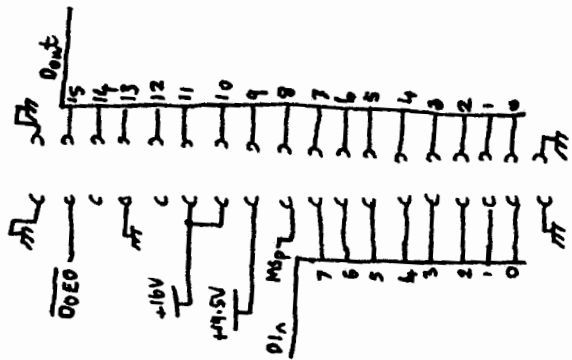


(LH Connector)

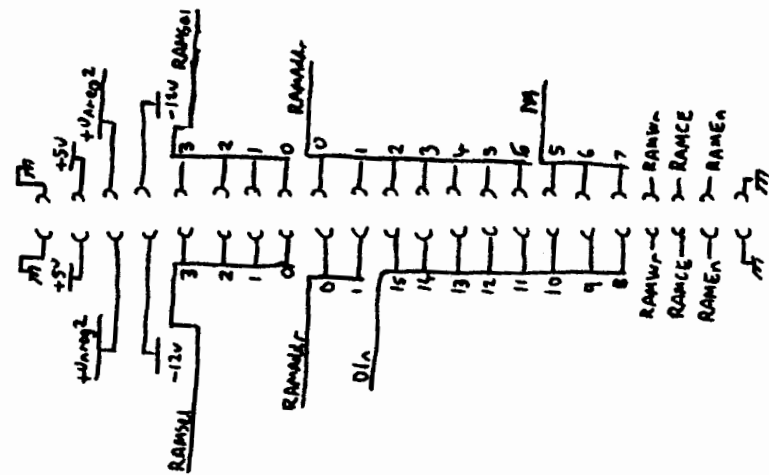


(RH Connector)

Front (1) RAM



(LH Connector)

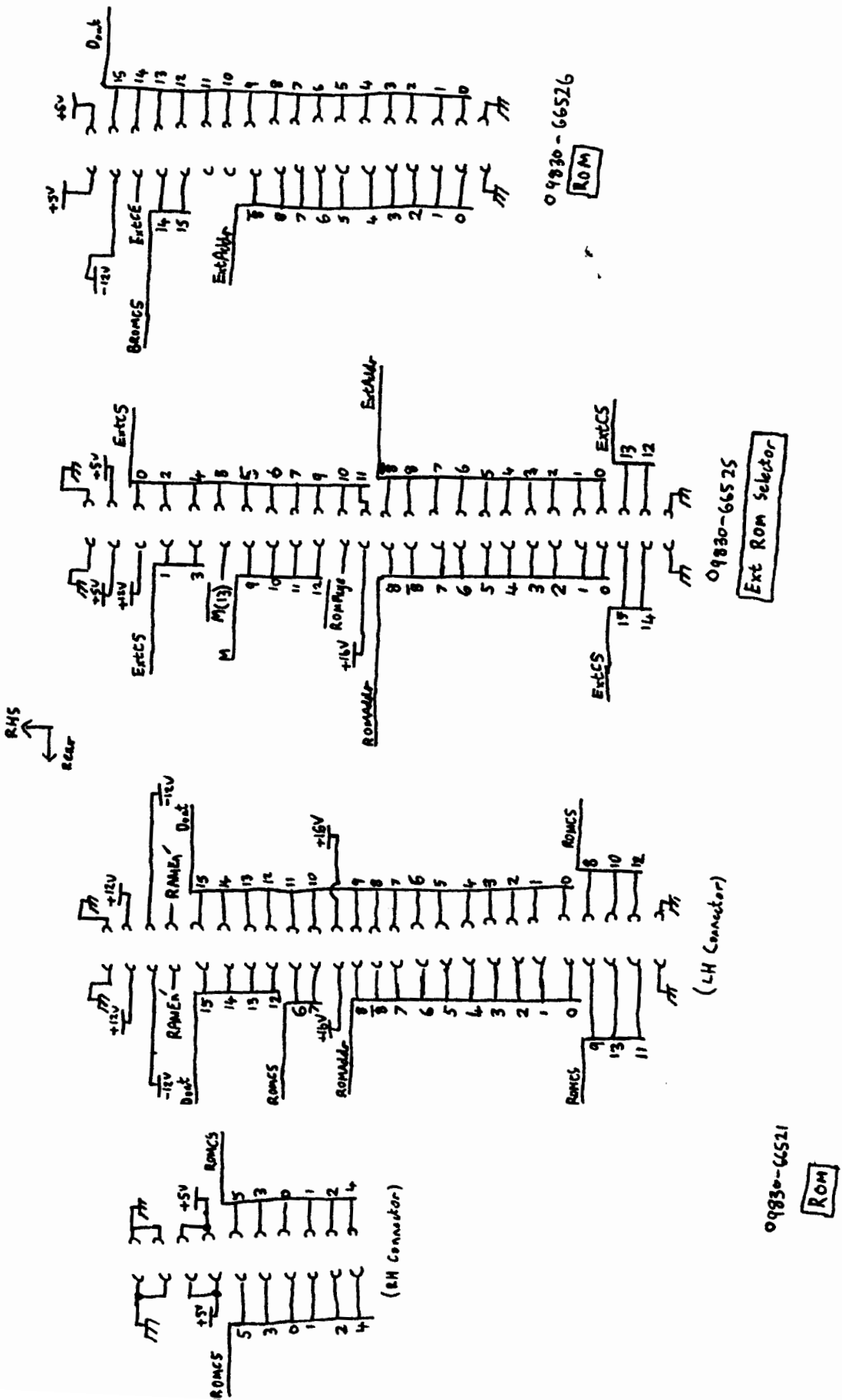


(RH Connector)

09830-66584

Rear (0) RAM





HP9830 Main Backplane Slot 6 09830-66501

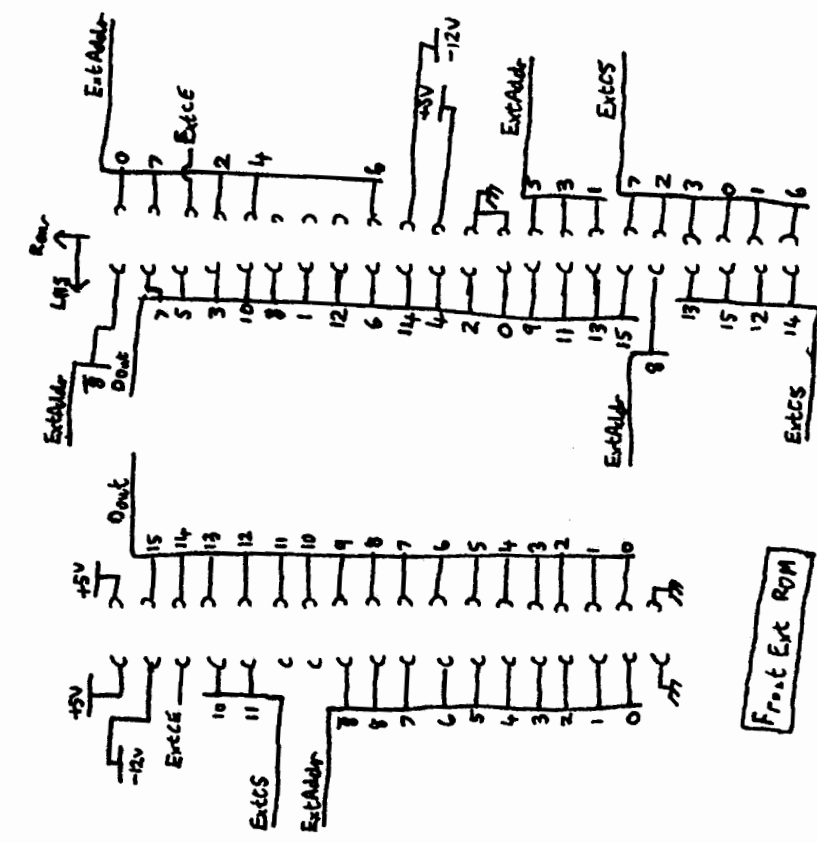
09830-66521  
ROM

(LH Connector)

09830-66525  
Ext ROM Selector

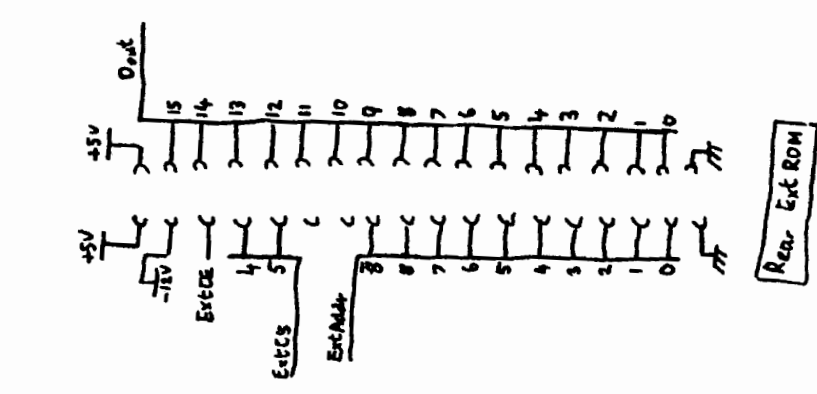
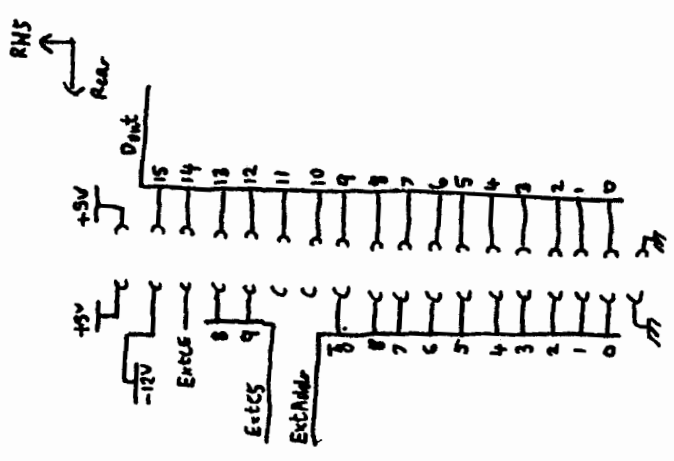
09830-66526  
ROM

RHS  
Rear

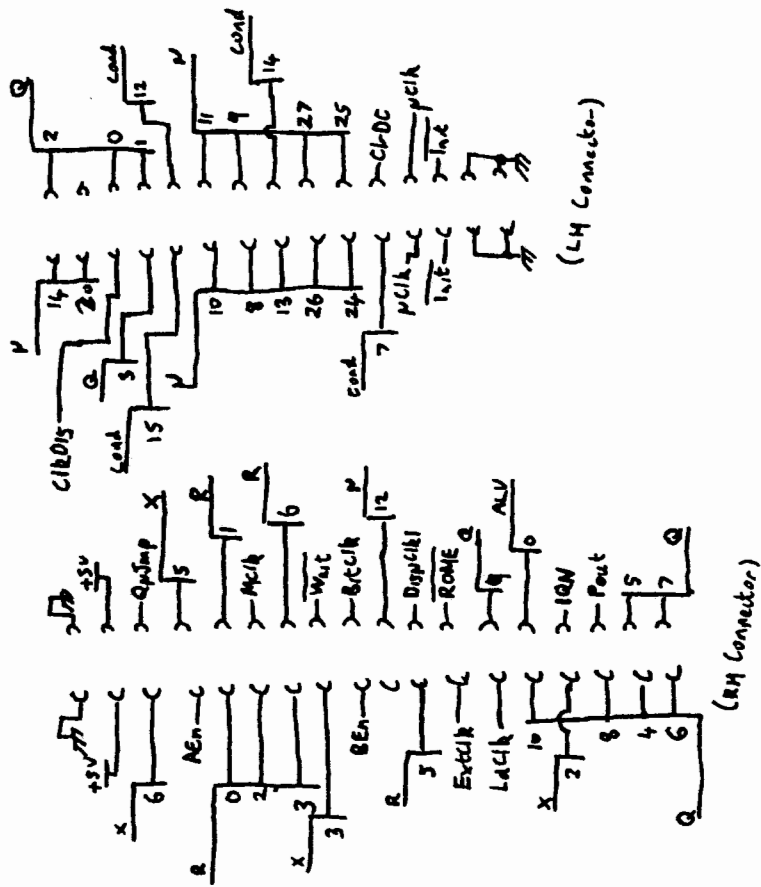


09830-66503

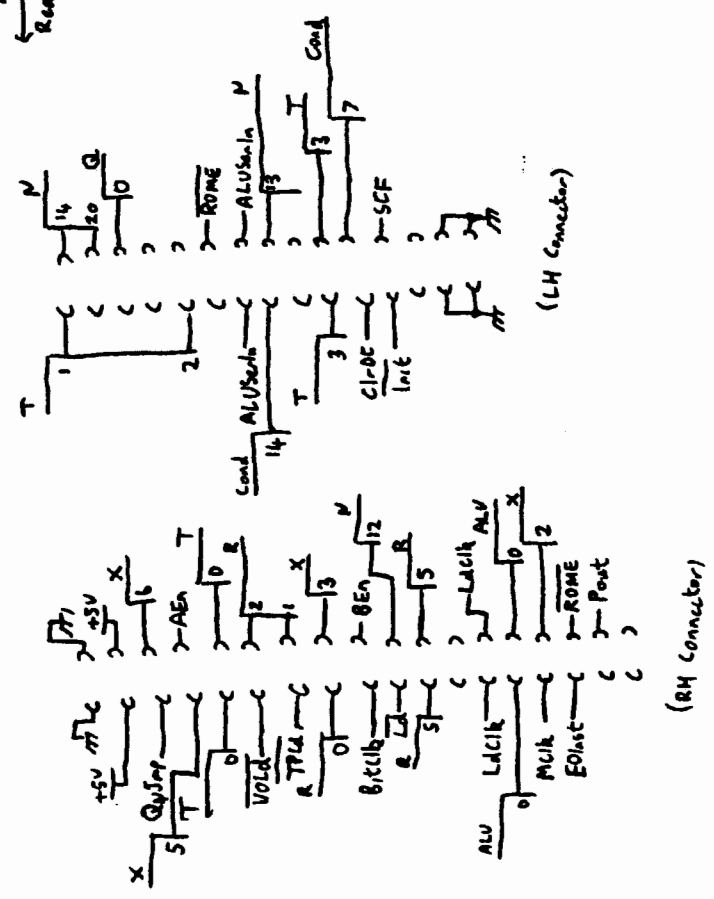
ROM Backplane



RHS  
Rear

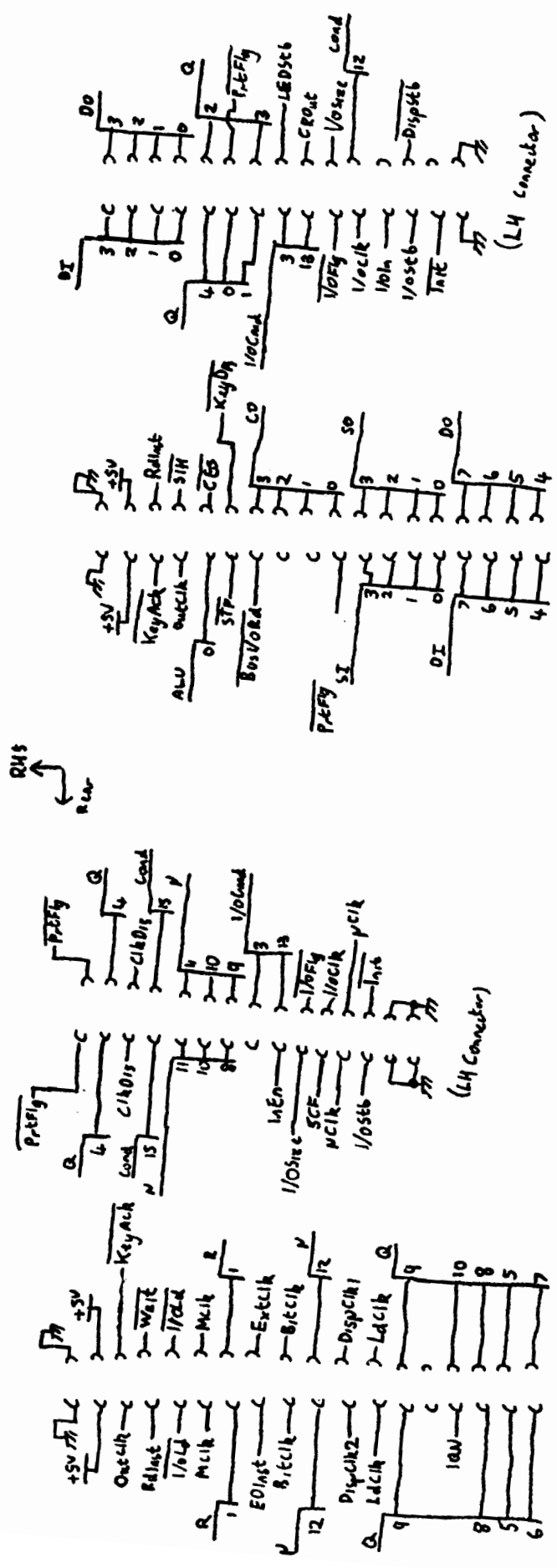


09810-66513  
CPU Control



09810-66514  
CPU Data Path





(RH Connector)

(LH Connector)

(LH Connector)

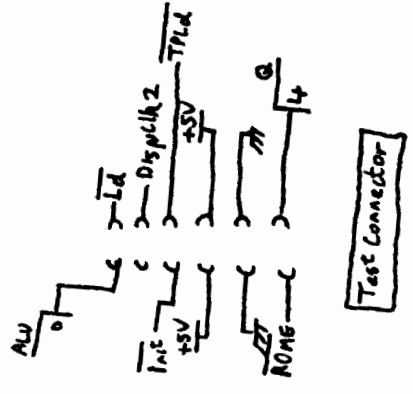
(RH Connector)

09810-66512

Clock

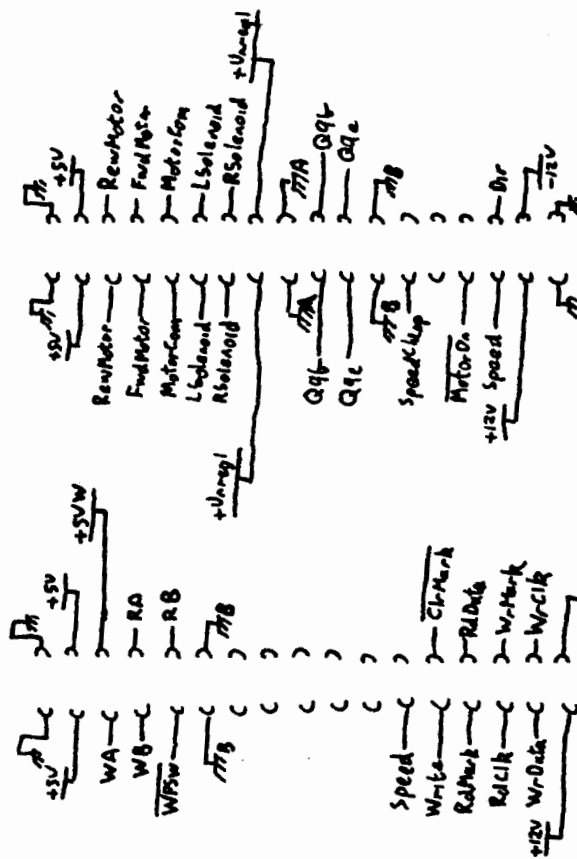
09810-66511

I/O Interface



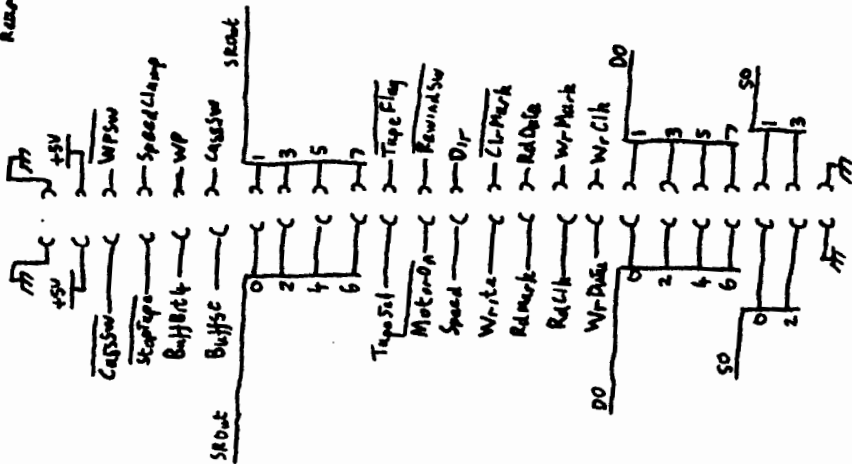
Test Connector

RHS  
← Rear



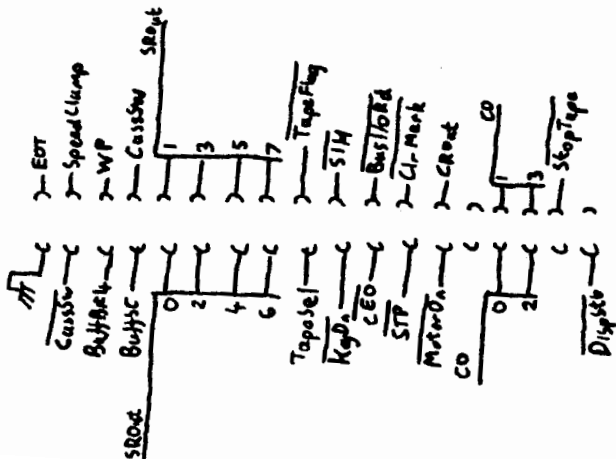
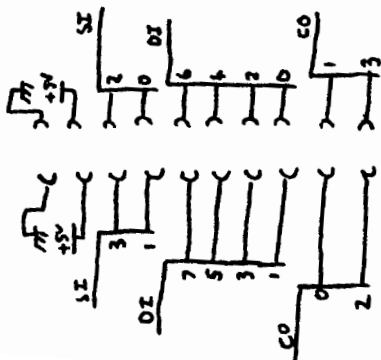
09865-66564

Micro Controller



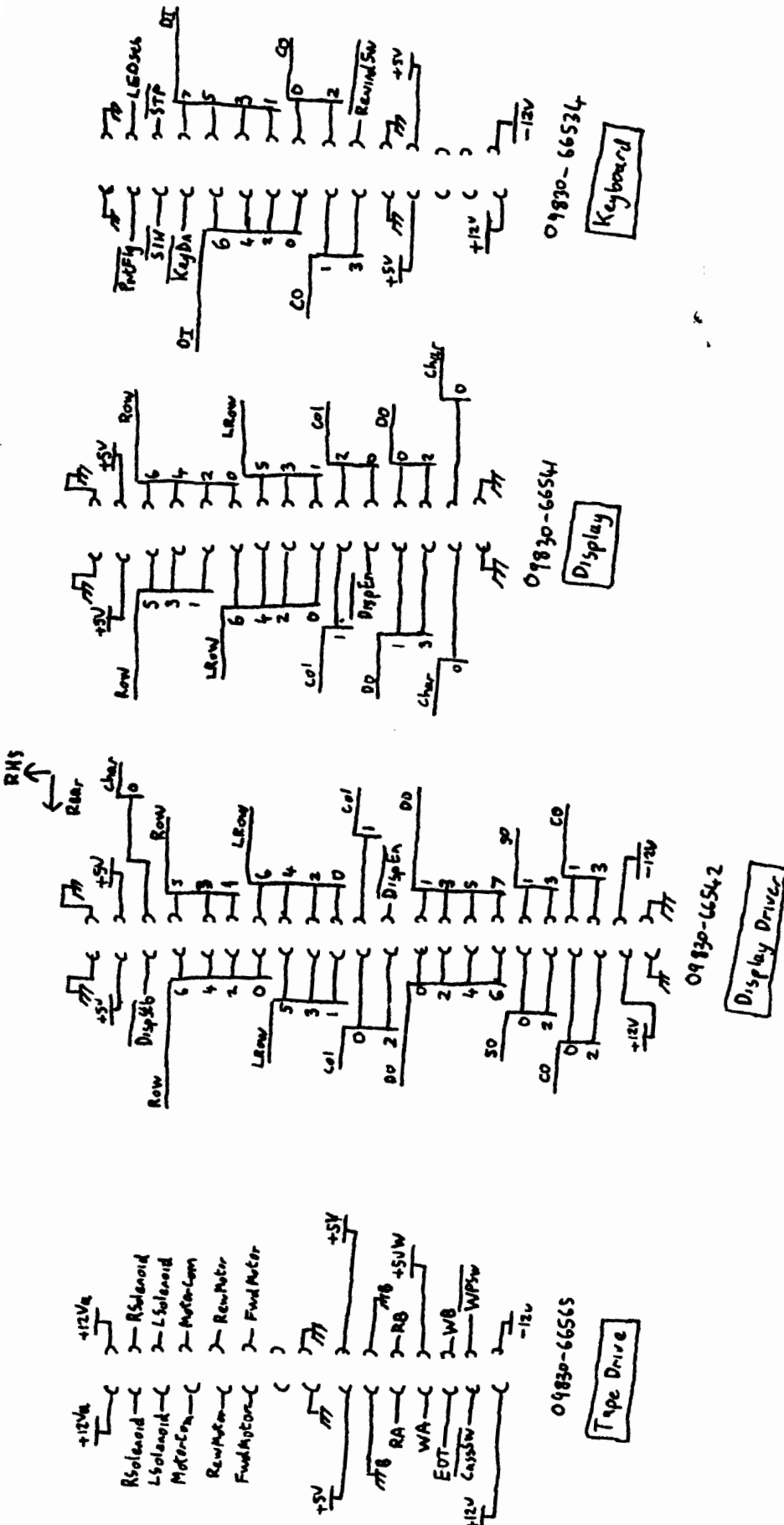
09865-66562

Tape Controller



09830-66561

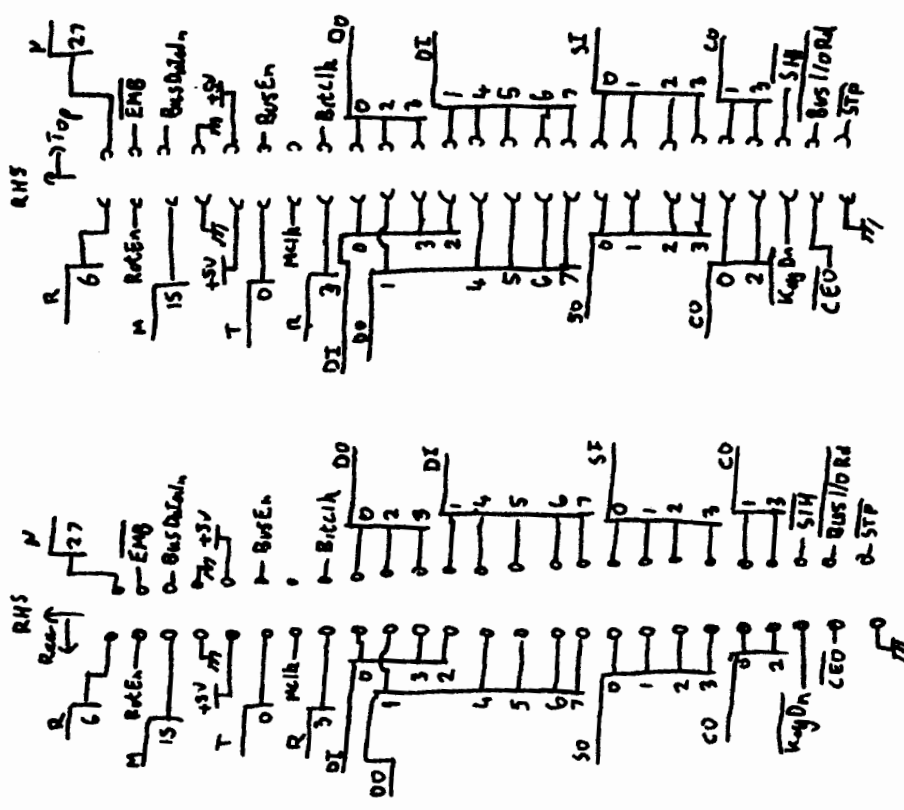
Tape Interface



HP 9830 Main Backplane Strukt ①

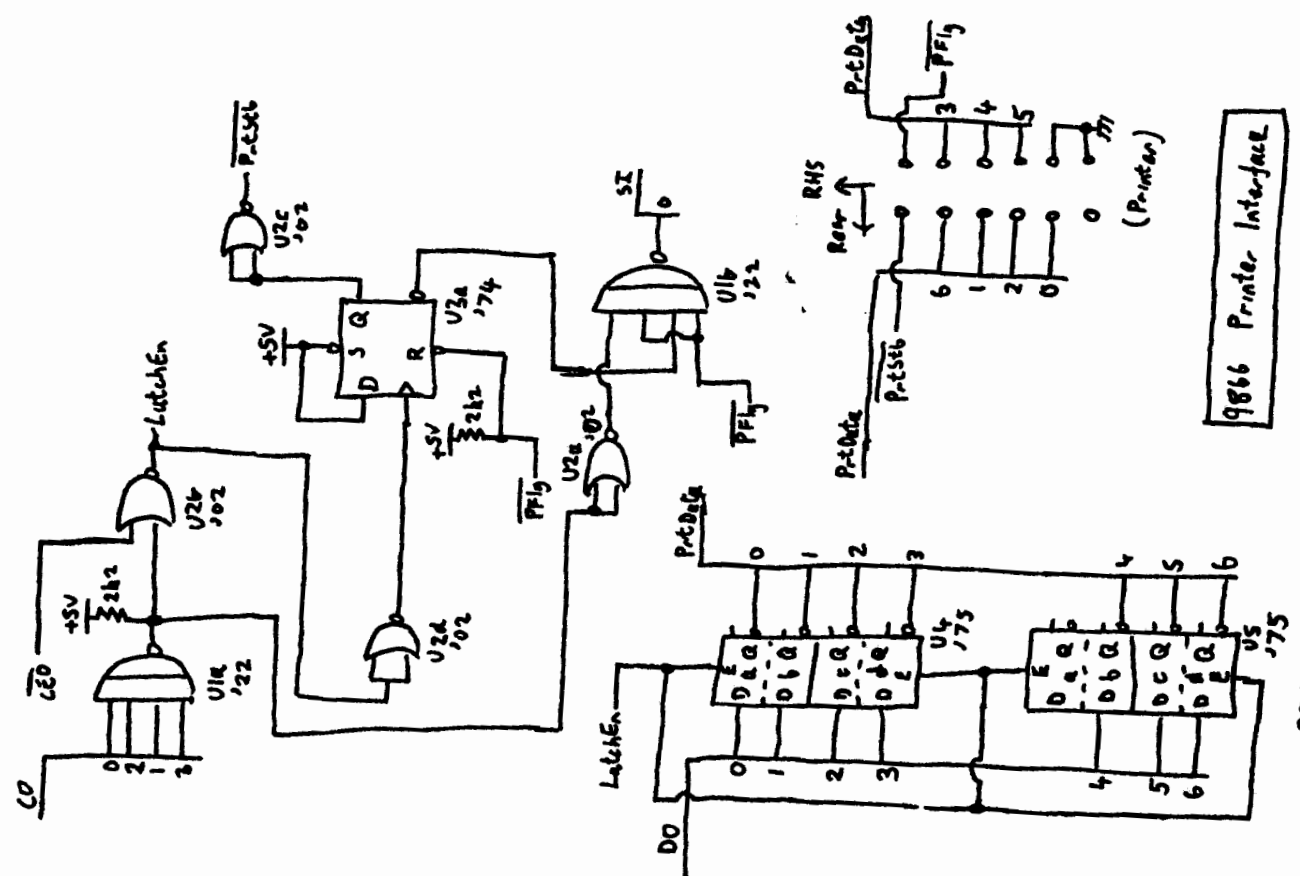
09830-66501

20



(Typical of 4)  
I/O Connector

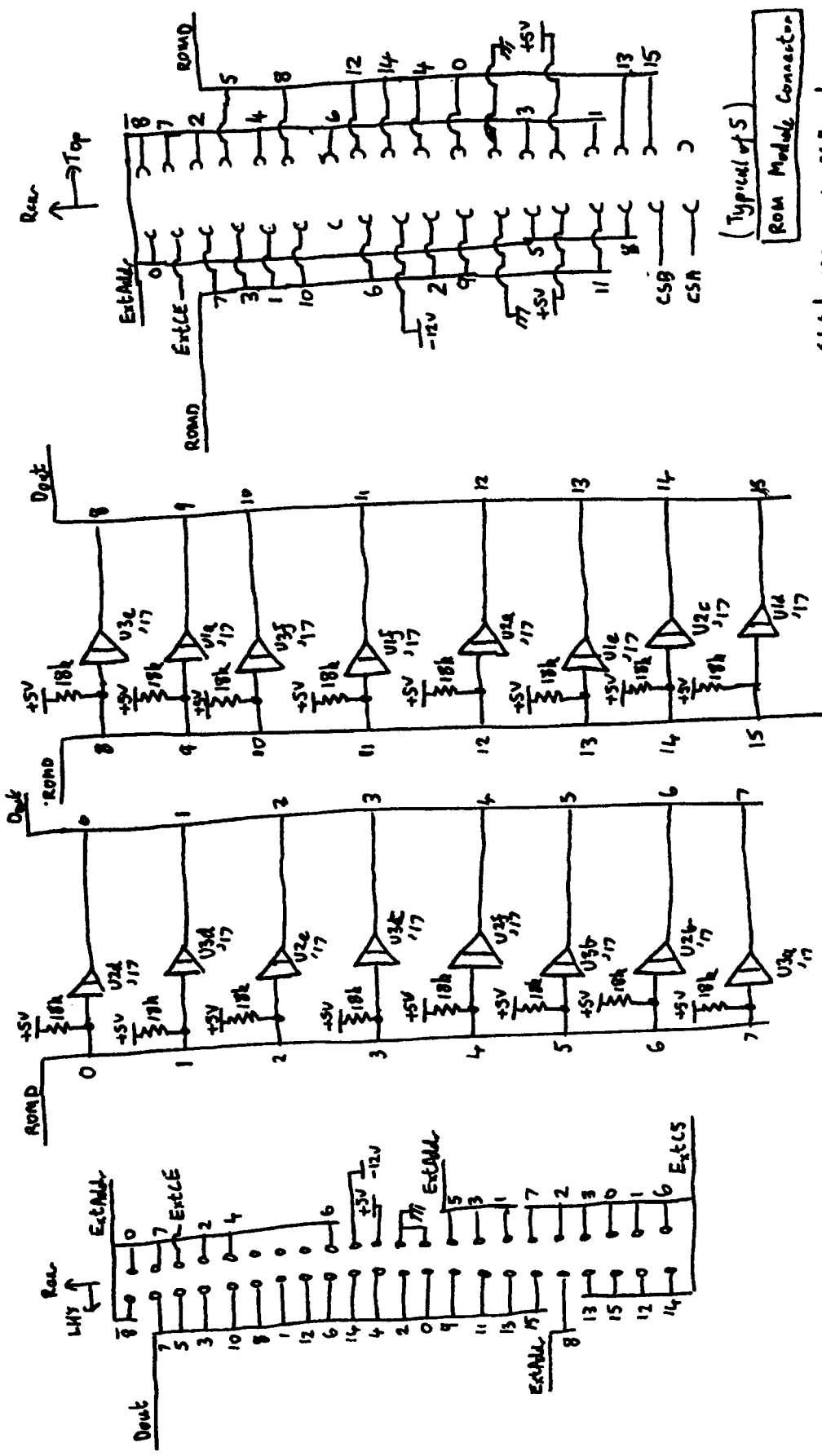
HP9830 I/O Backplane



9866 Printer Interface

09830-66502

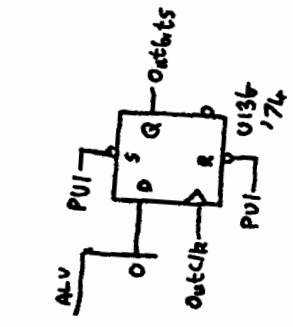
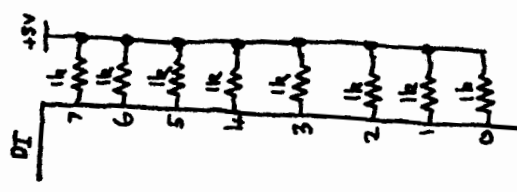
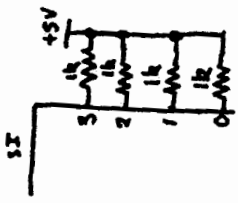
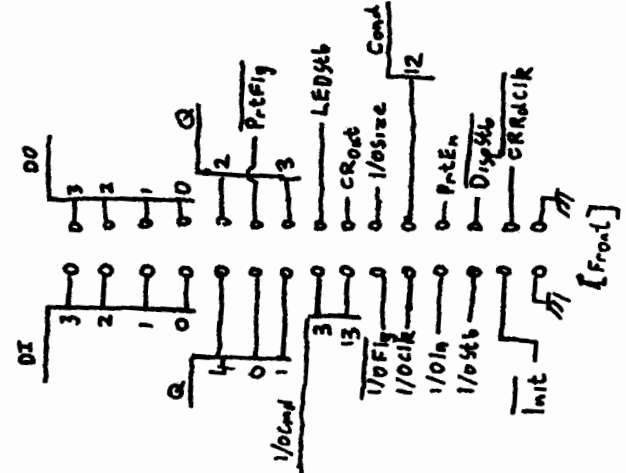
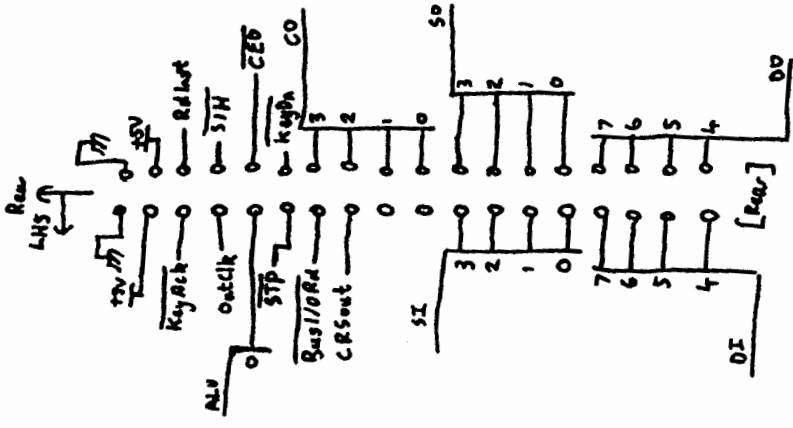
2



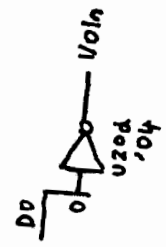
Data Buffers

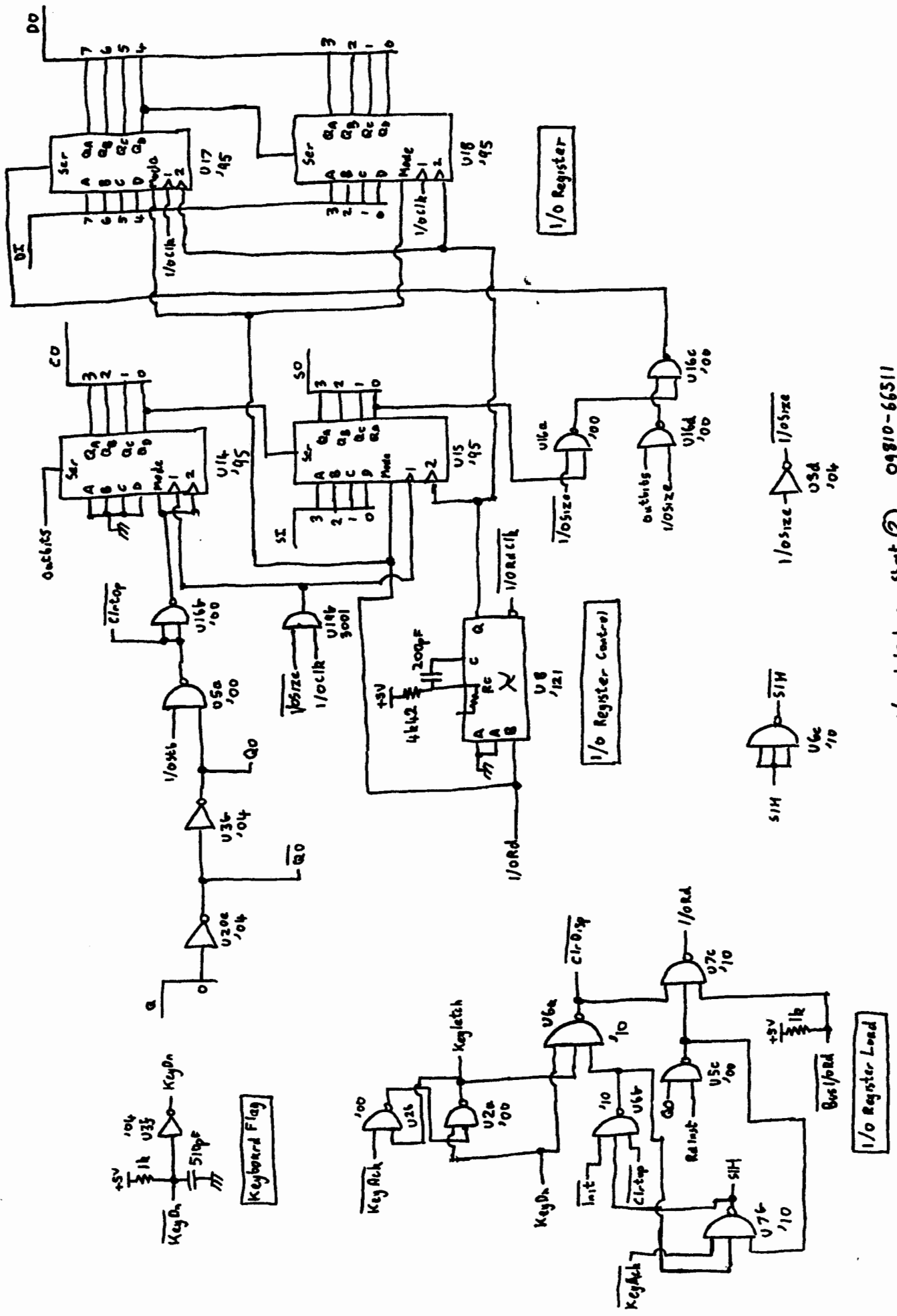
(Typical of 5)  
ROM Module Connector

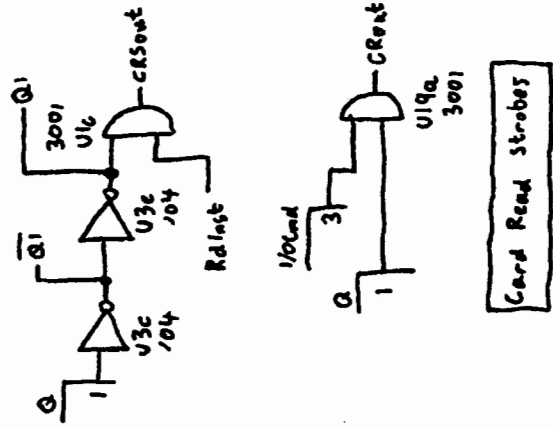
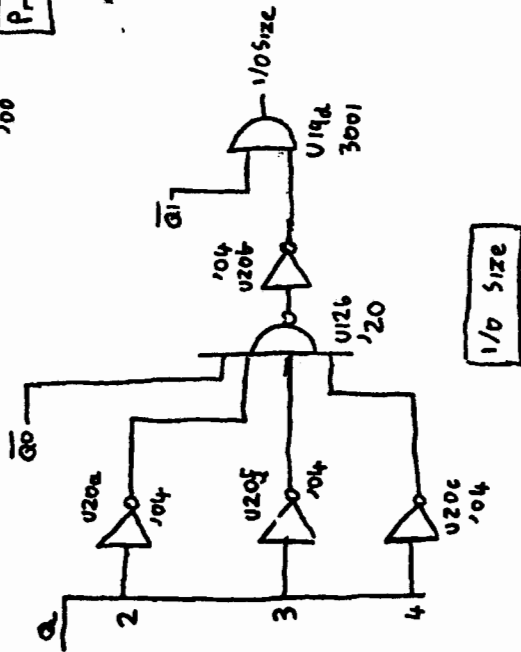
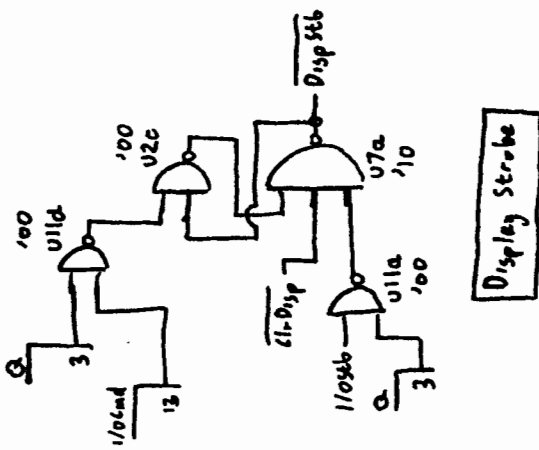
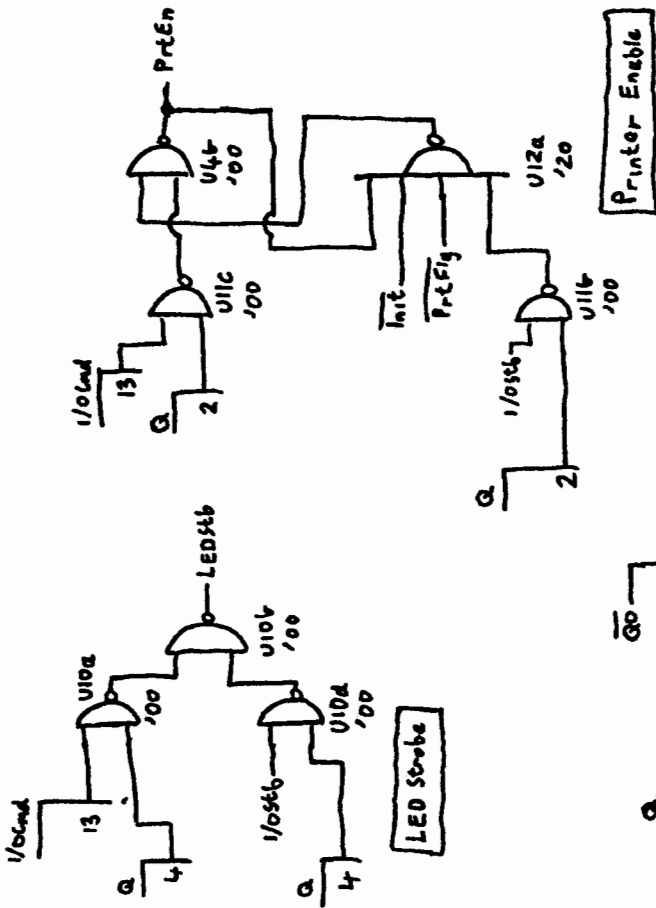
Slot	CSA	CSB
(Top) 1	ExtCS(14)	ExtCS(15)
2	ExtCS(12)	ExtCS(13)
3	ExtCS(0)	ExtCS(1)
4	ExtCS(2)	ExtCS(3)
5	ExtCS(6)	ExtCS(7)



Bus Pull Ups

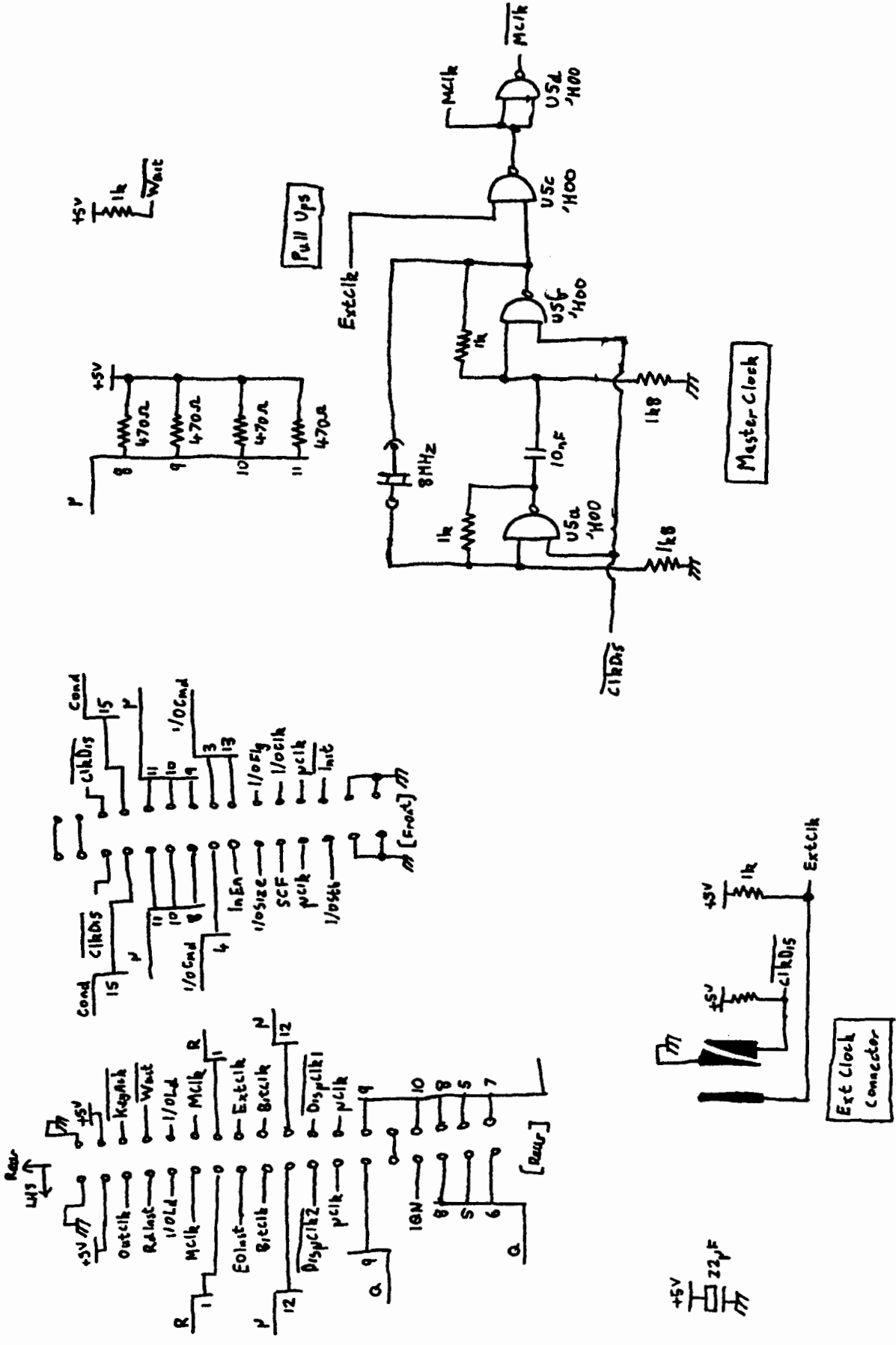


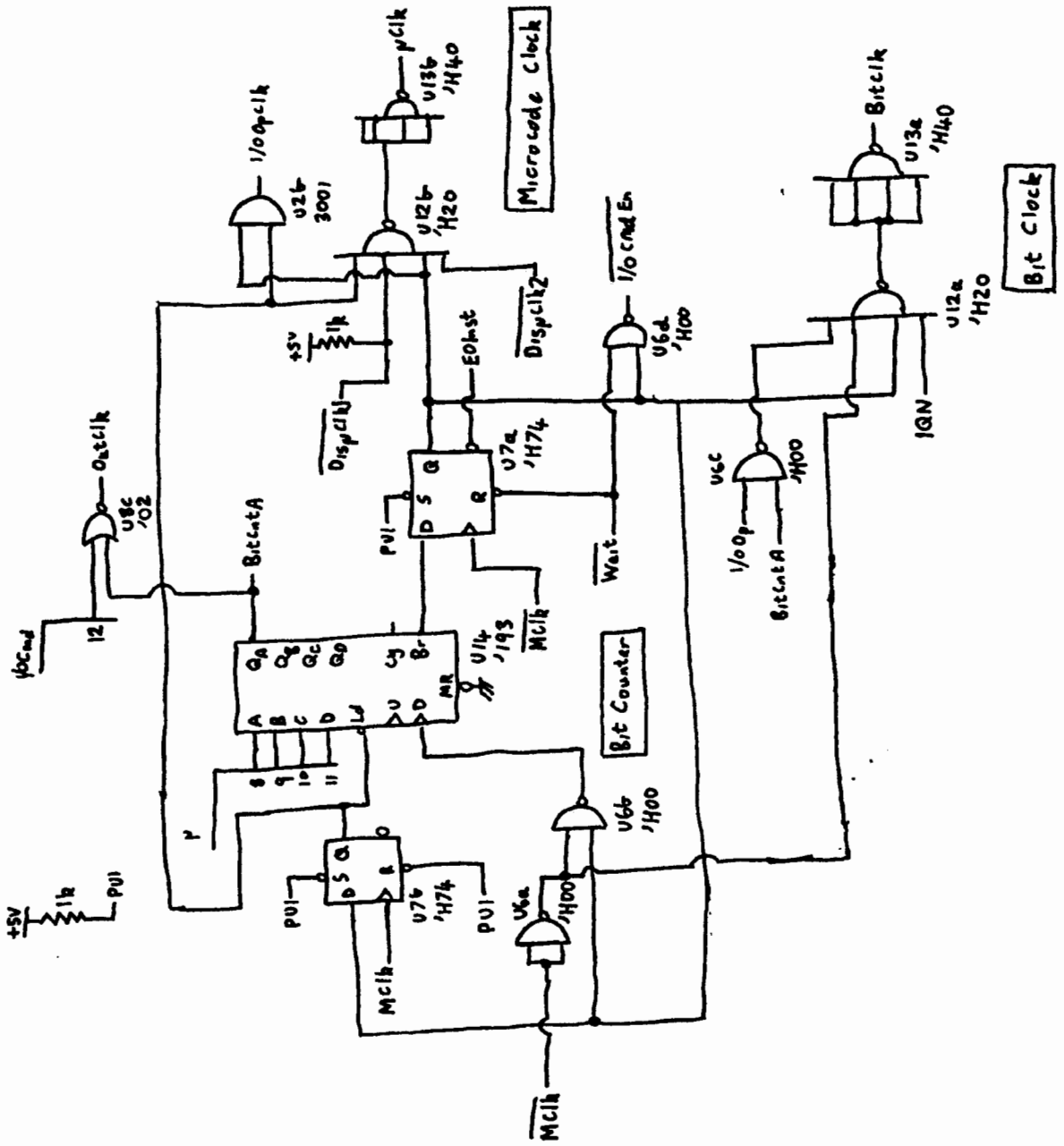


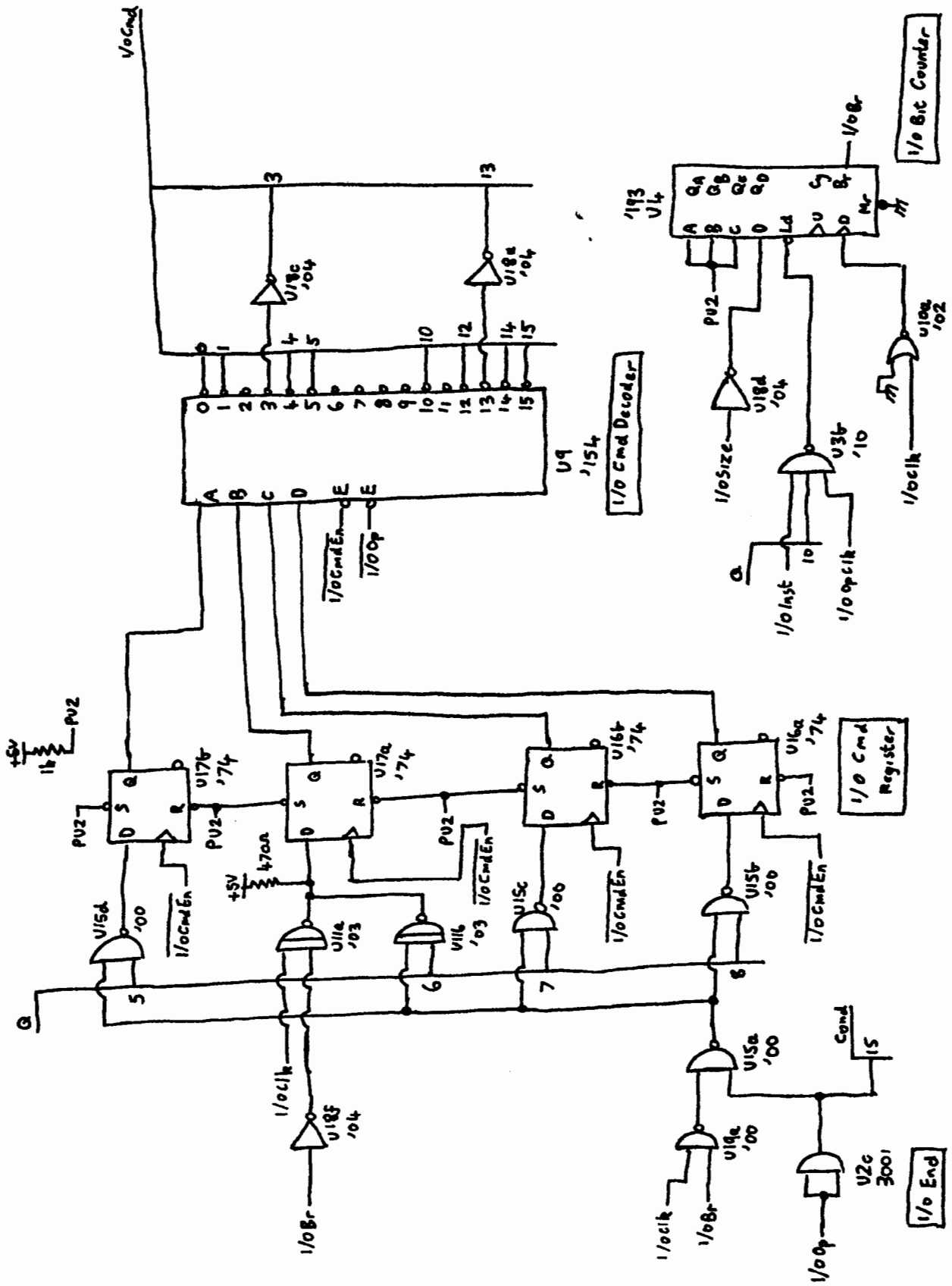






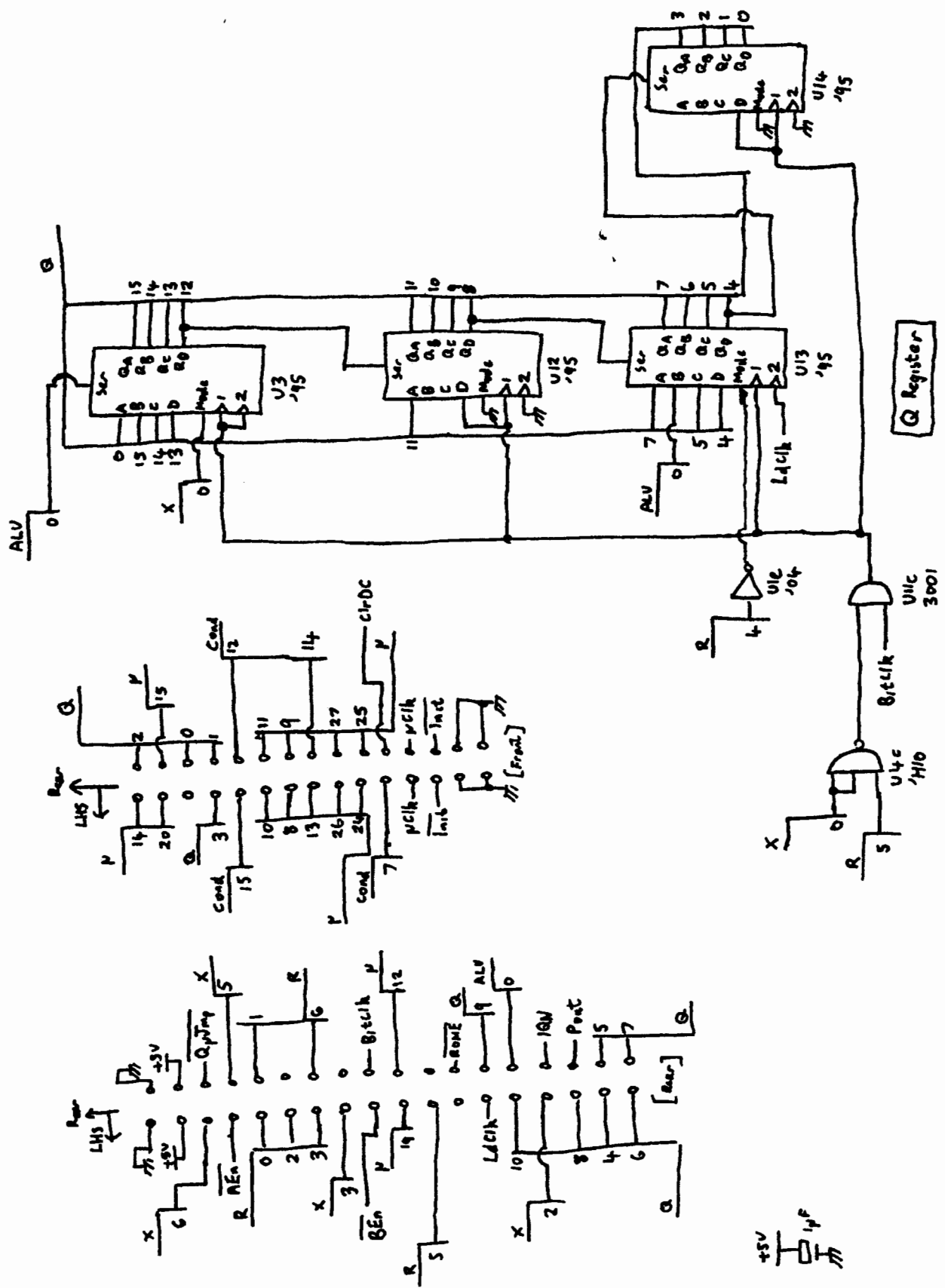


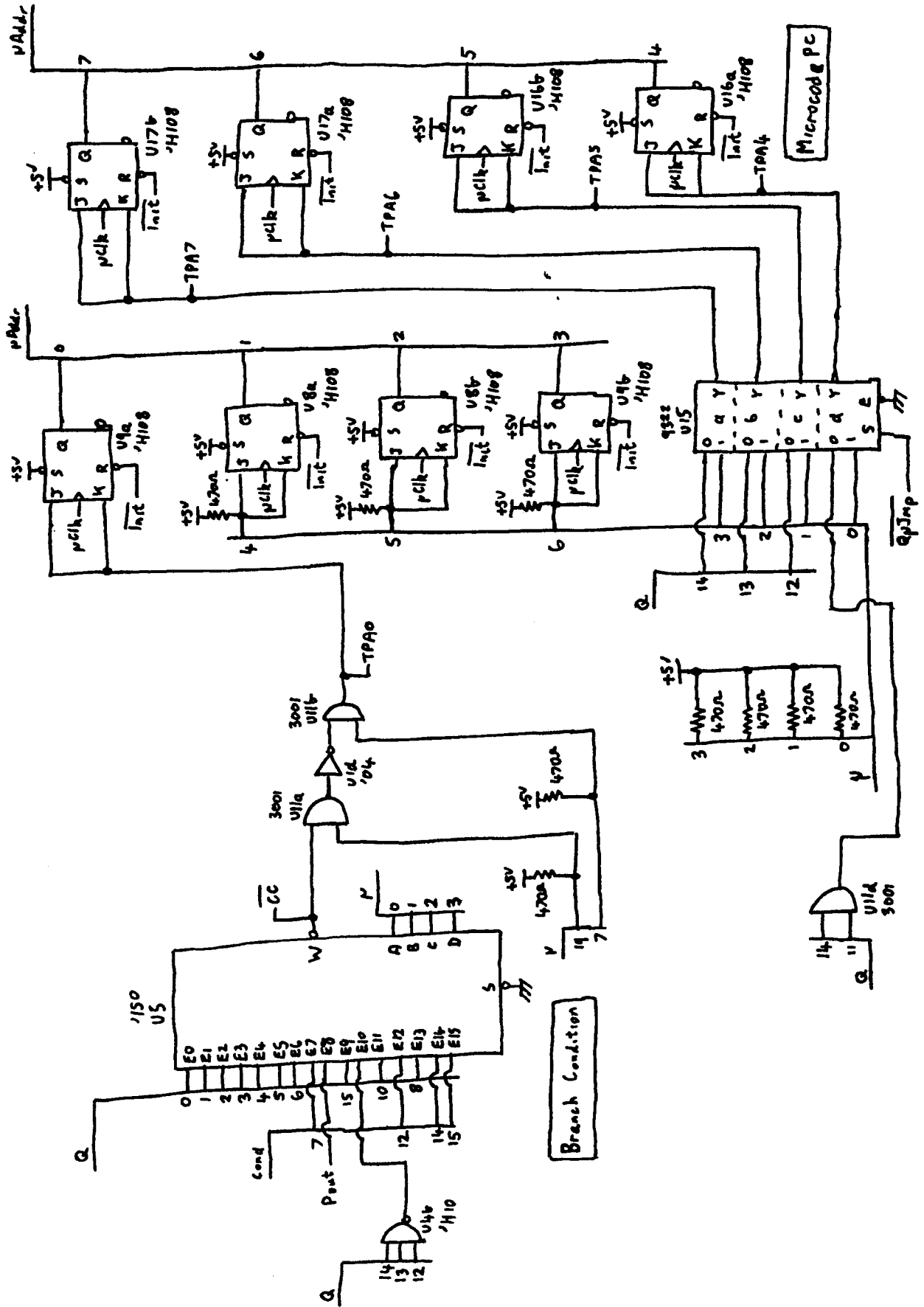


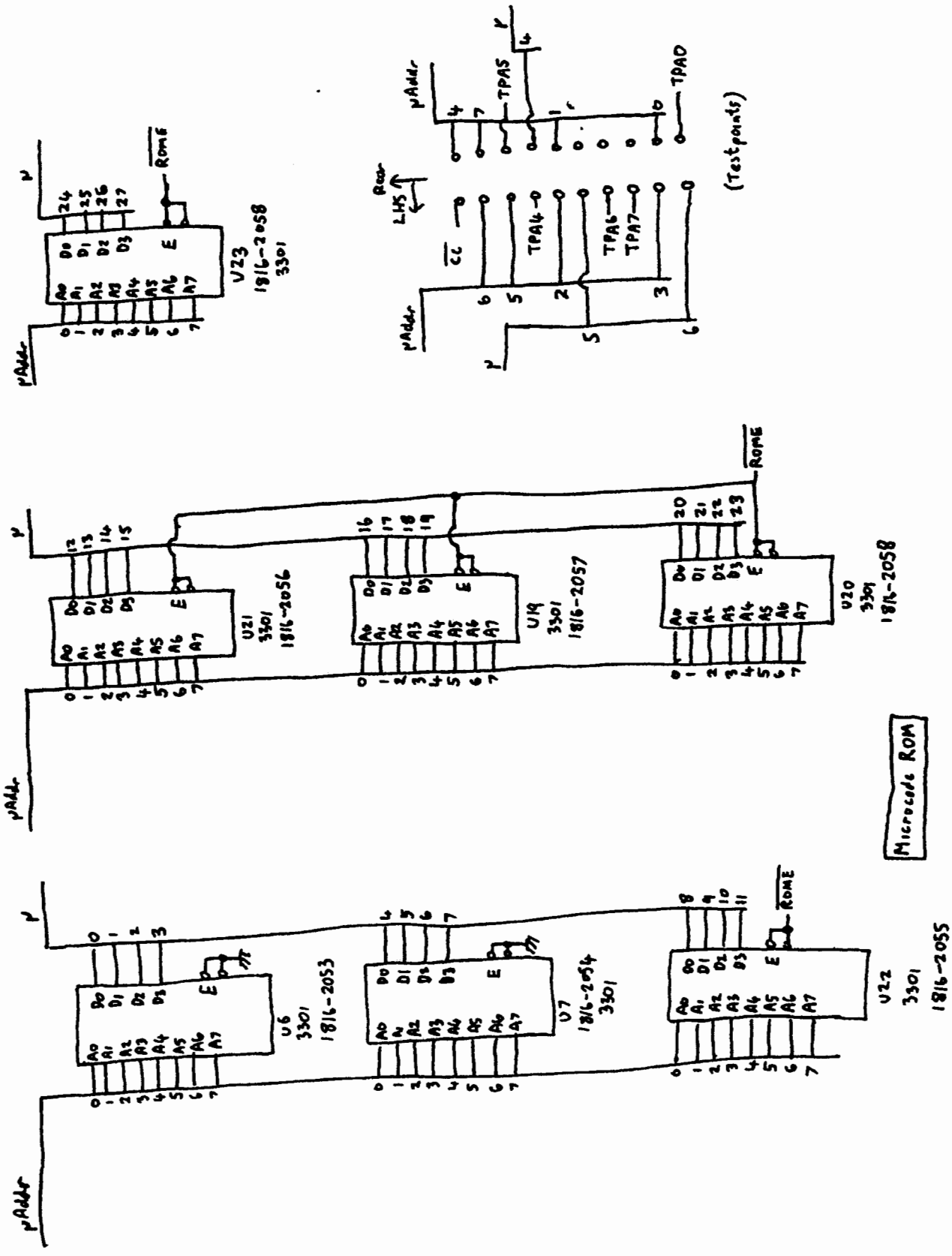




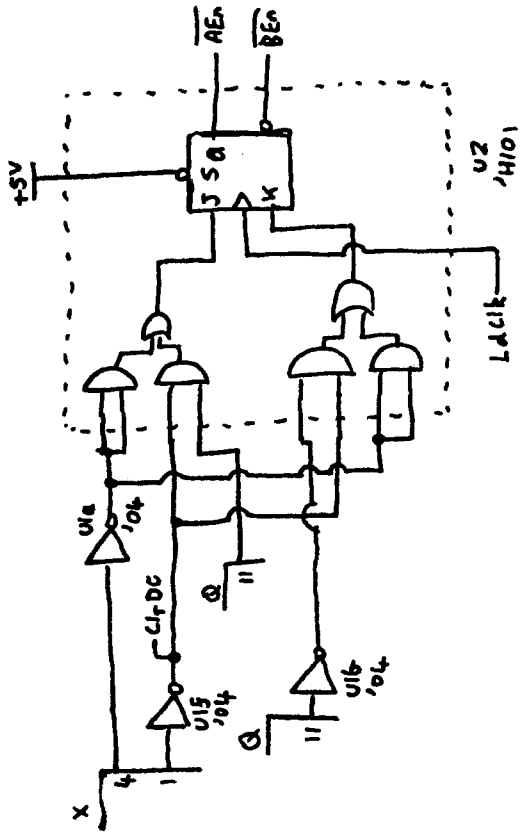
100



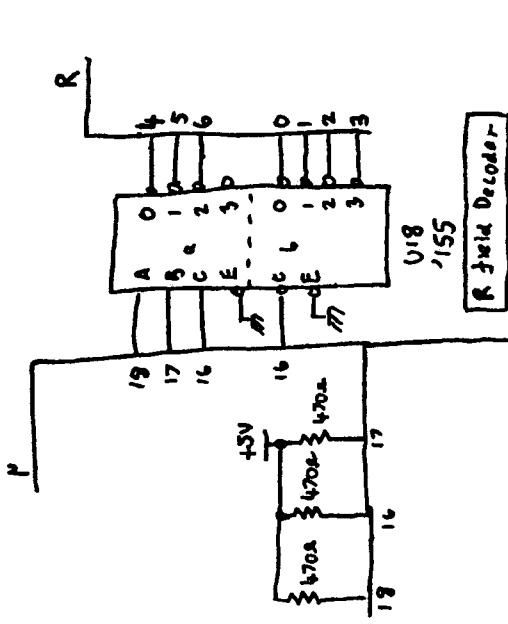
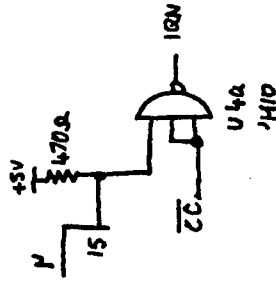




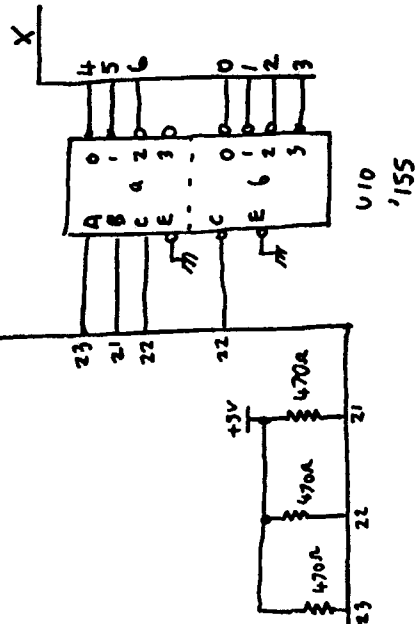




Register Select

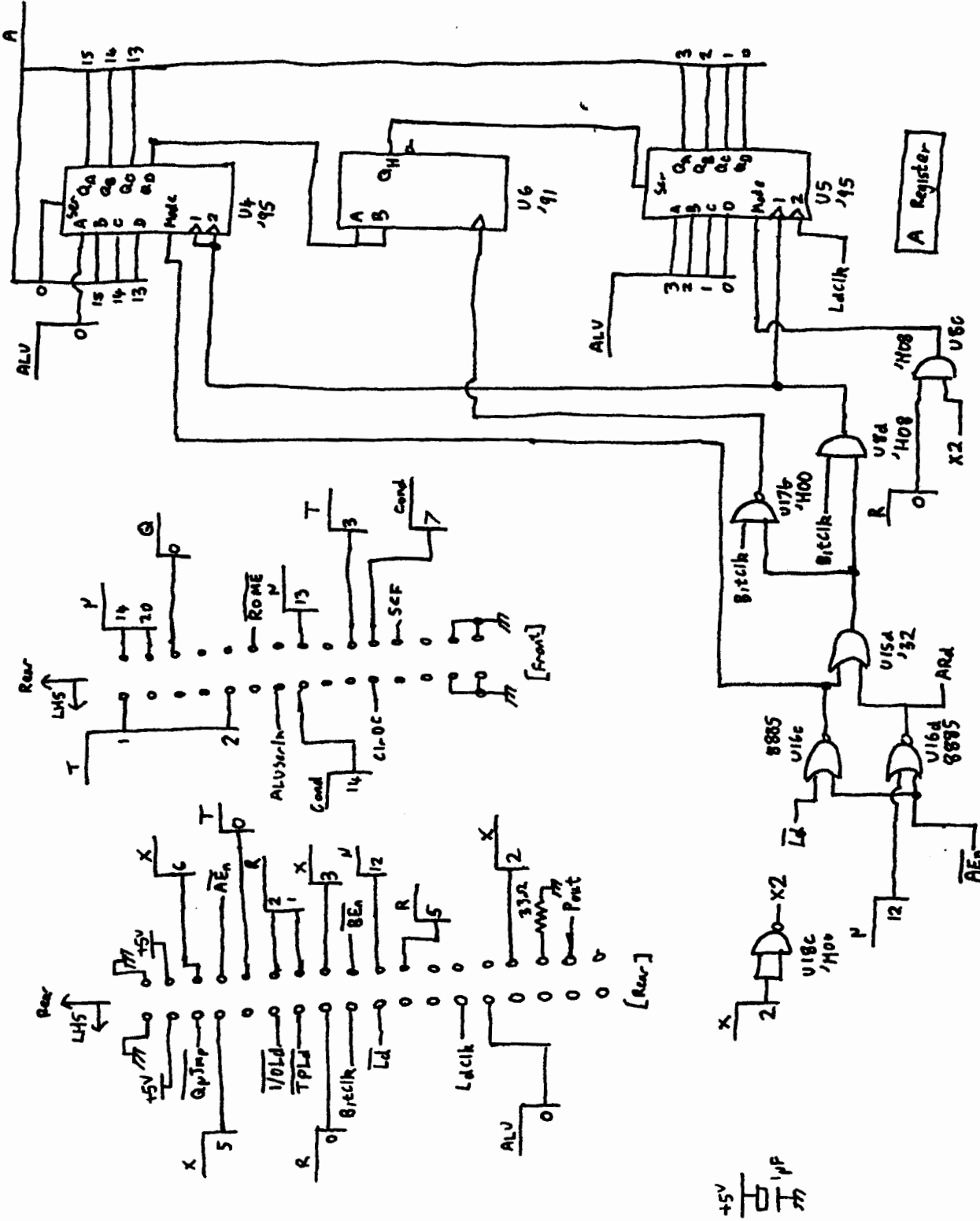


R Field Decoder

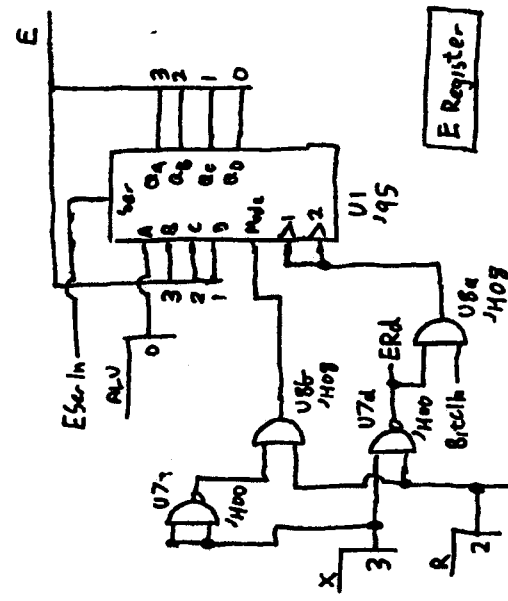


X Field Decoder

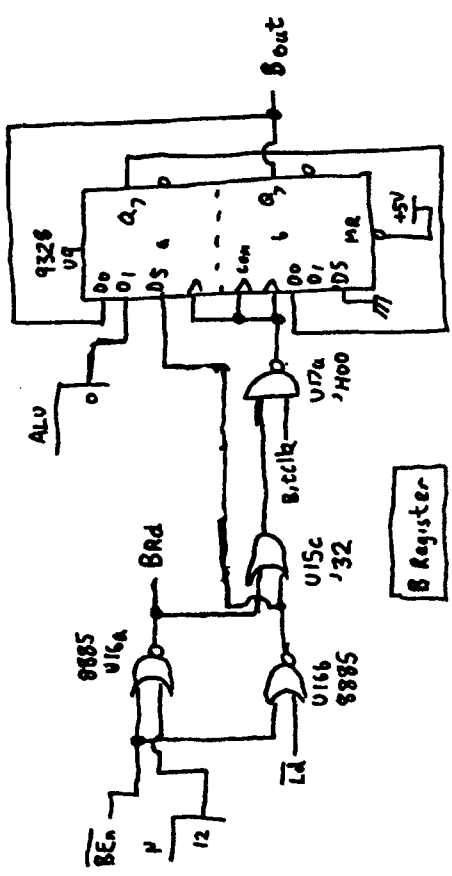
(14)



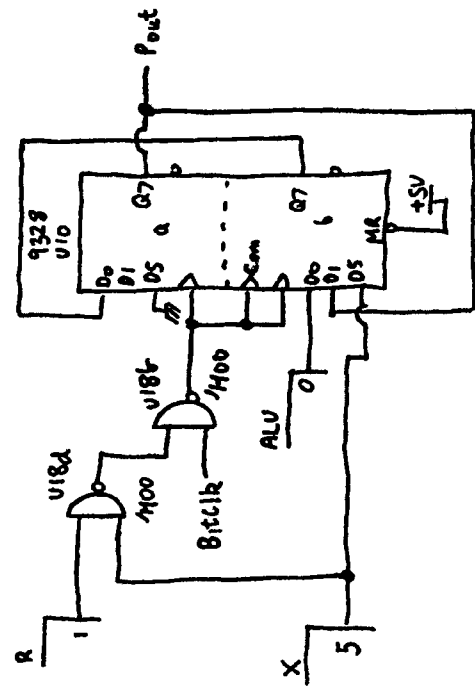
HP 9810 Data Path Sheet ① (B-/Y) 09810-665/4



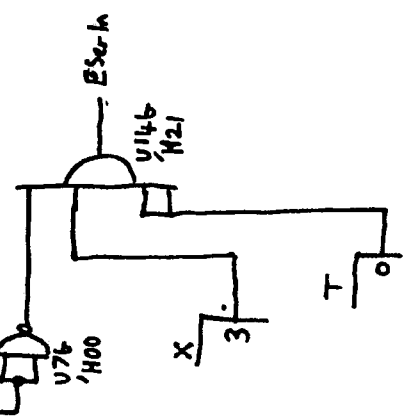
E Register

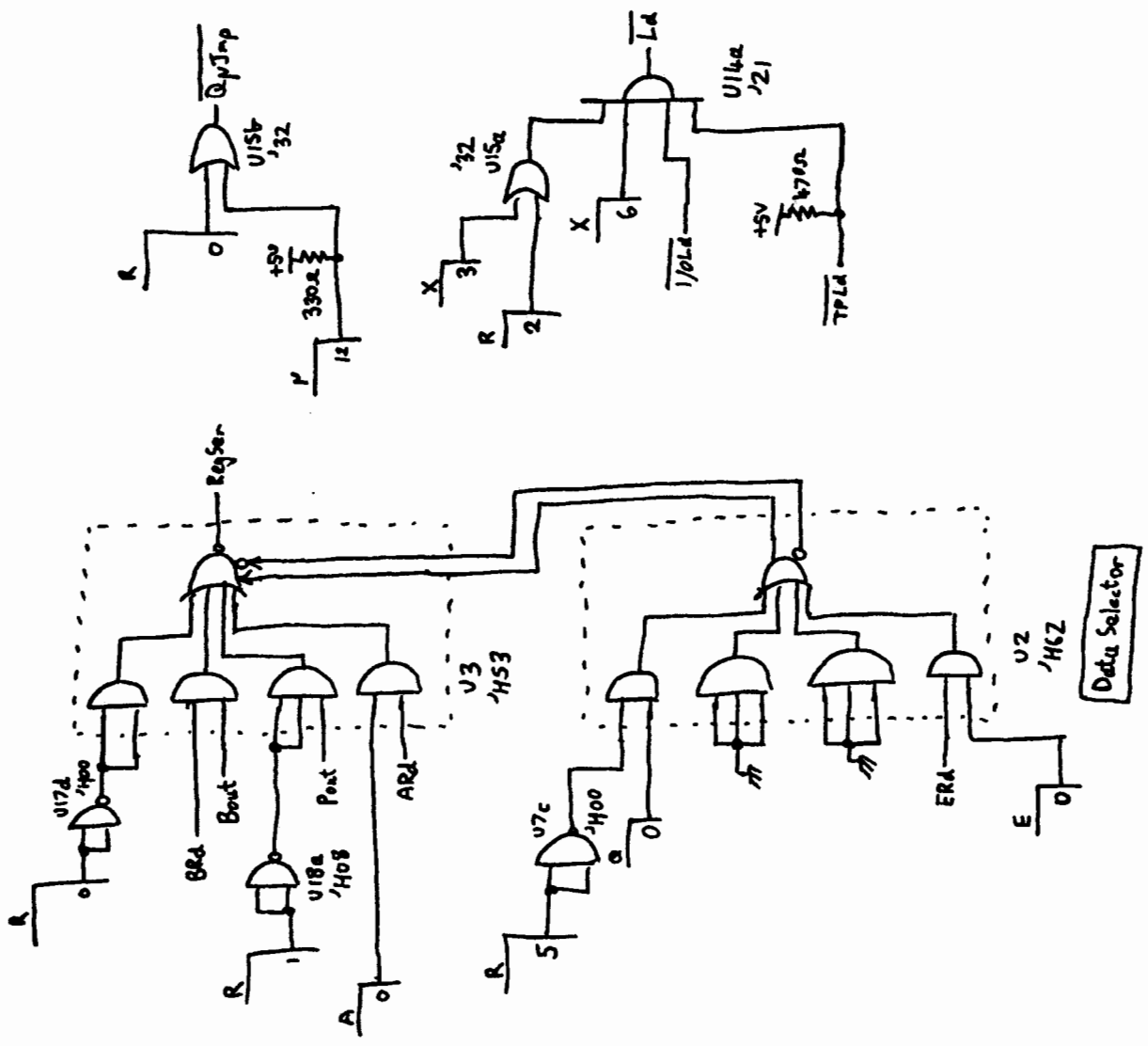


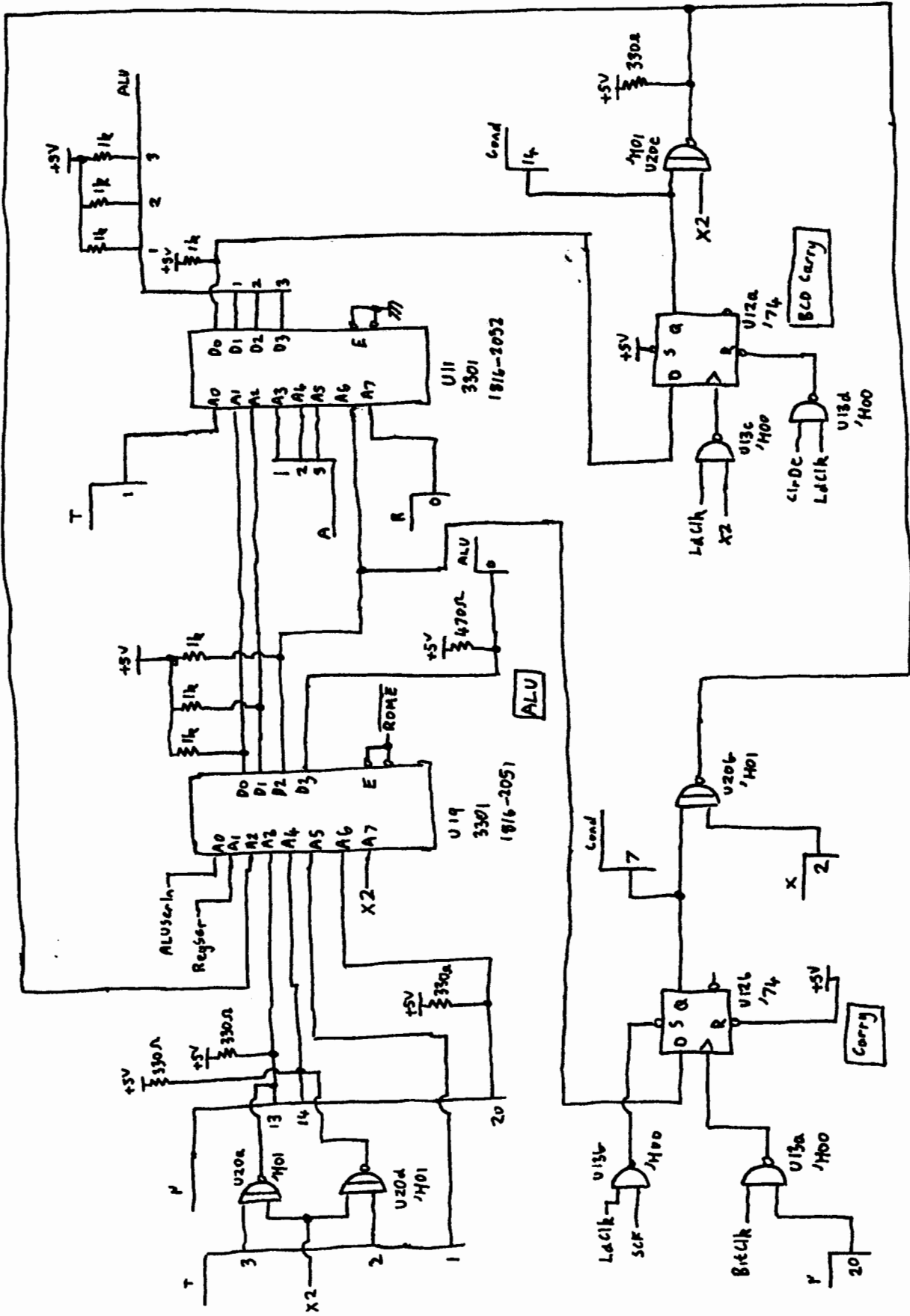
B Register



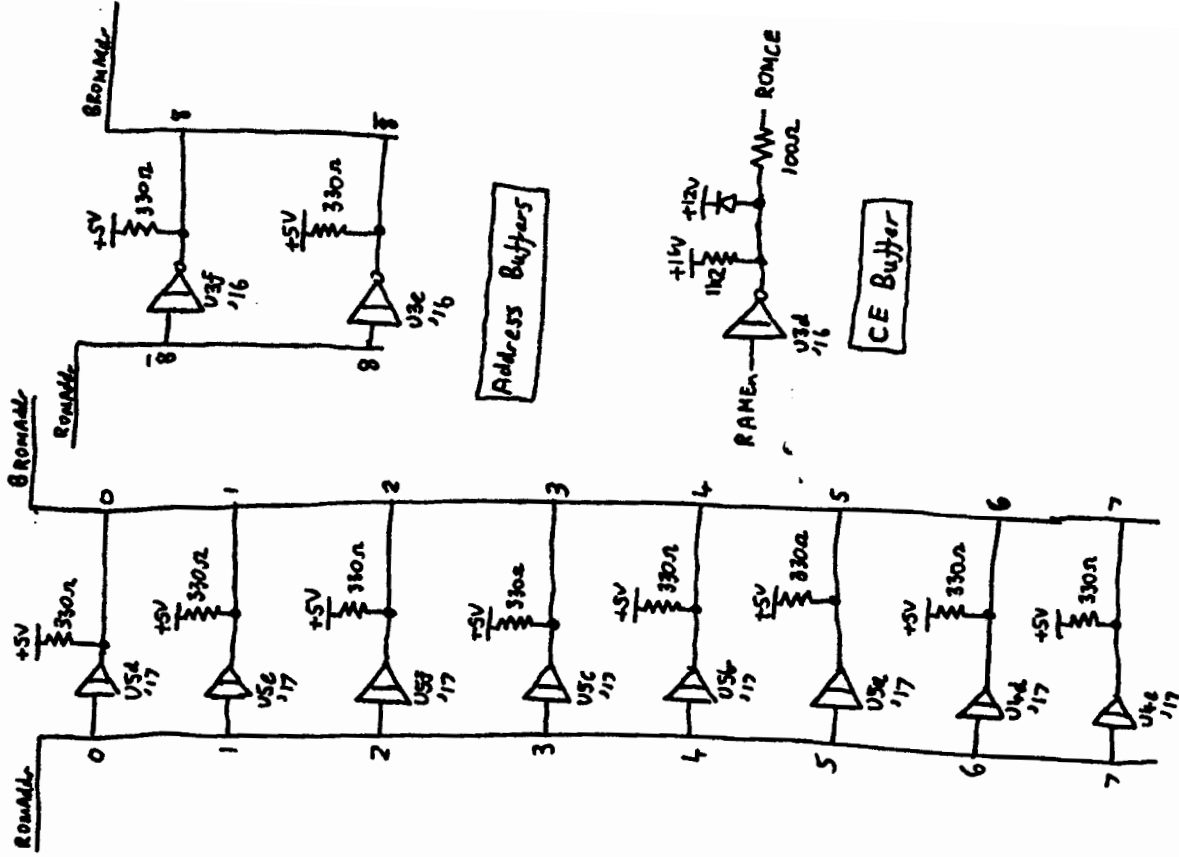
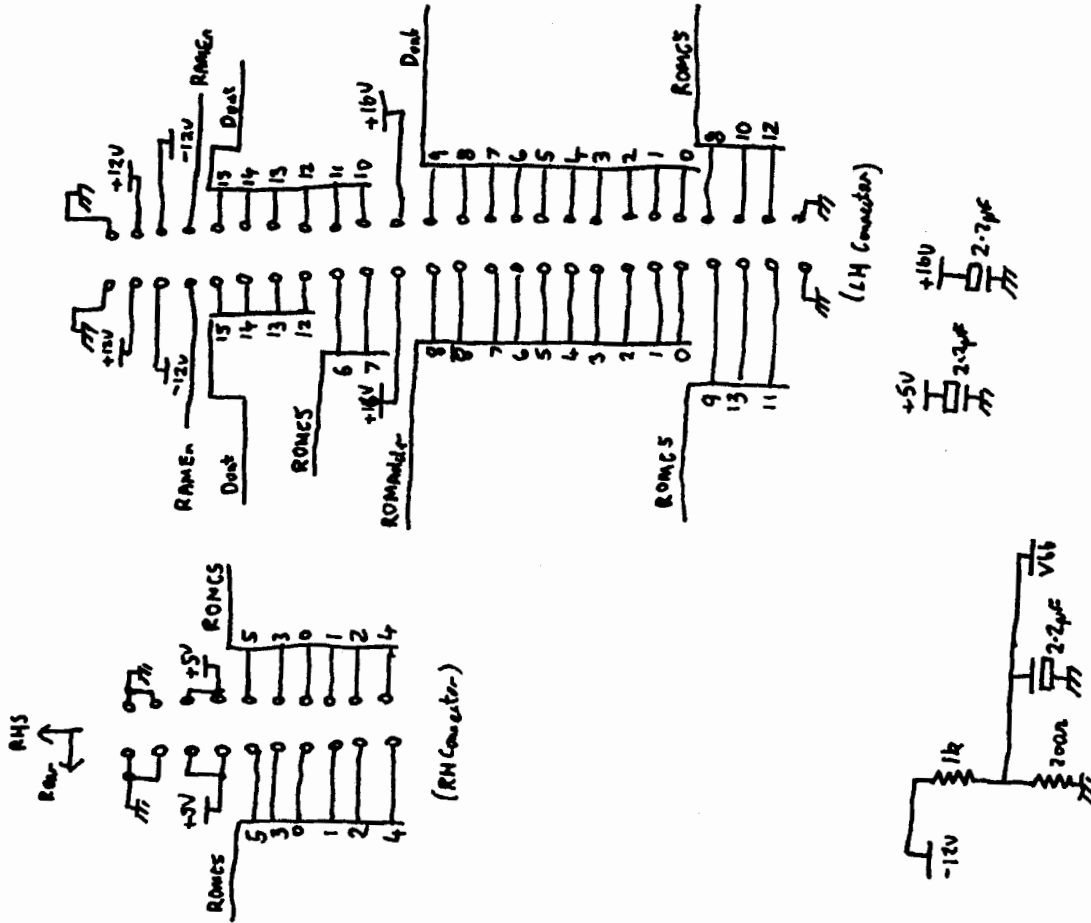
P Register

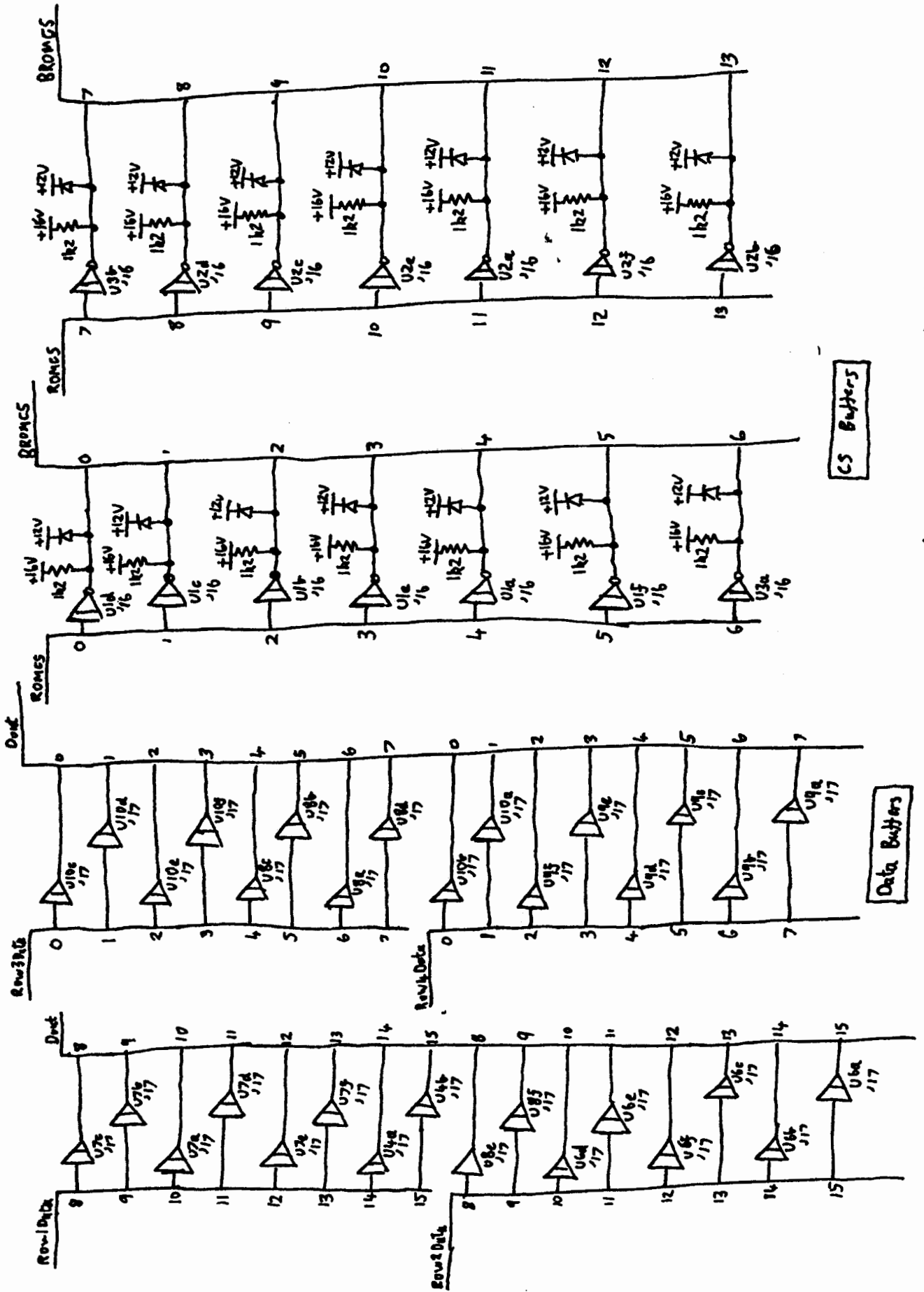






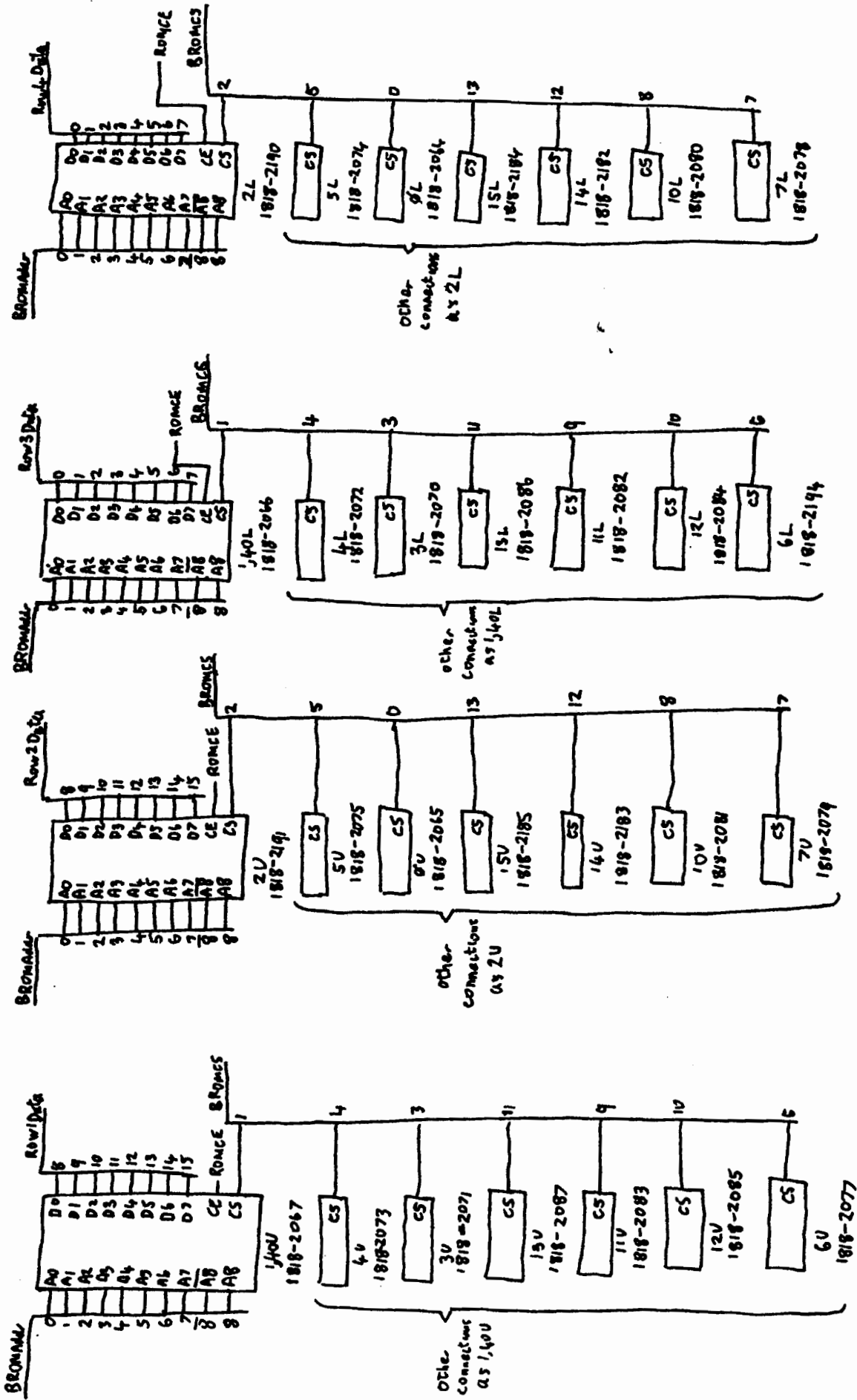
38





CS Buffers

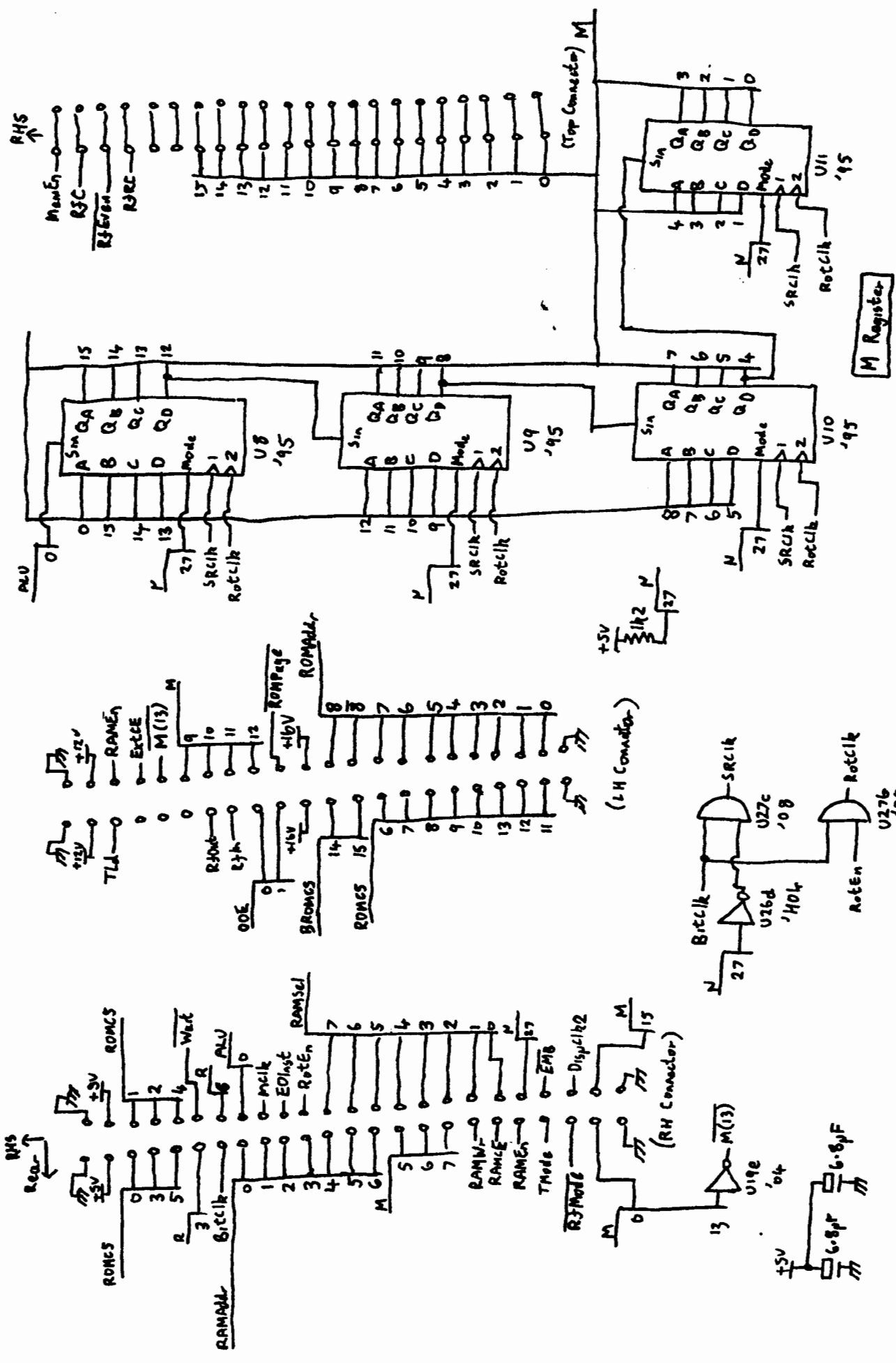
Data Buffers



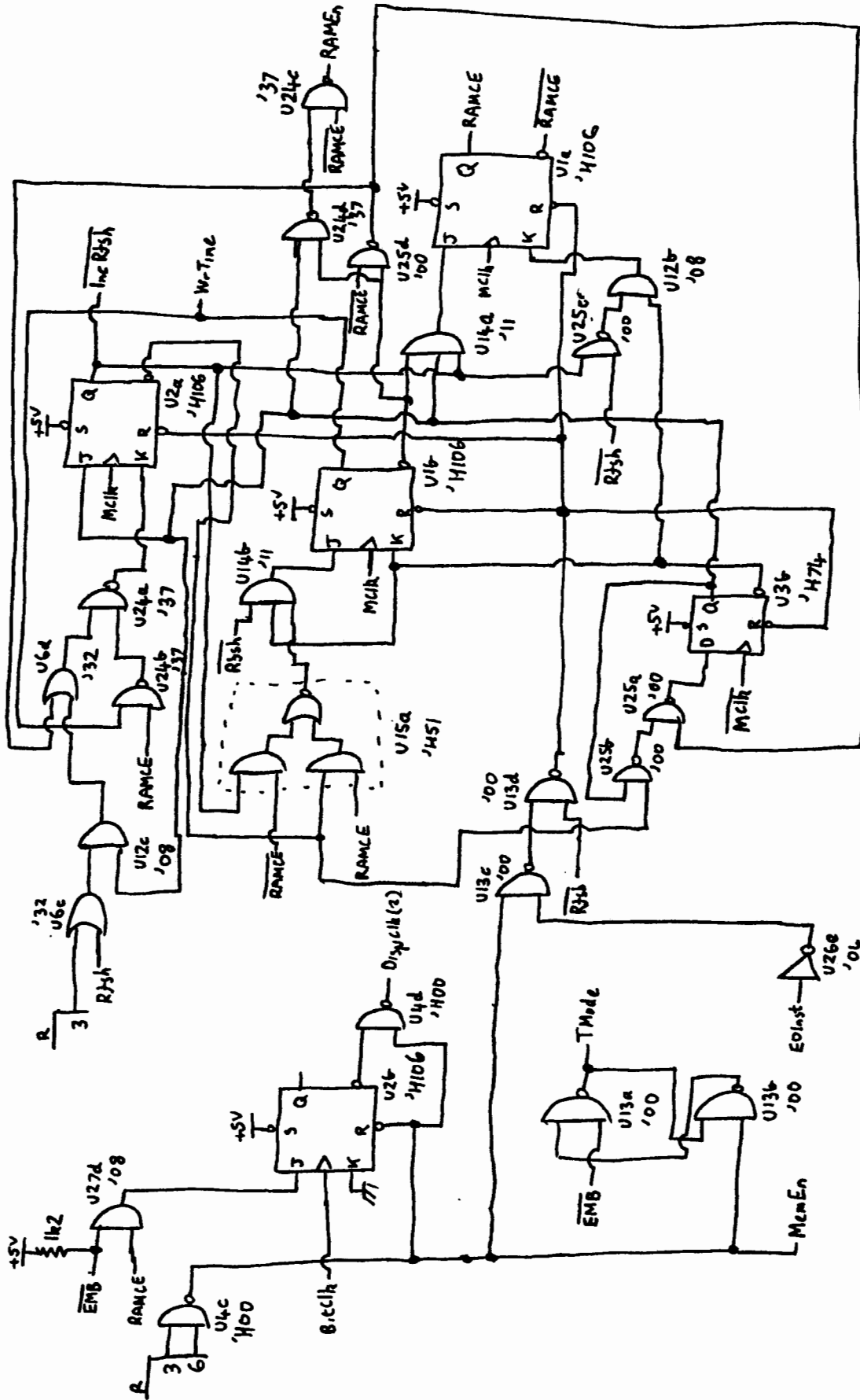
ROM



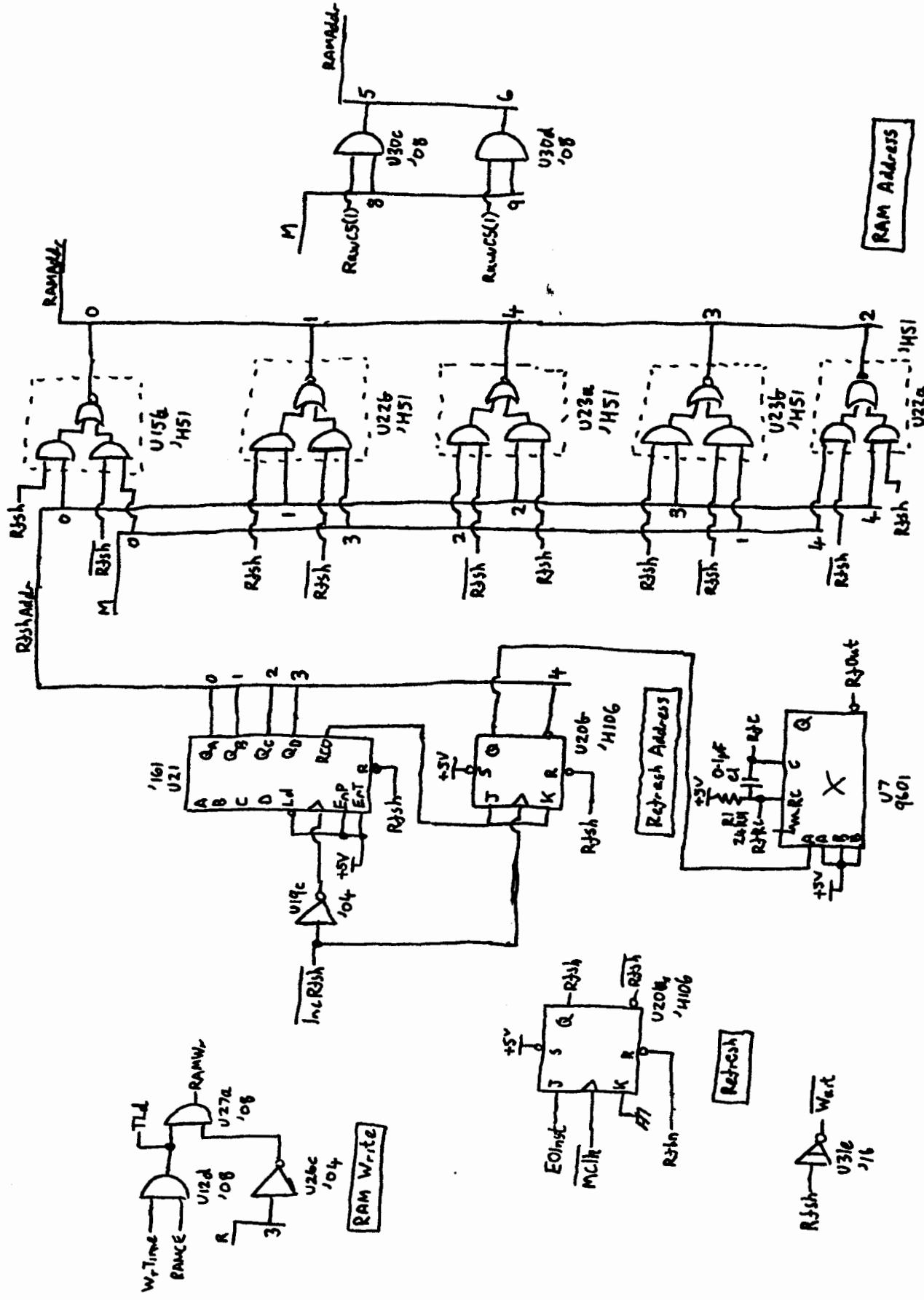
41

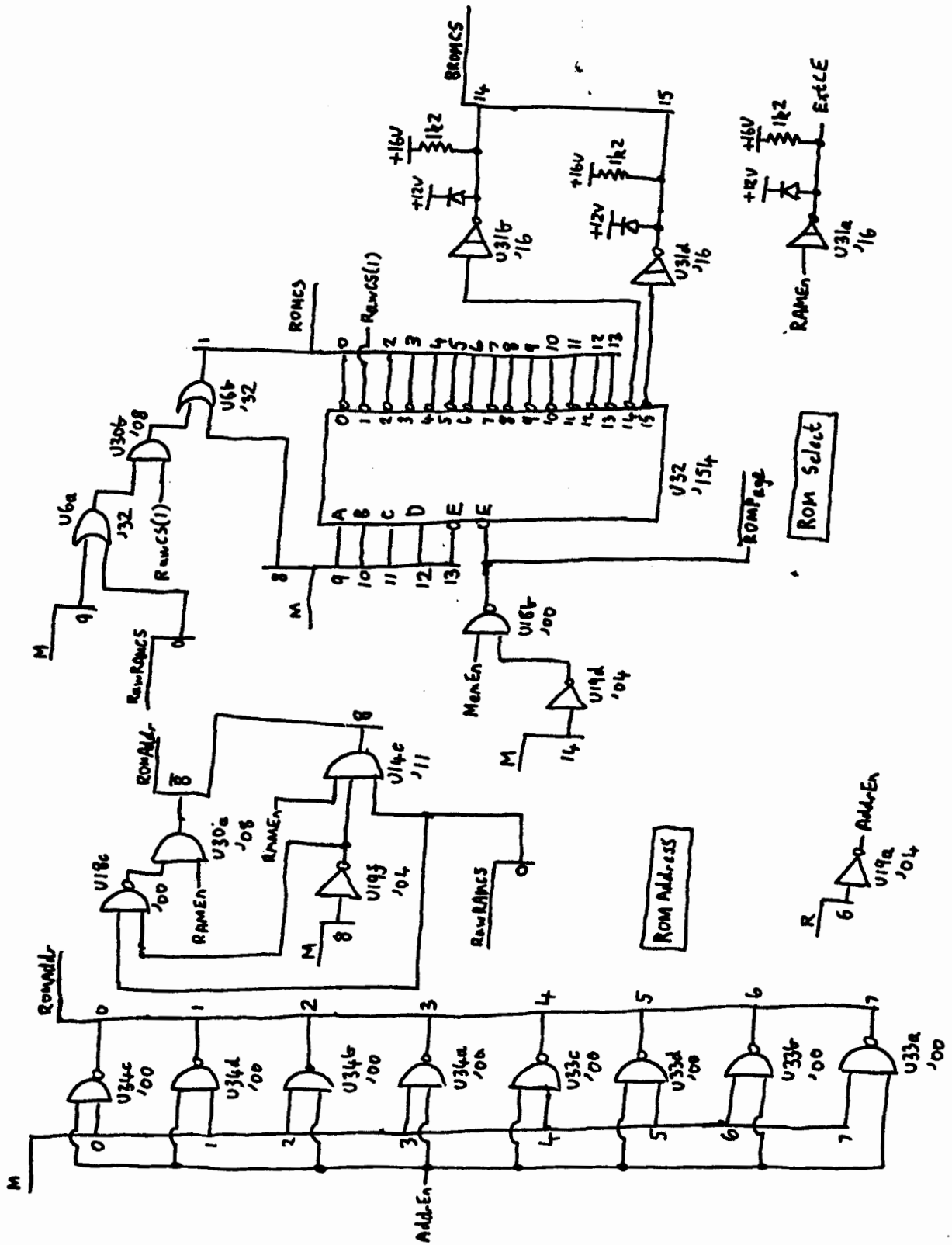


HP9830 Memory Address PCB Sheet 0 (0y/R) 09830-66582

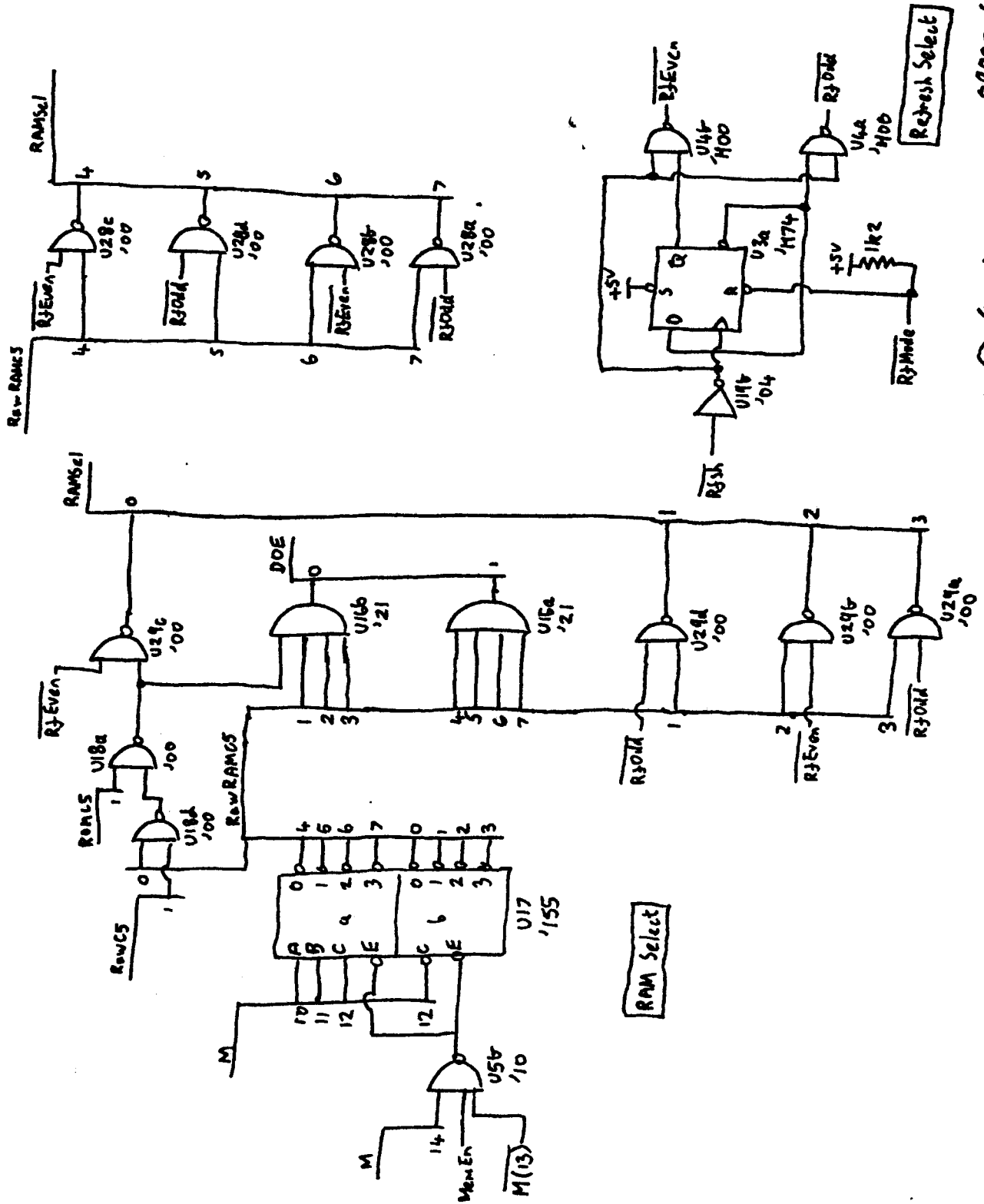


RAM Timing

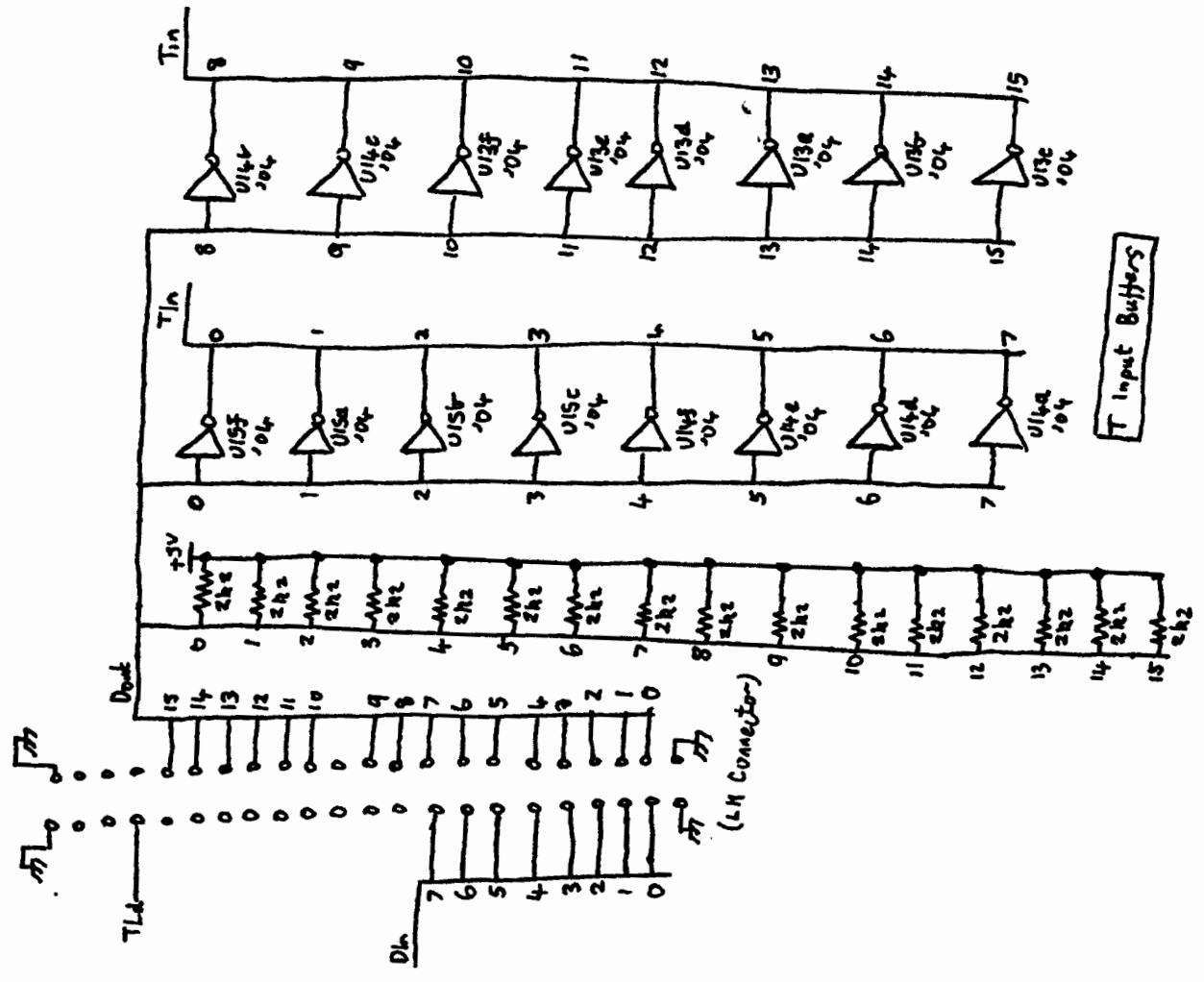
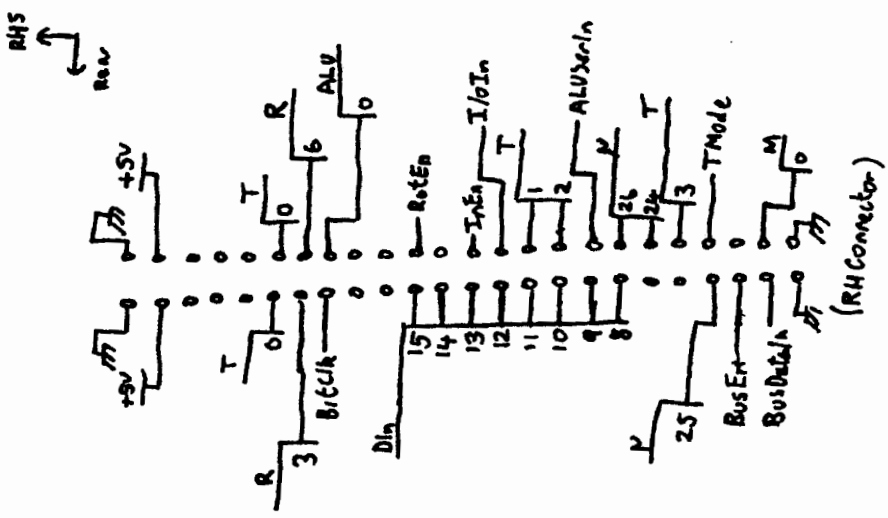


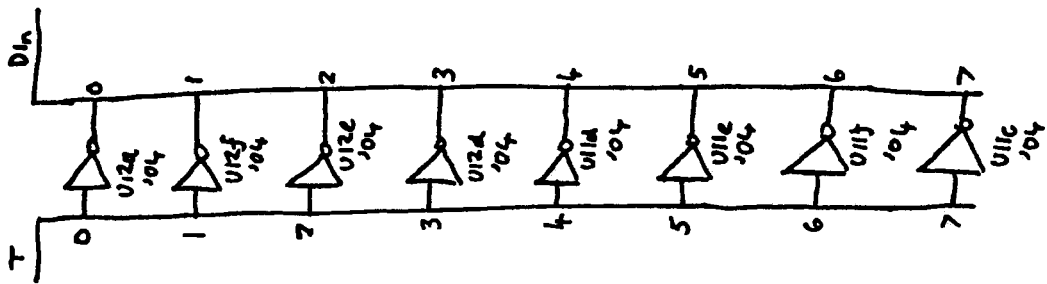
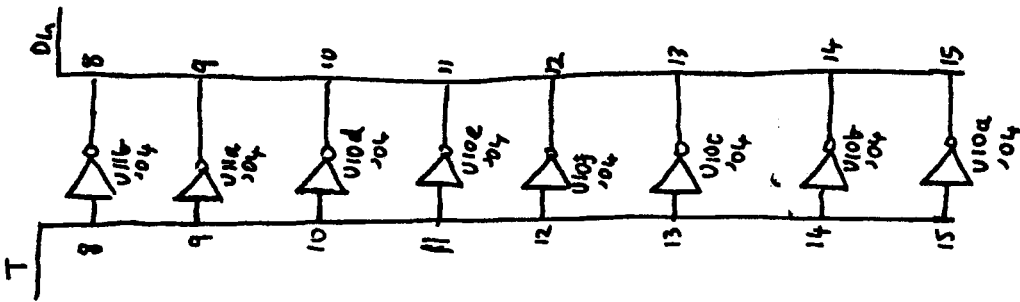


HP 9830 Memory Address PCB Sheet (6y/R) 09830-66582

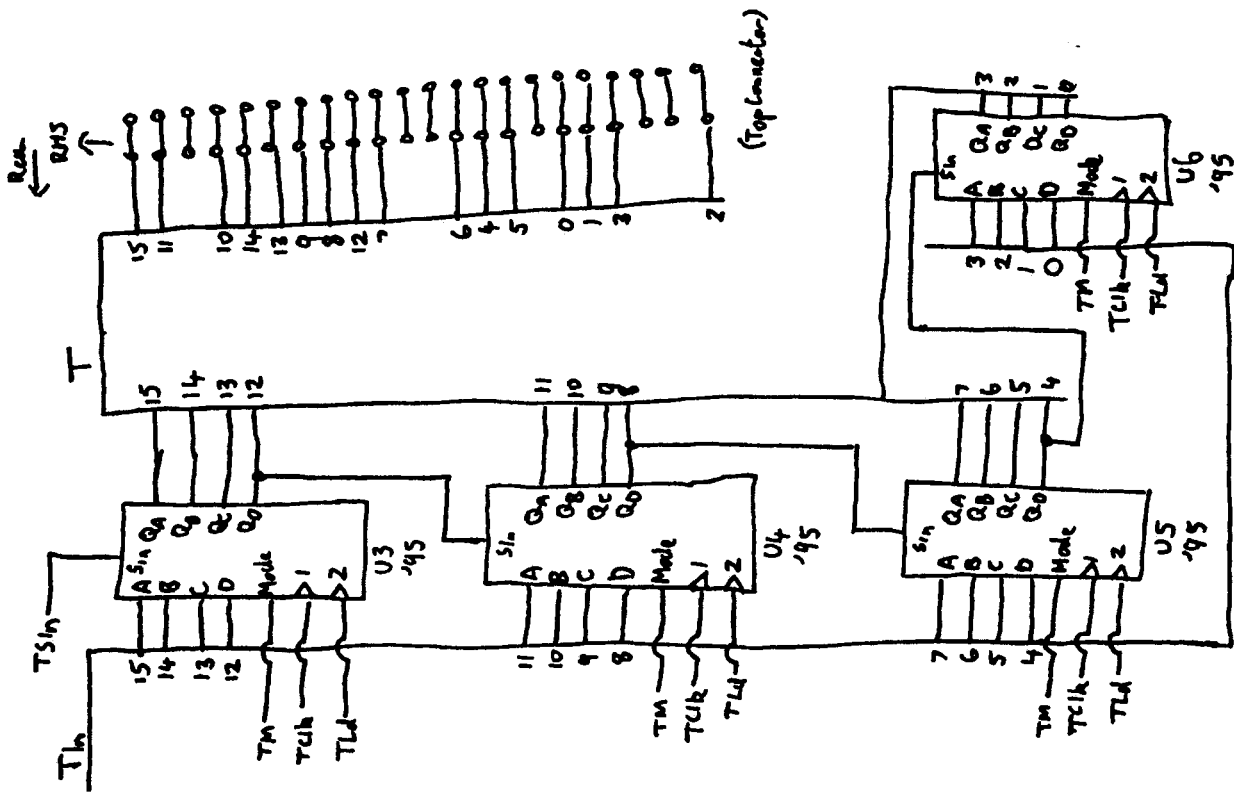


46

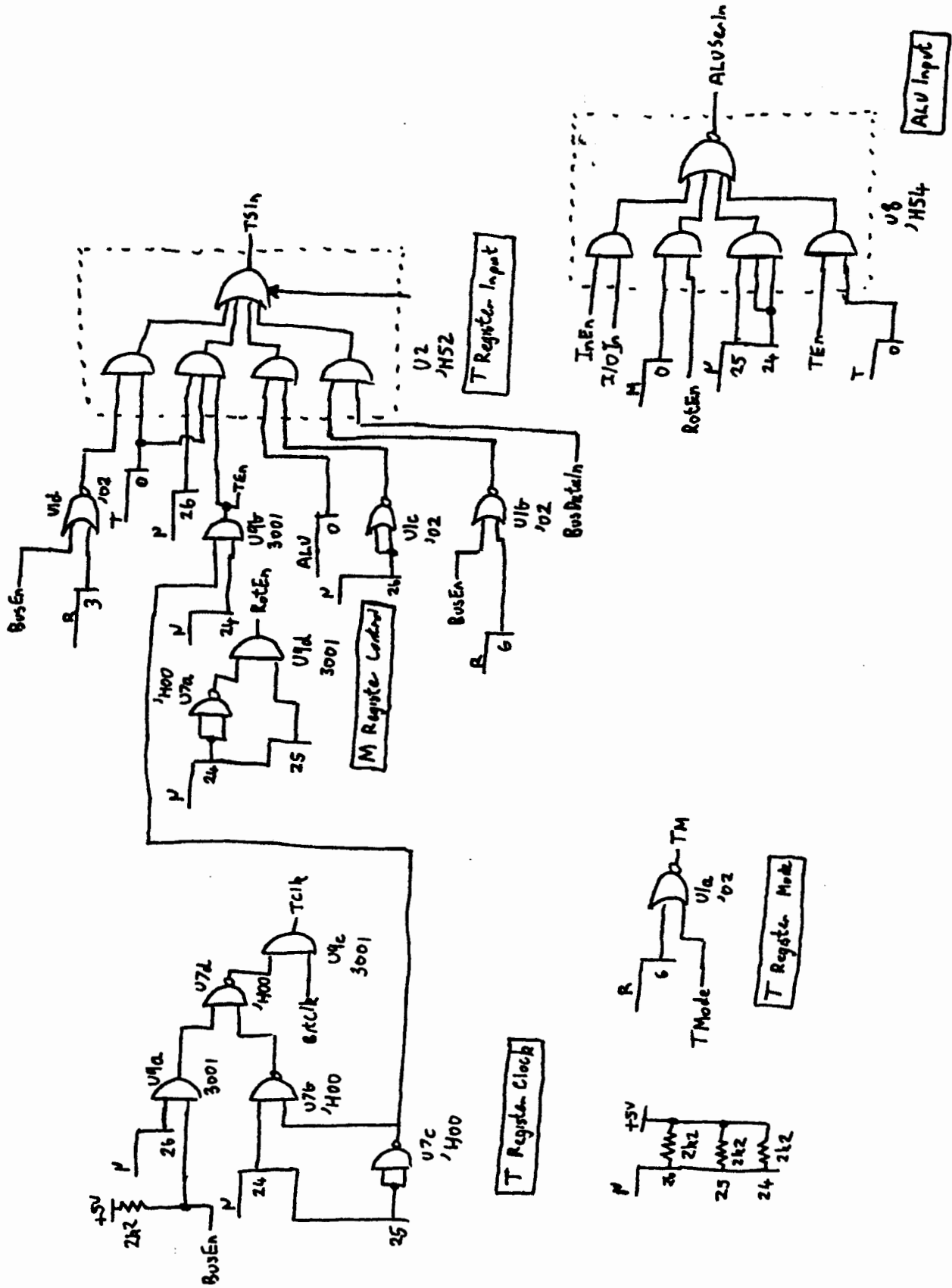




T Output Buffers

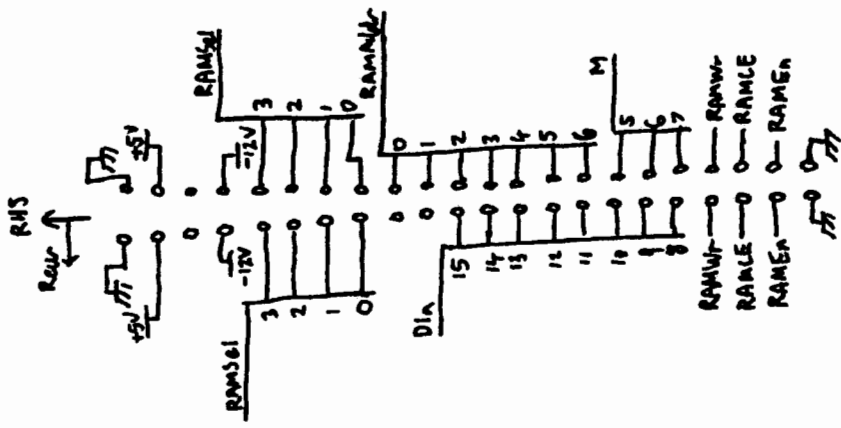


T Register

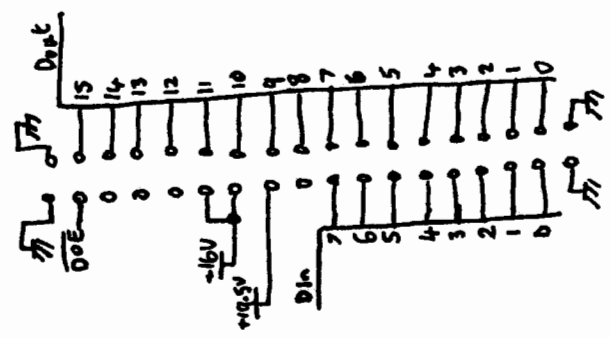




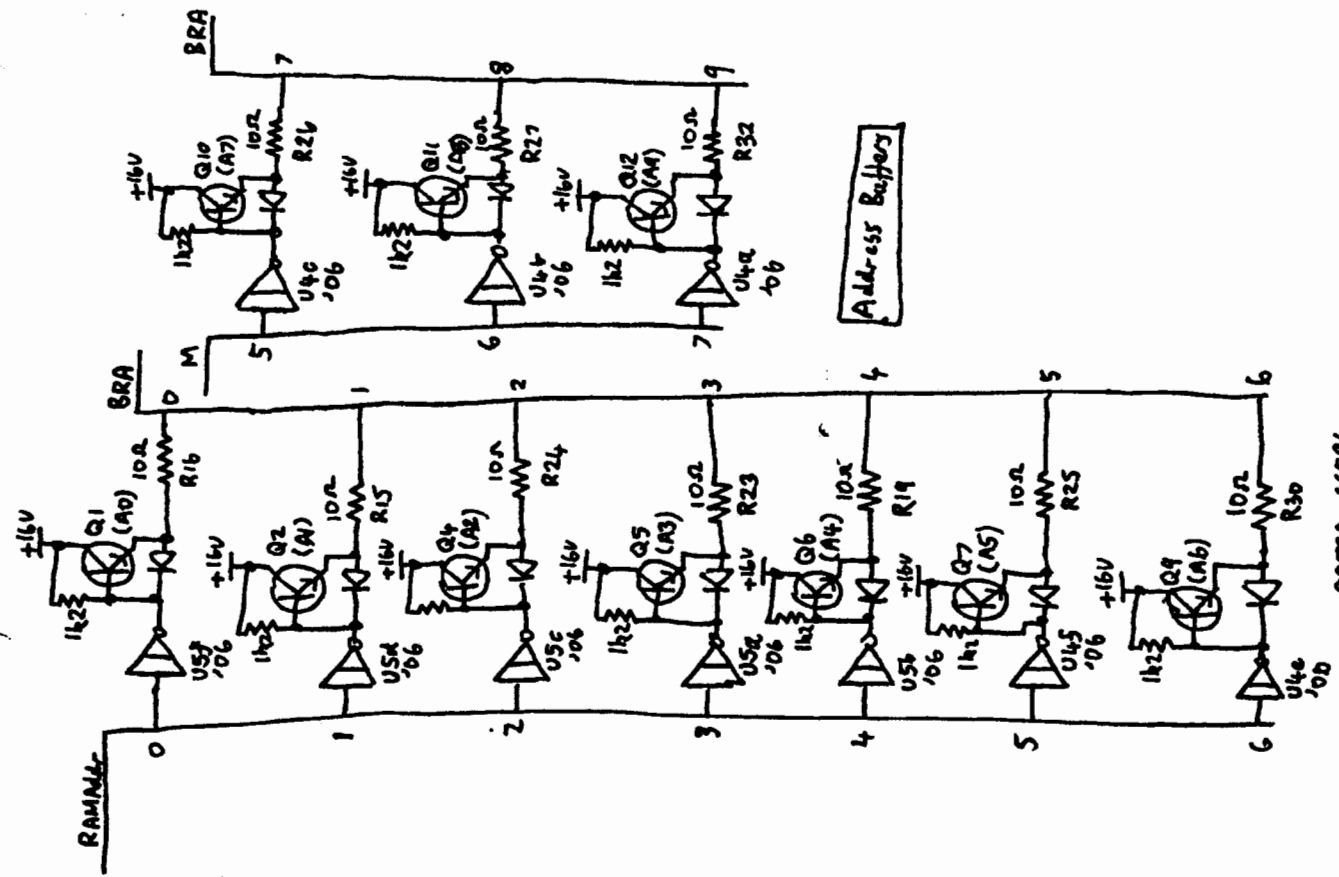
49



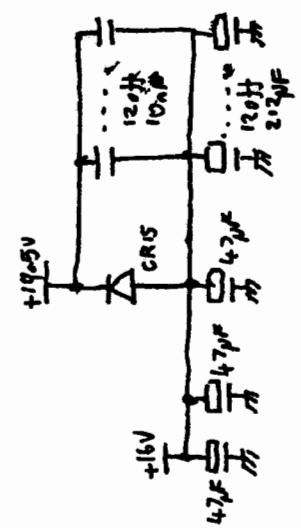
(RAM Connector)



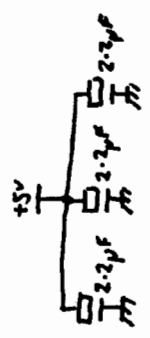
(LH Connector)



Address Buffers

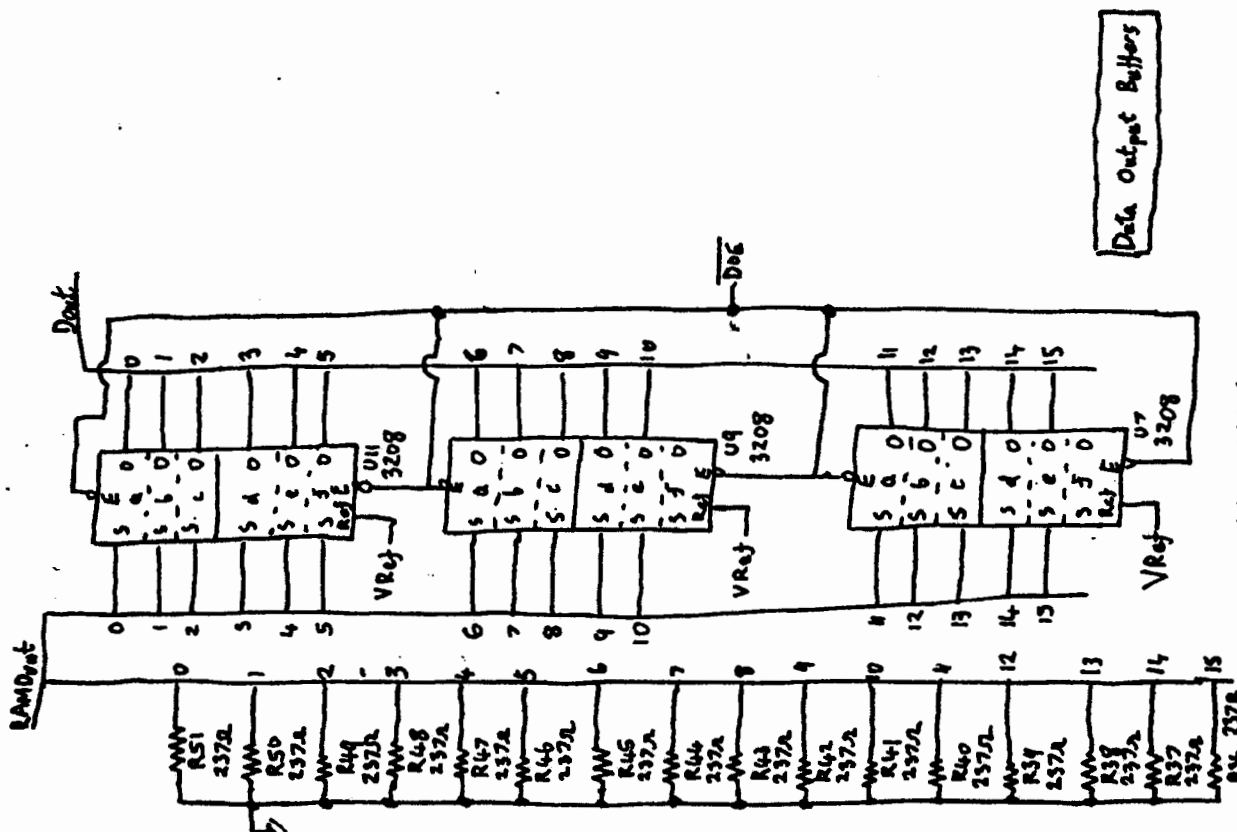


(RAM Connector)



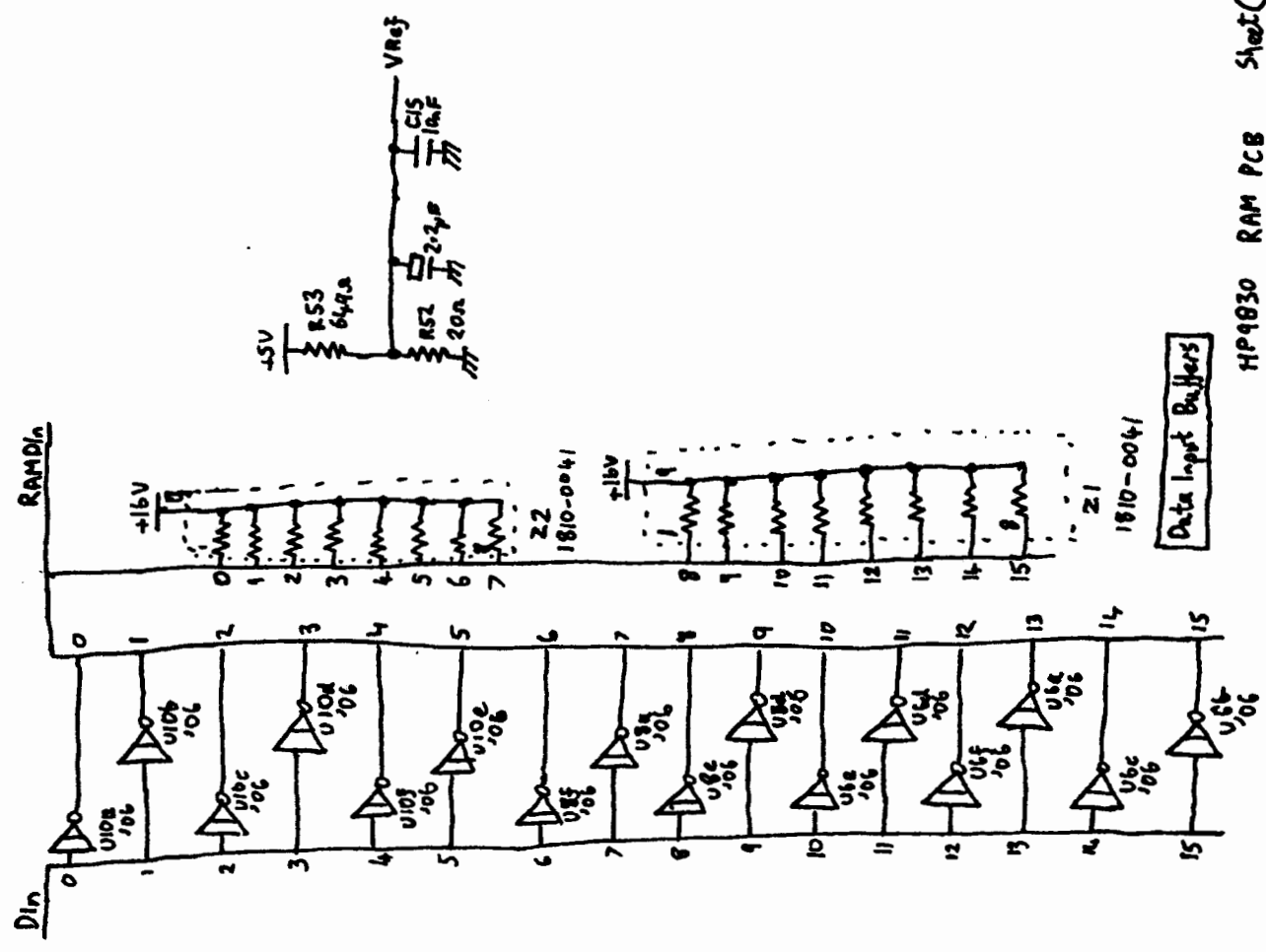
09830-66584  
11275-66584

HP9830 RAM PCB Sheet 1 (6y/4)

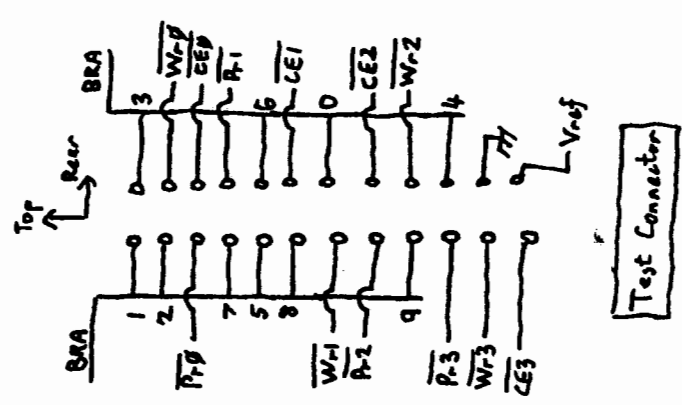
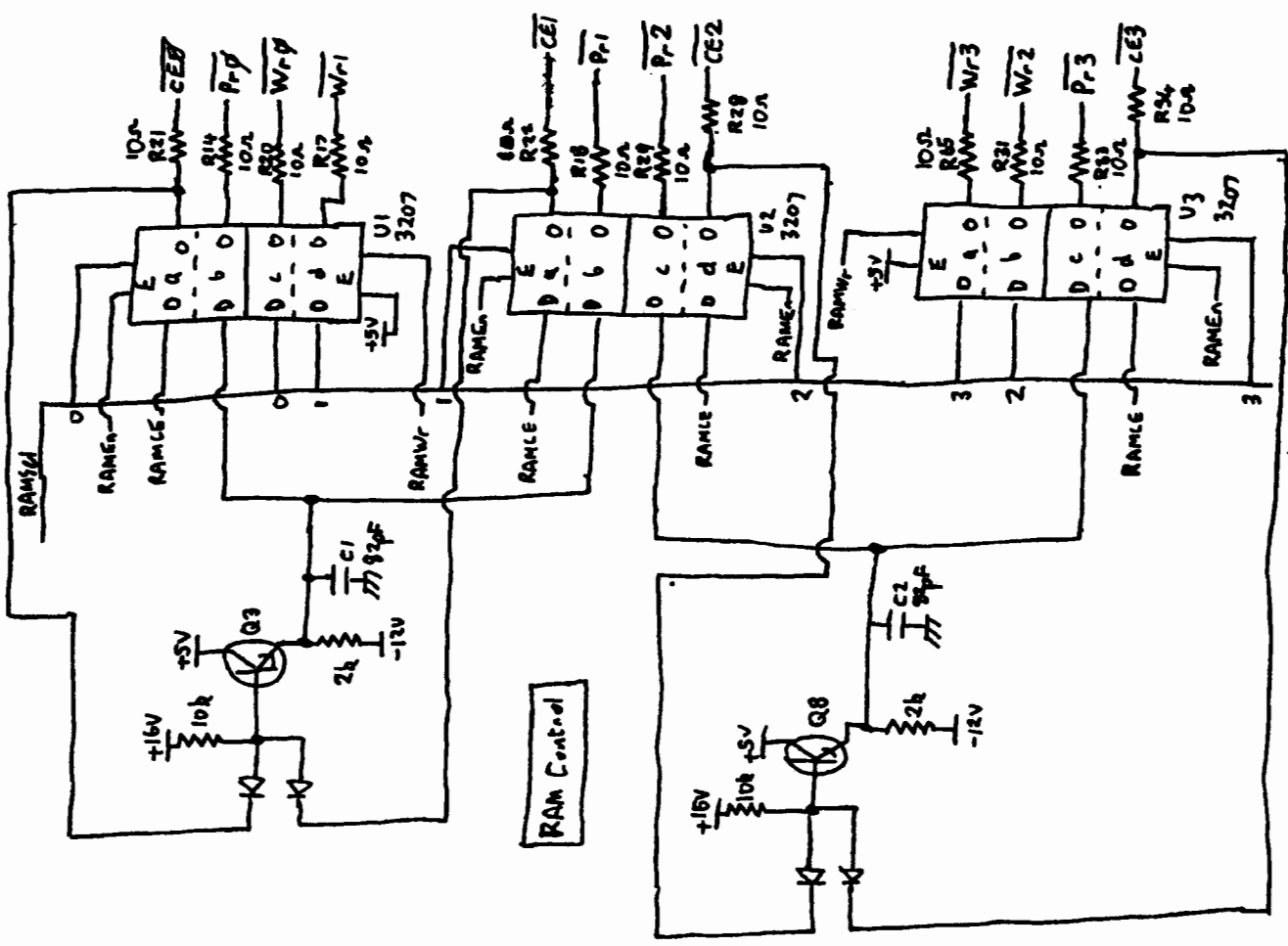


Data Output Buffers

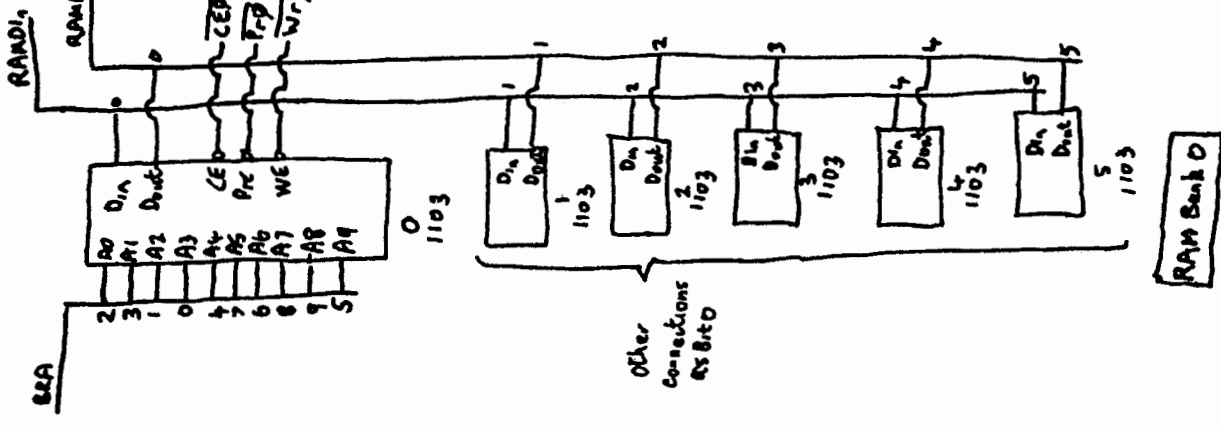
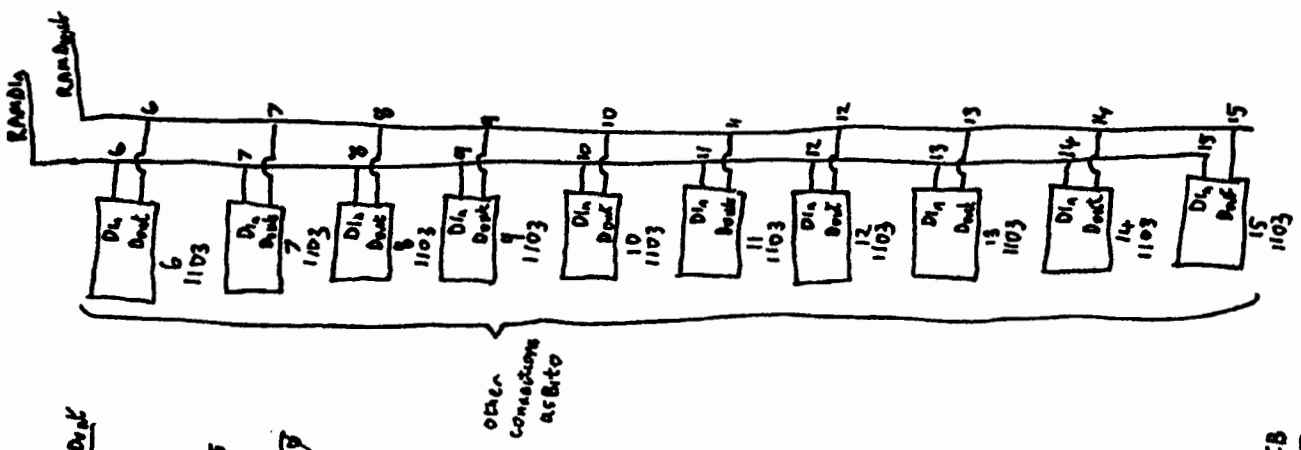
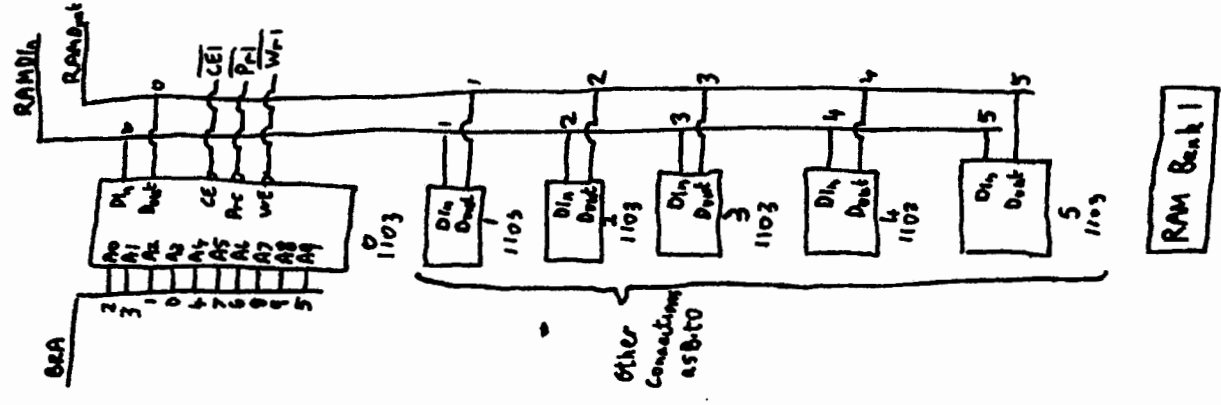
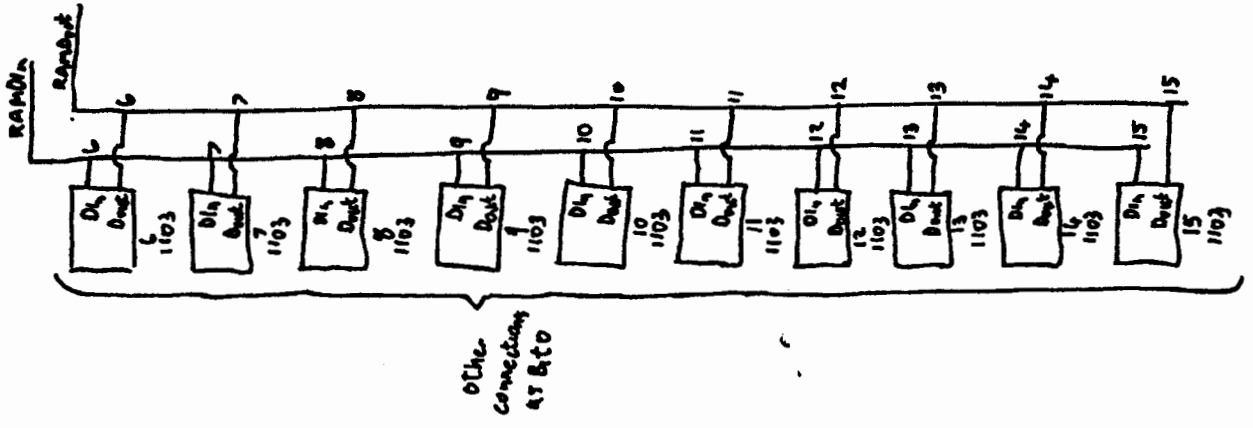
09830-66584  
11275-66584



Data Input Buffers



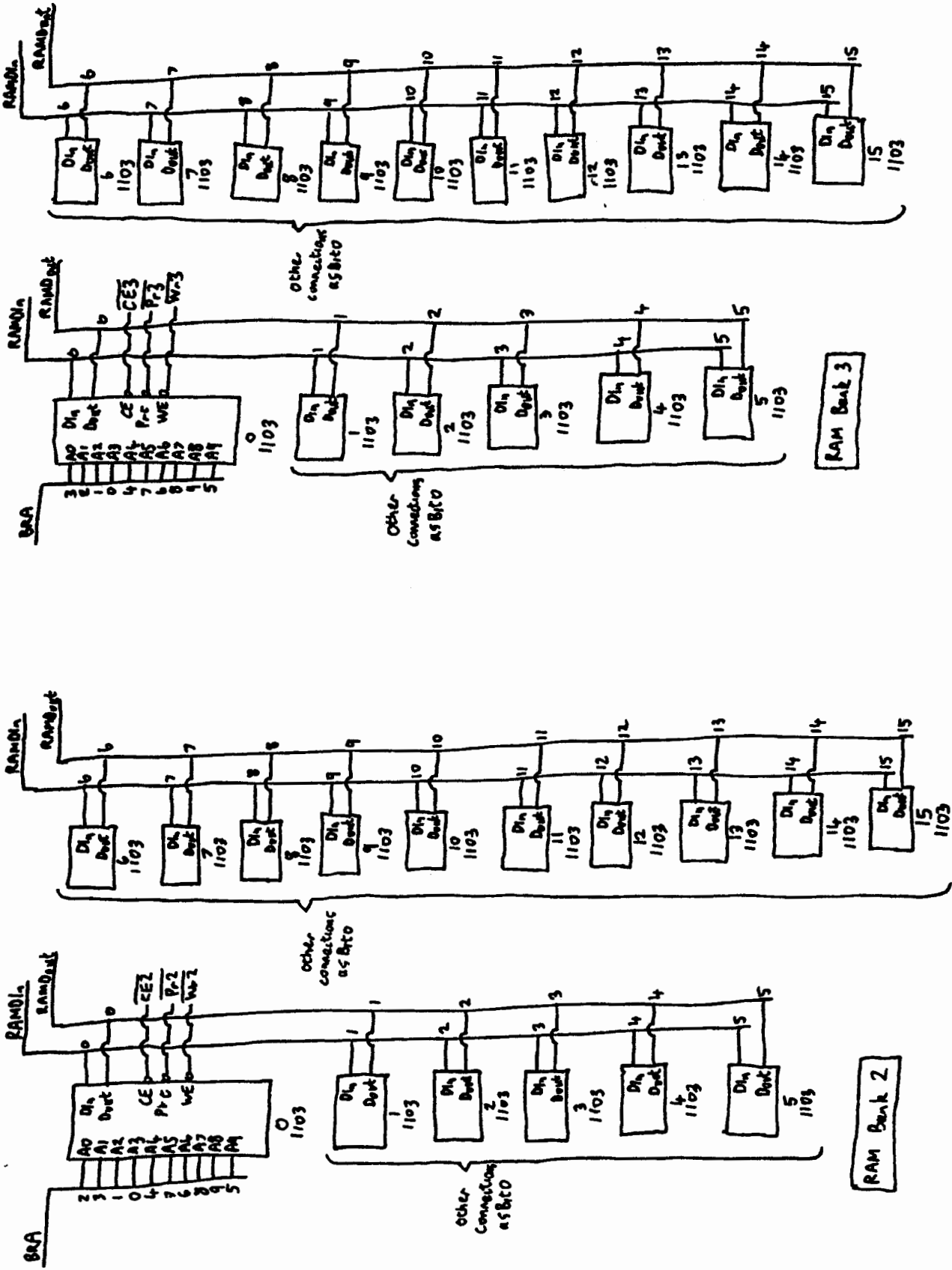
09830-66584  
11275-66584



Note: Bank 0 towards top of PCB

09830-66584  
11275-66584

(6g/v) HP4930 RAM PCB sheet ④



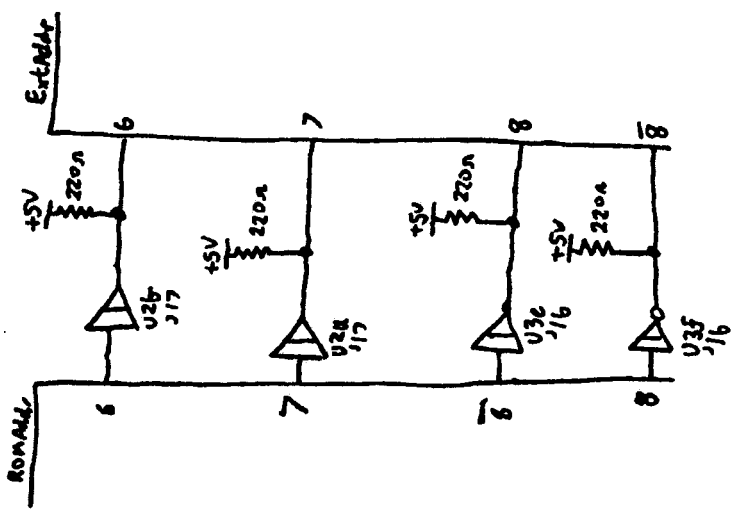
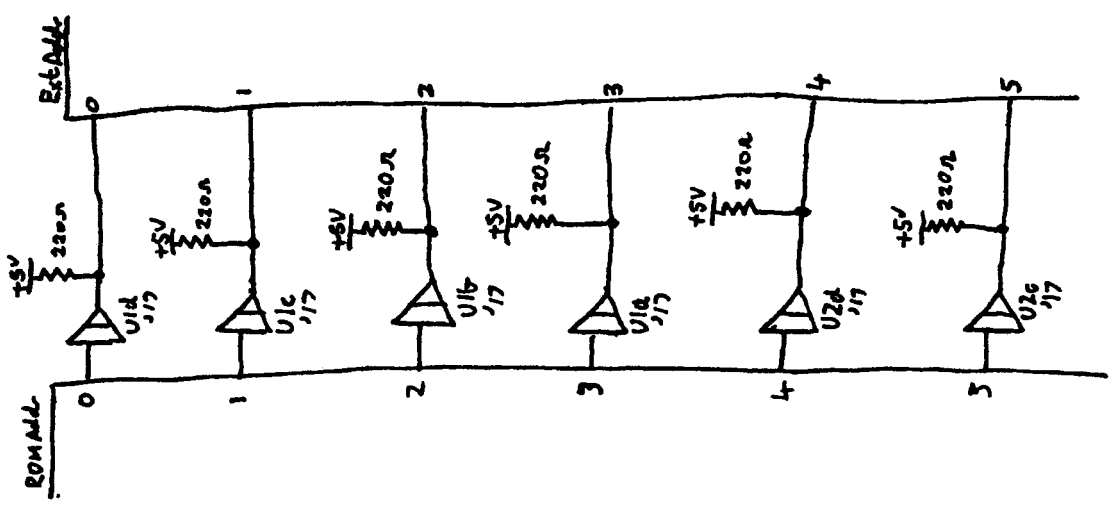
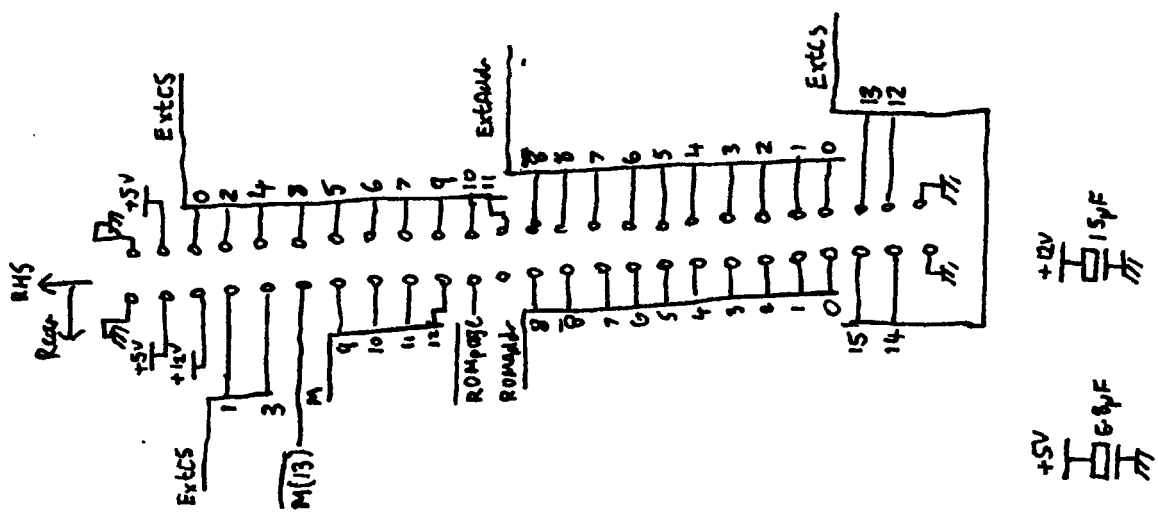
01830-66584  
11275-66584

(6/1/7)

⑤

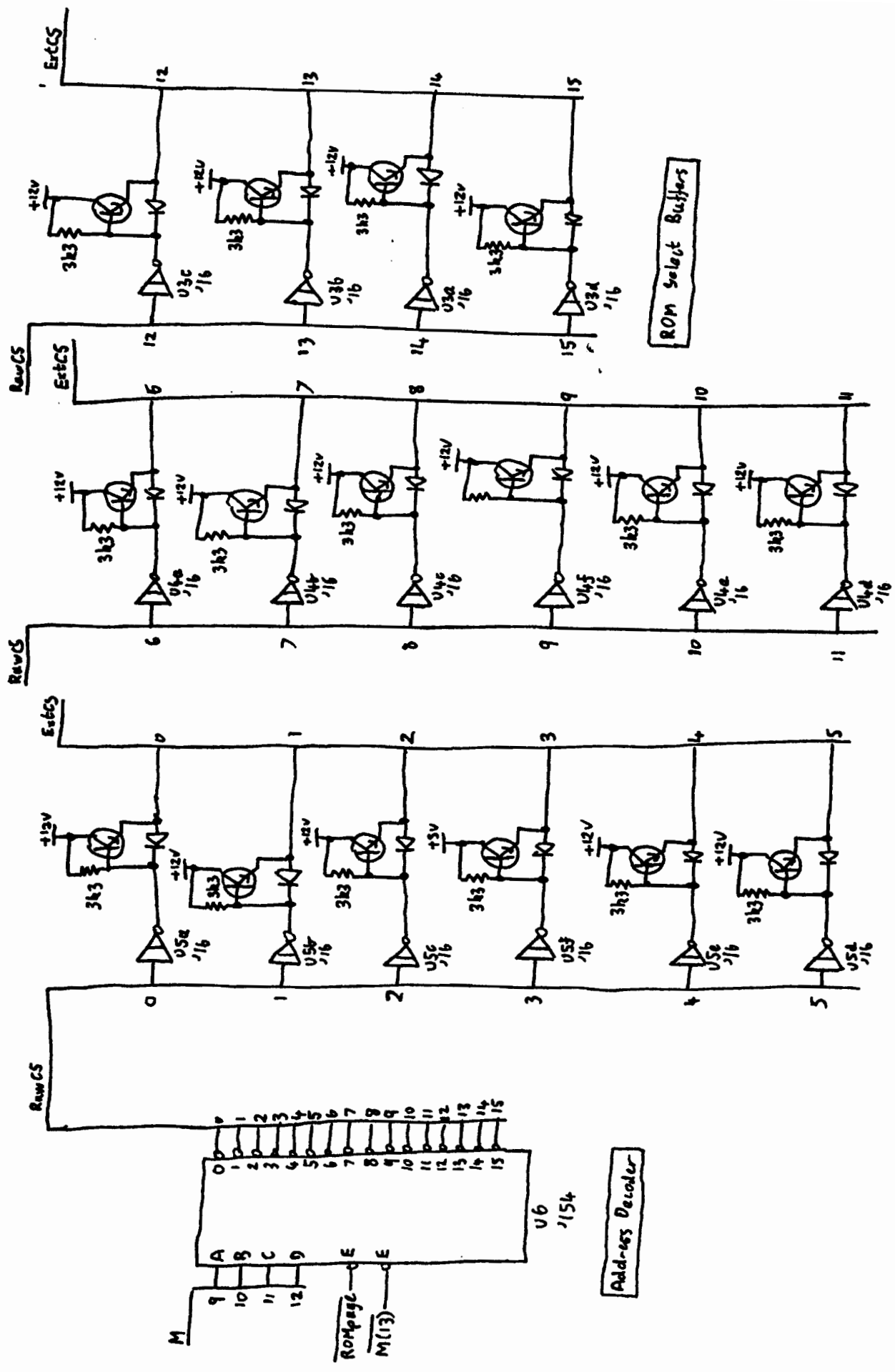
HP9830 RAM PCB Sheet

64

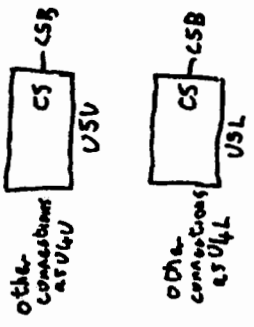
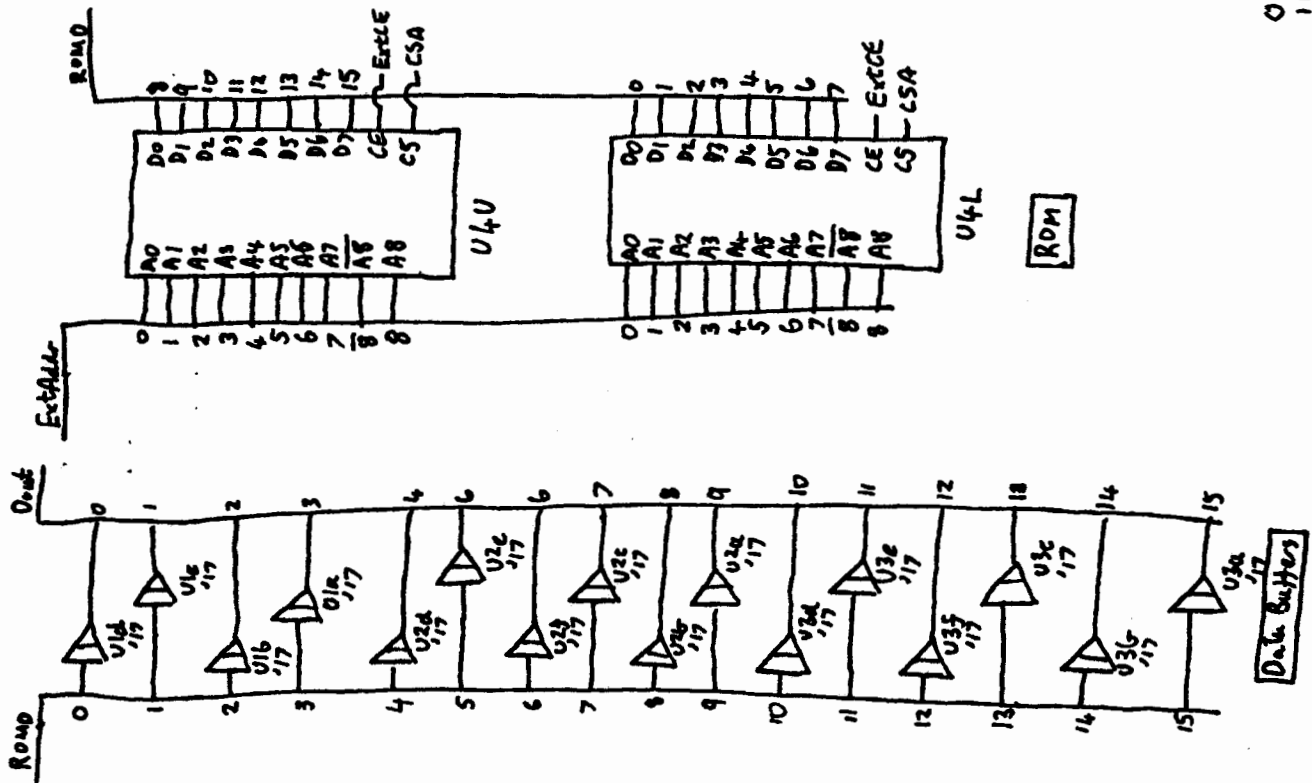


Address Buffers

HP9830 Ext ROM selector sheet ① (R/bn) 09830-66525



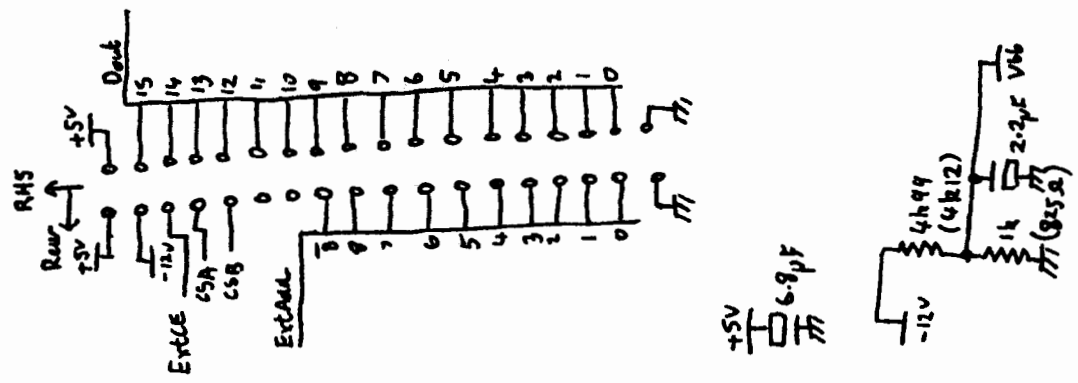
50



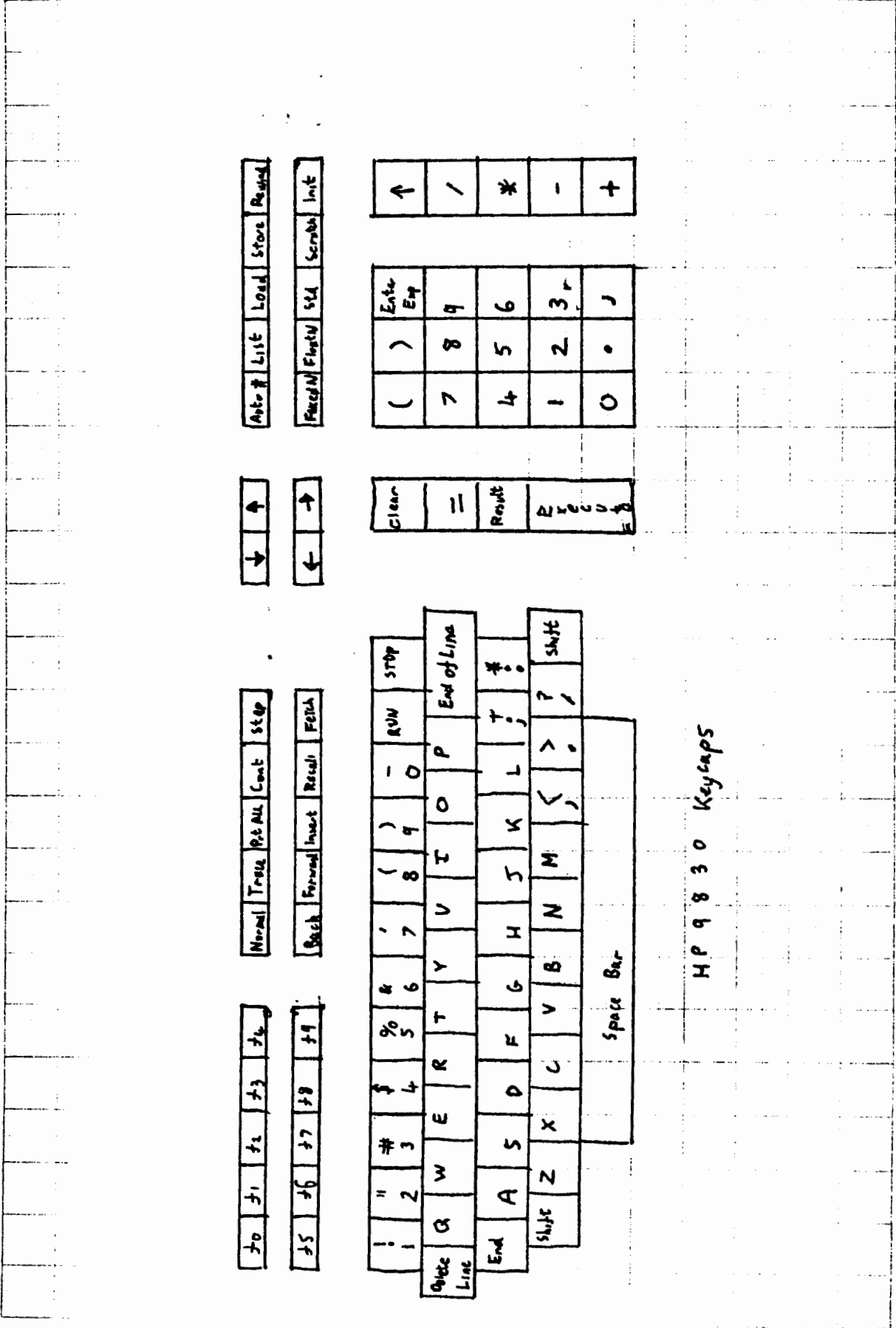
U4U	09830-66526	11270-66920	11271-66520
U4L	1818-2107	1818-2109	1818-2117
USU	1818-2106	1818-2108	1818-2116
USL	-	1818-2111	1818-2119
		1818-2110	1818-2118

09830-66526 (R/B4)  
 11270-66520 } (R/B4)  
 11271-66521

HP4830 Internal Ext ROM PCB







f0 f1 f2 f3 f4

Normal Trace Print All Cont Stop

Auto List Load Store Round

f5 f6 f7 f8 f9

Back Forward Insert Recall Fetch

Fixed/Floaty Std Screen Init

↓ ↑

← →

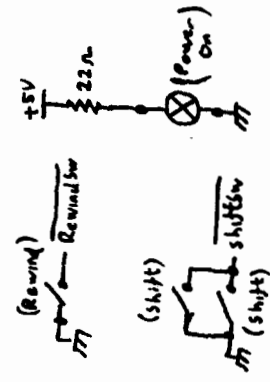
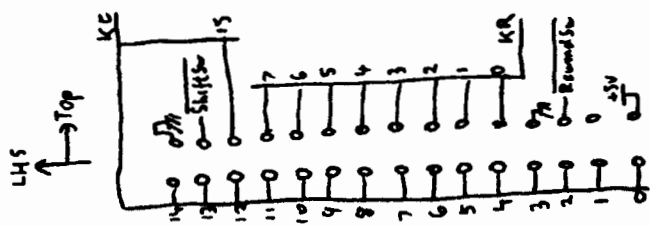
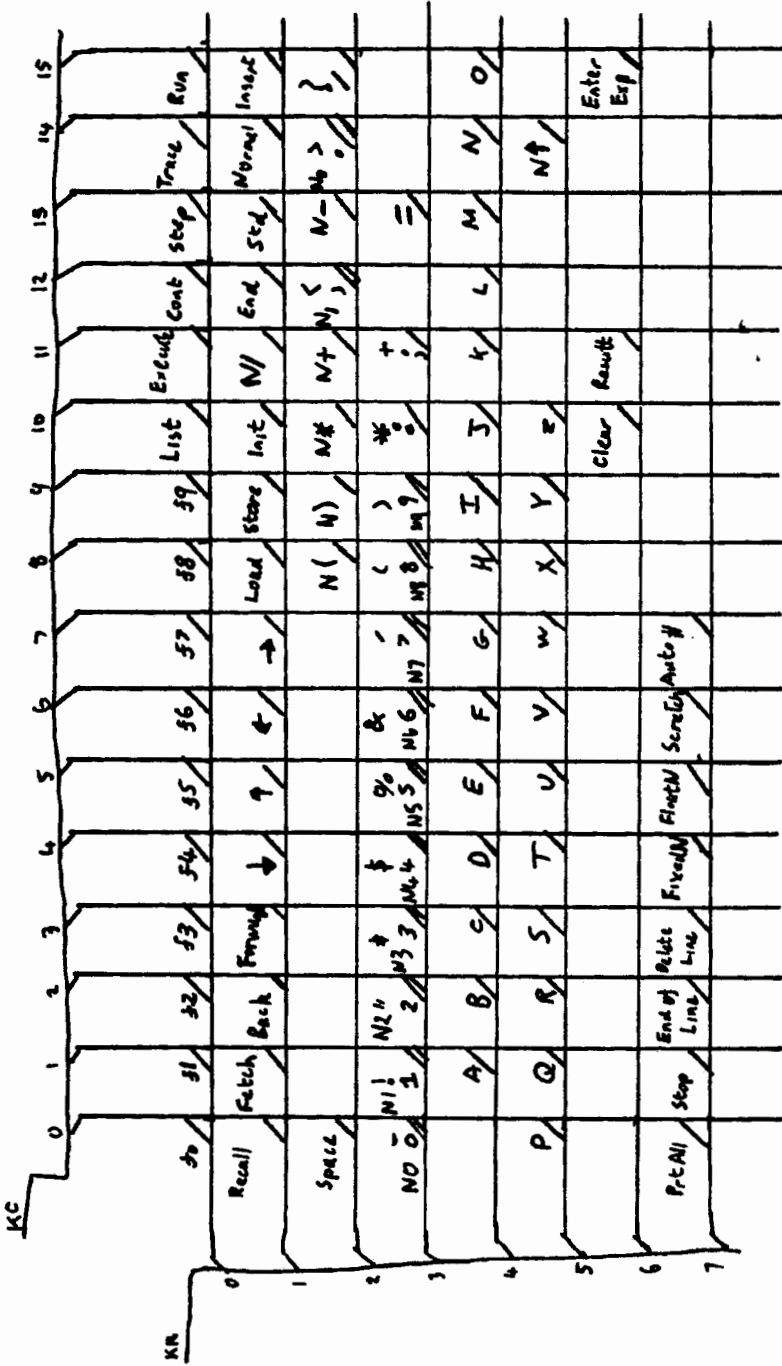
!	"	#	↑	%	4	5	6	'	(	)	-	0	RUN	STOP
1	2	3	4	5	6	7	8	9	+	*	÷	√	End of Line	End of Line
Q	W	E	R	T	Y	V	U	I	O	P				
End	A	S	D	F	G	H	J	K	L	;	:	;		
Shift	Z	X	C	V	B	N	M	<	>	>	>	>	?	Shift
Space Bar														

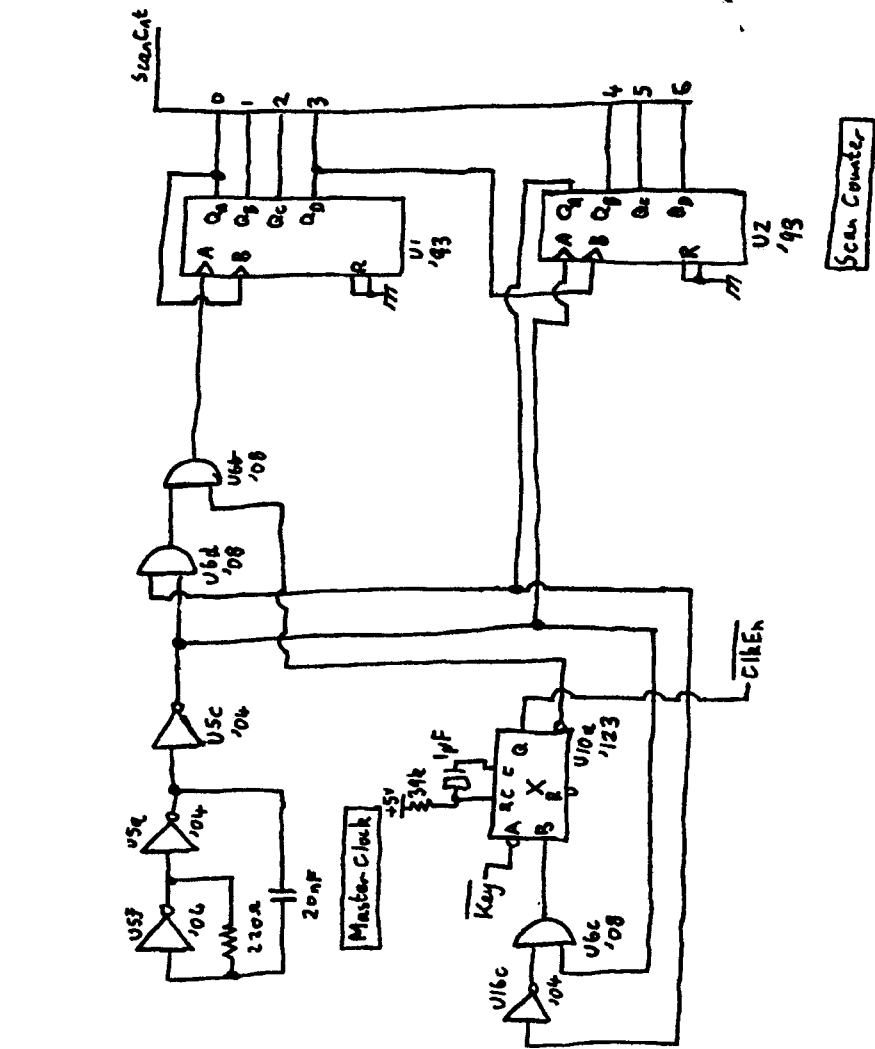
(	)	Enter
7	8	9
4	5	6
1	2	3
0	.	,

Clear	=	Result	Exec
-------	---	--------	------

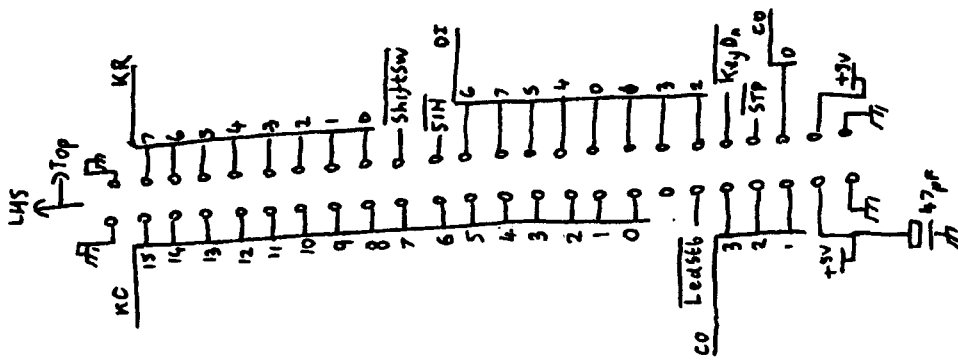
↑	/	*	-	+
---	---	---	---	---

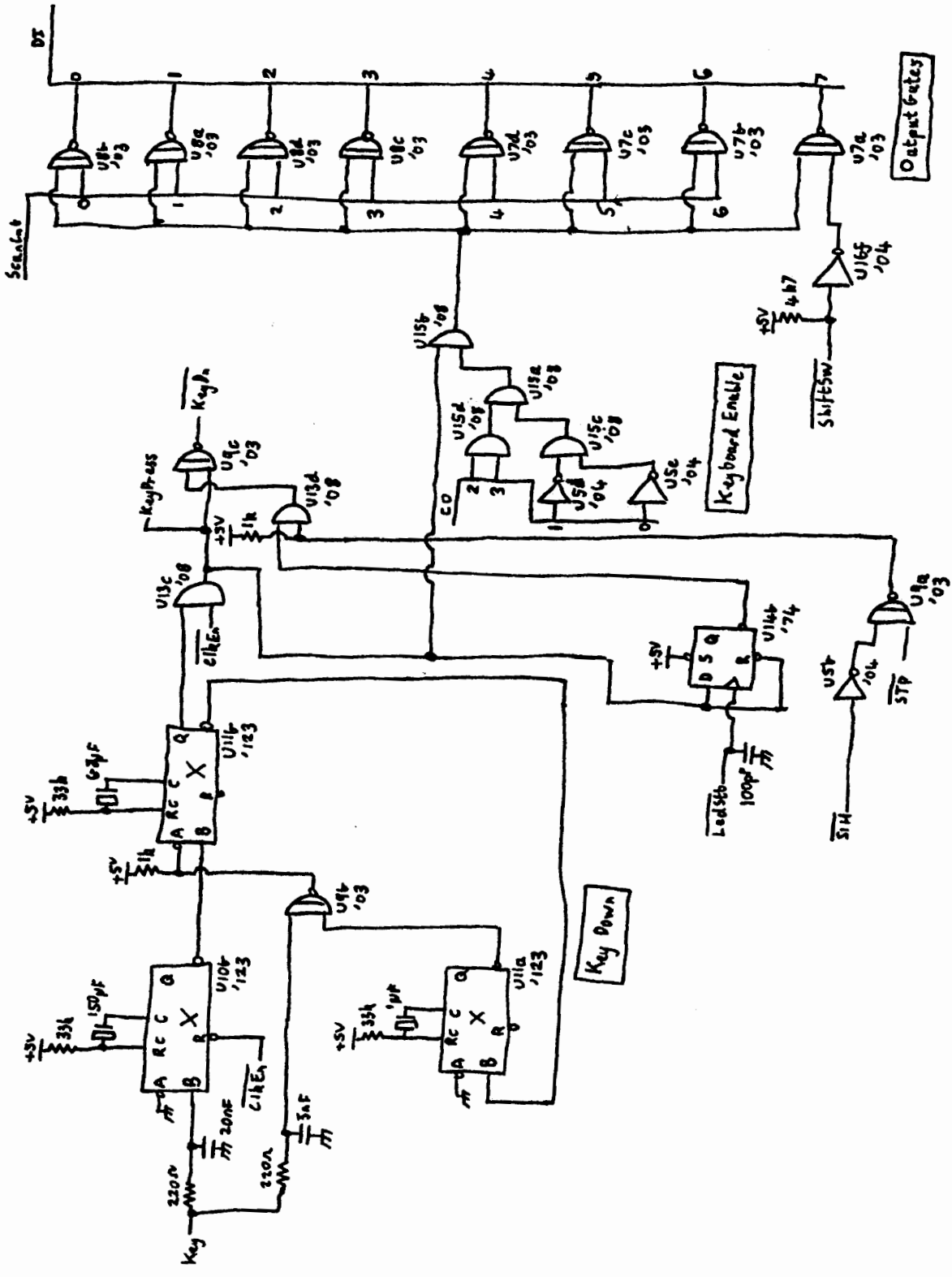
HP 9830 Keypads

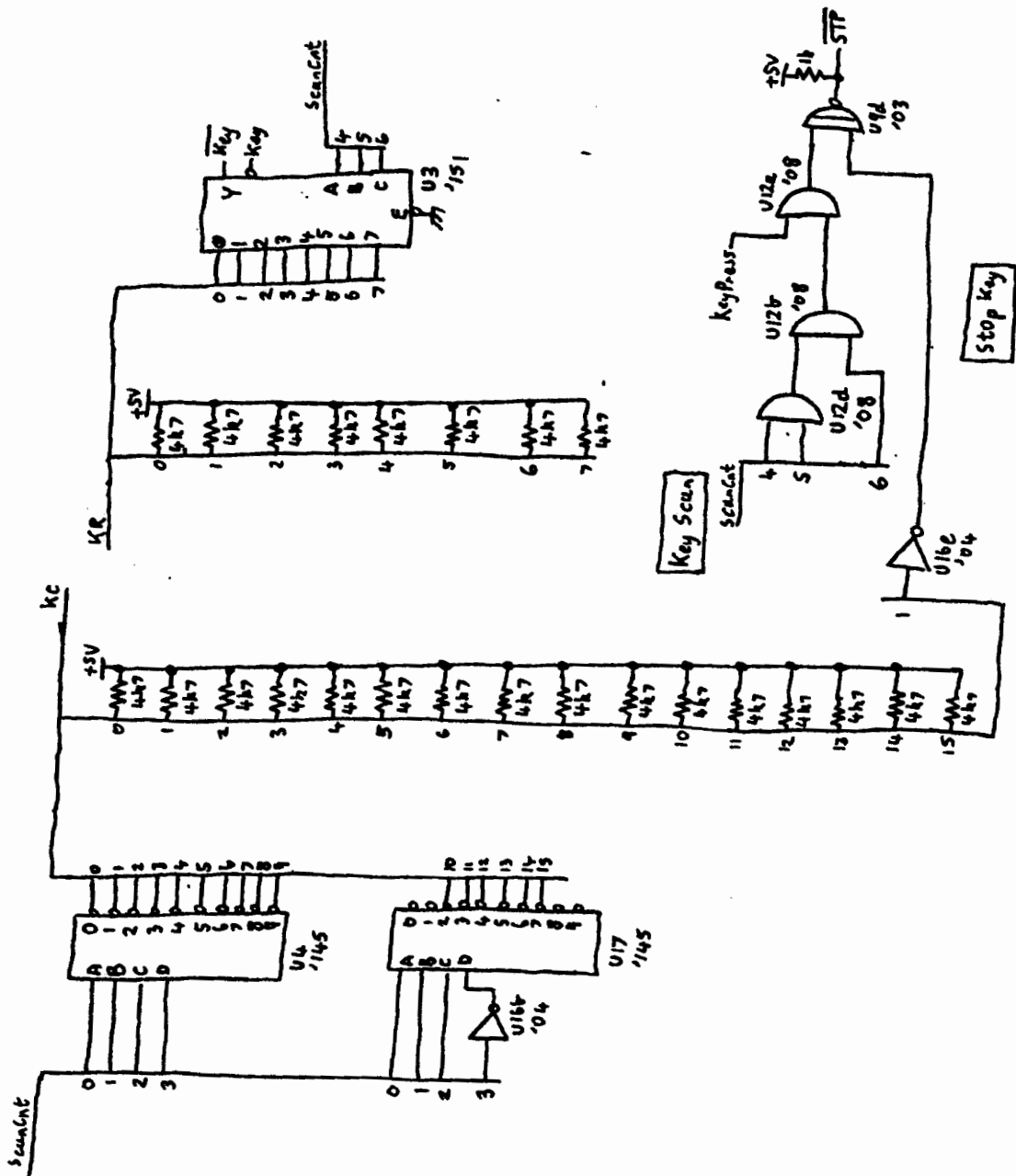


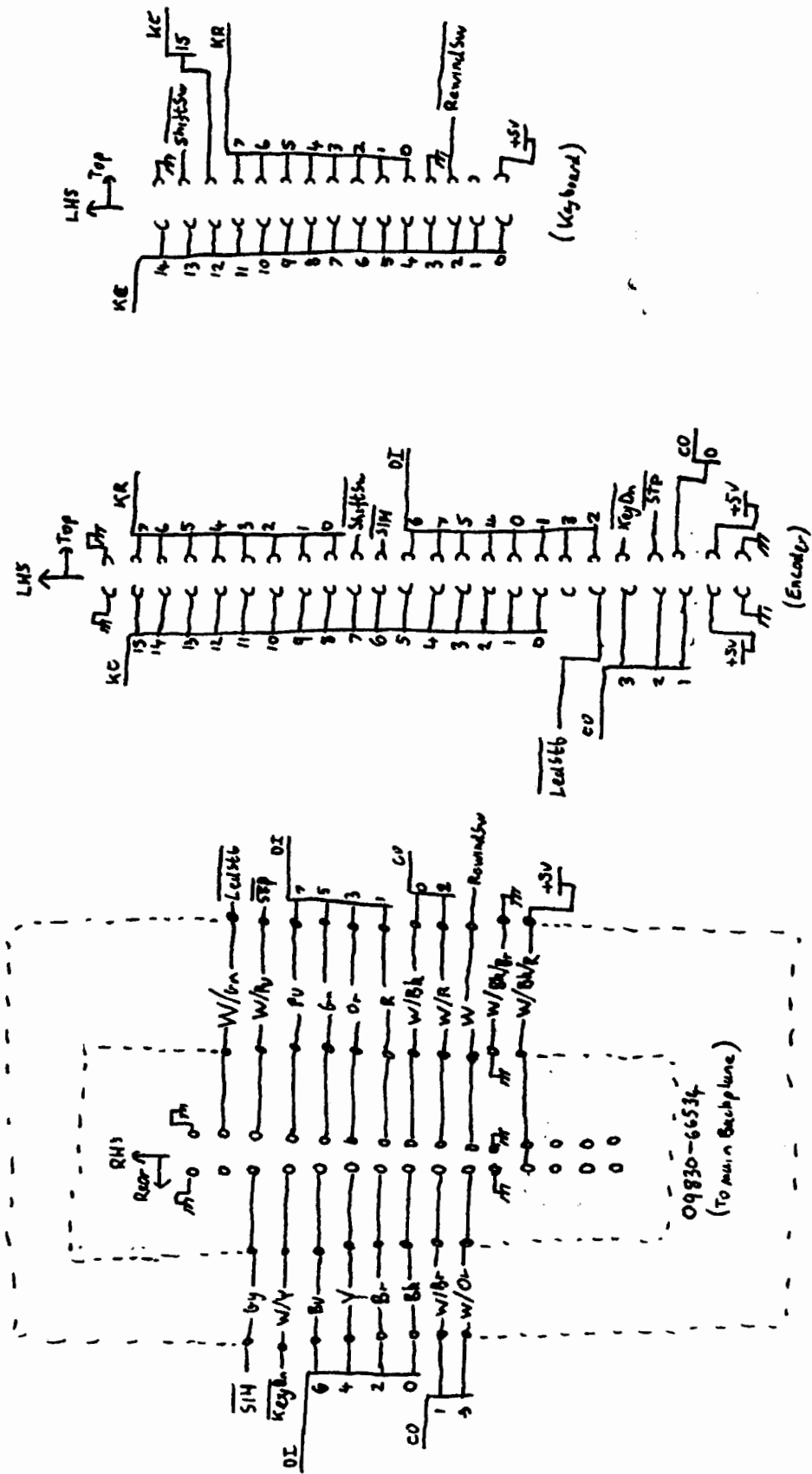


Scan Counter



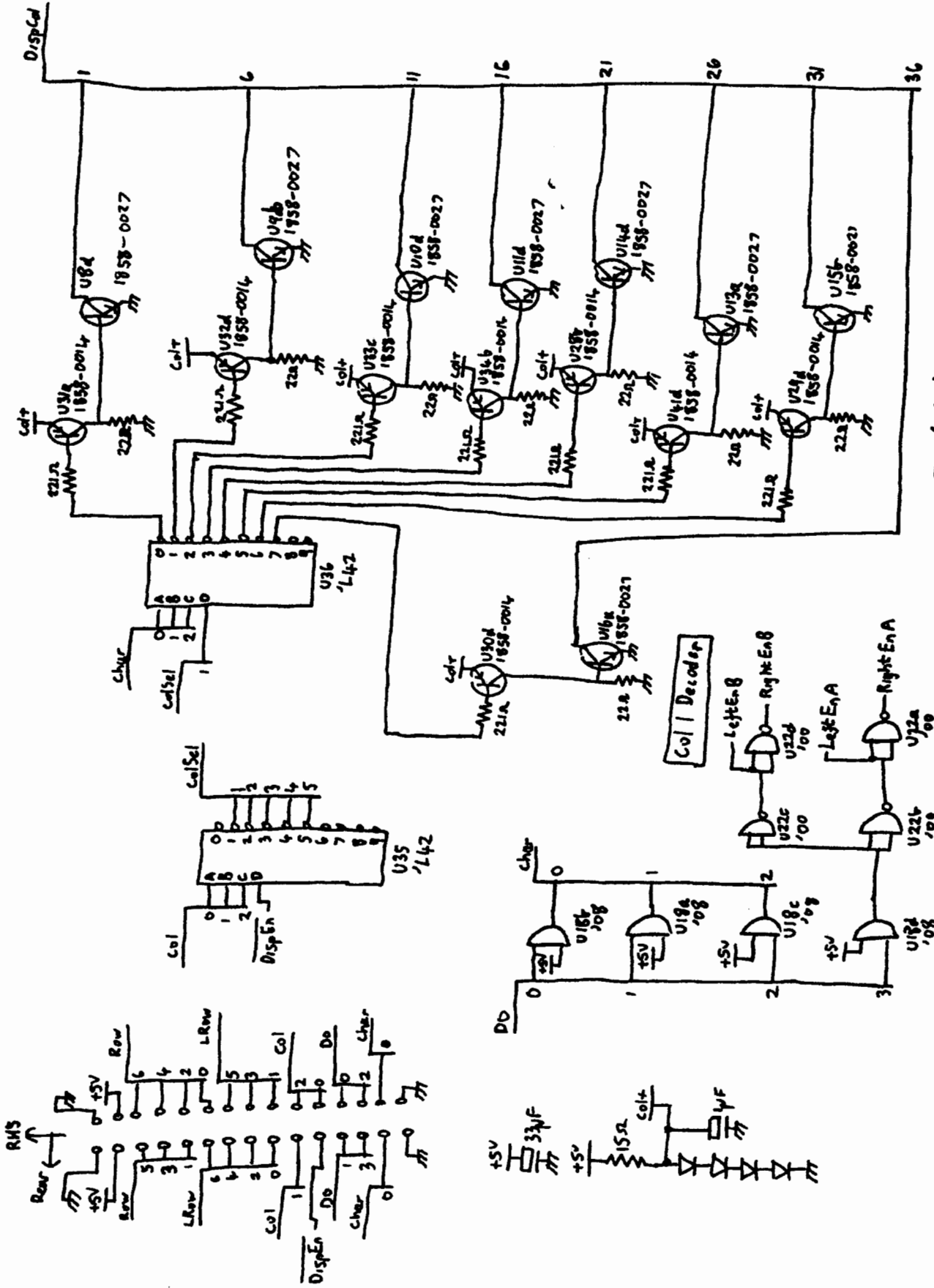


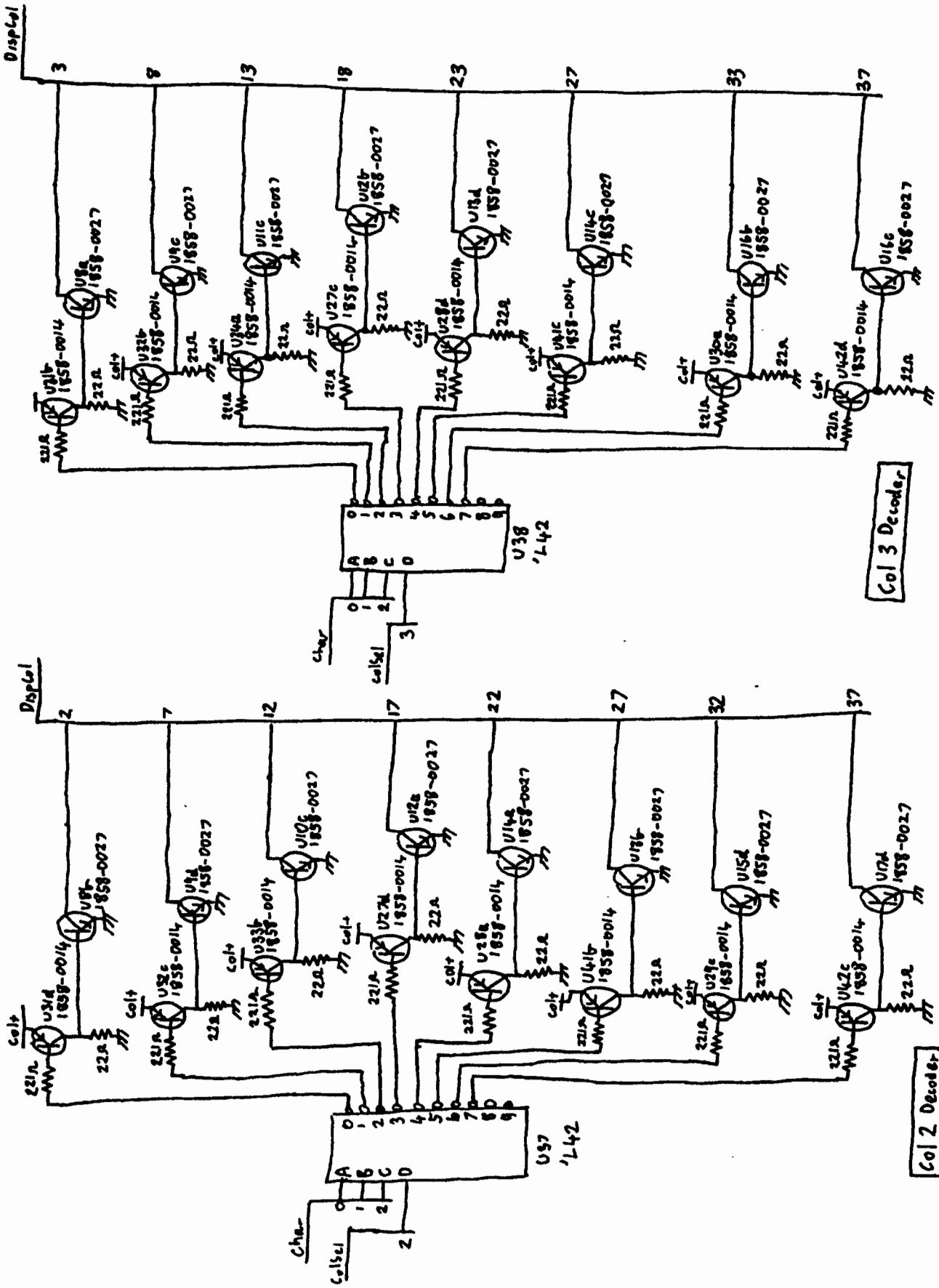




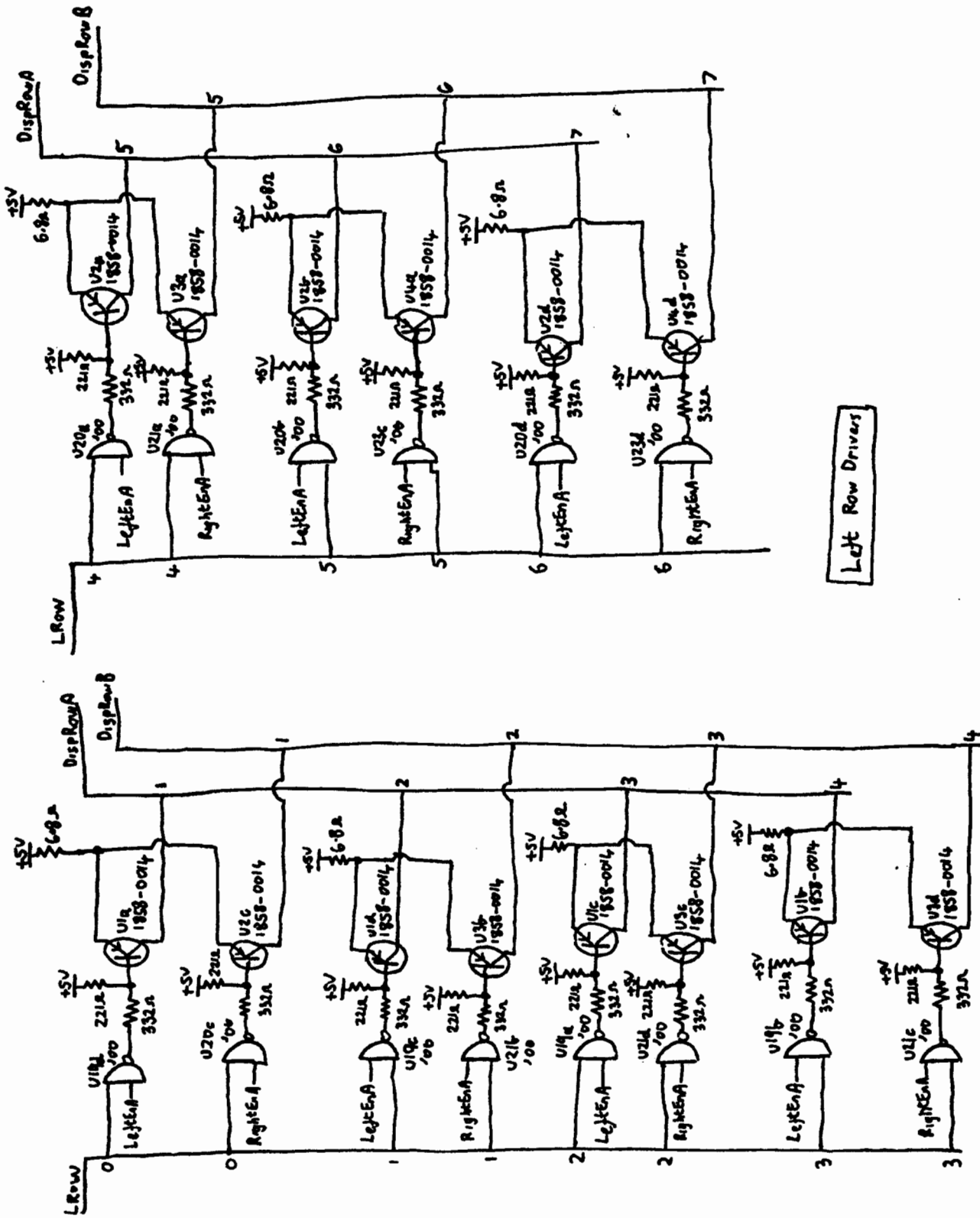
09830-66533

HP 9830 Keyboard Cable

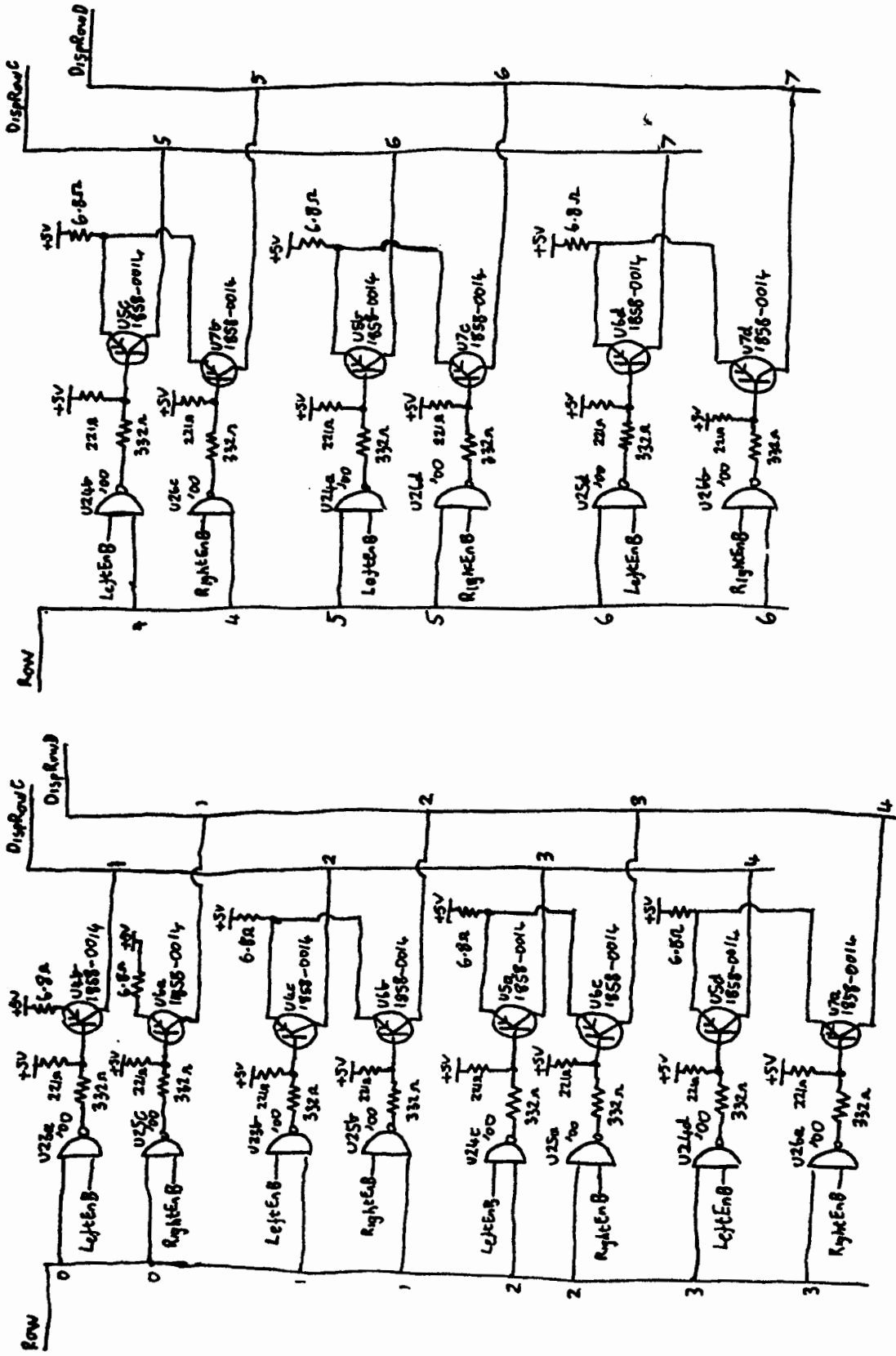




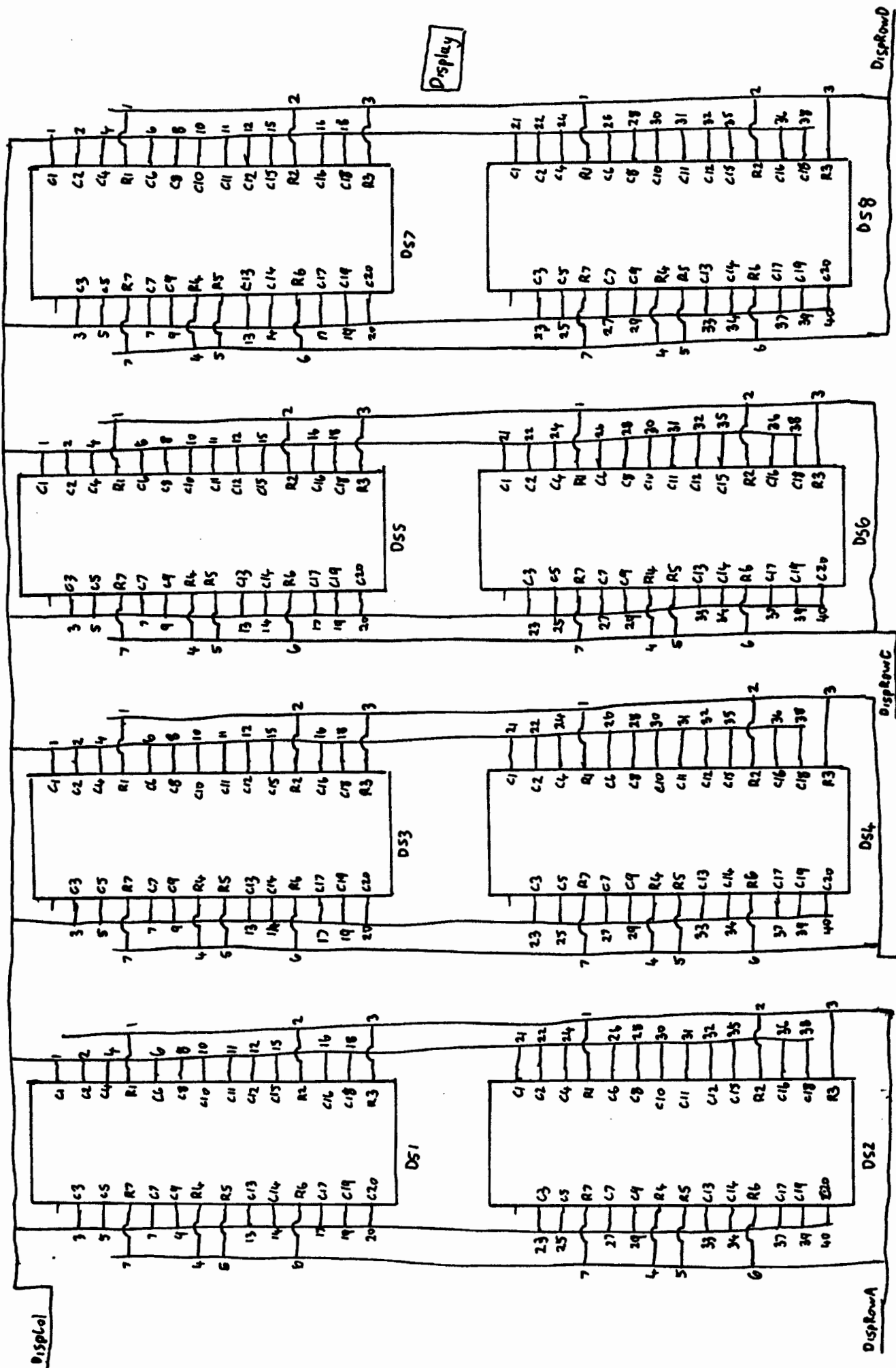


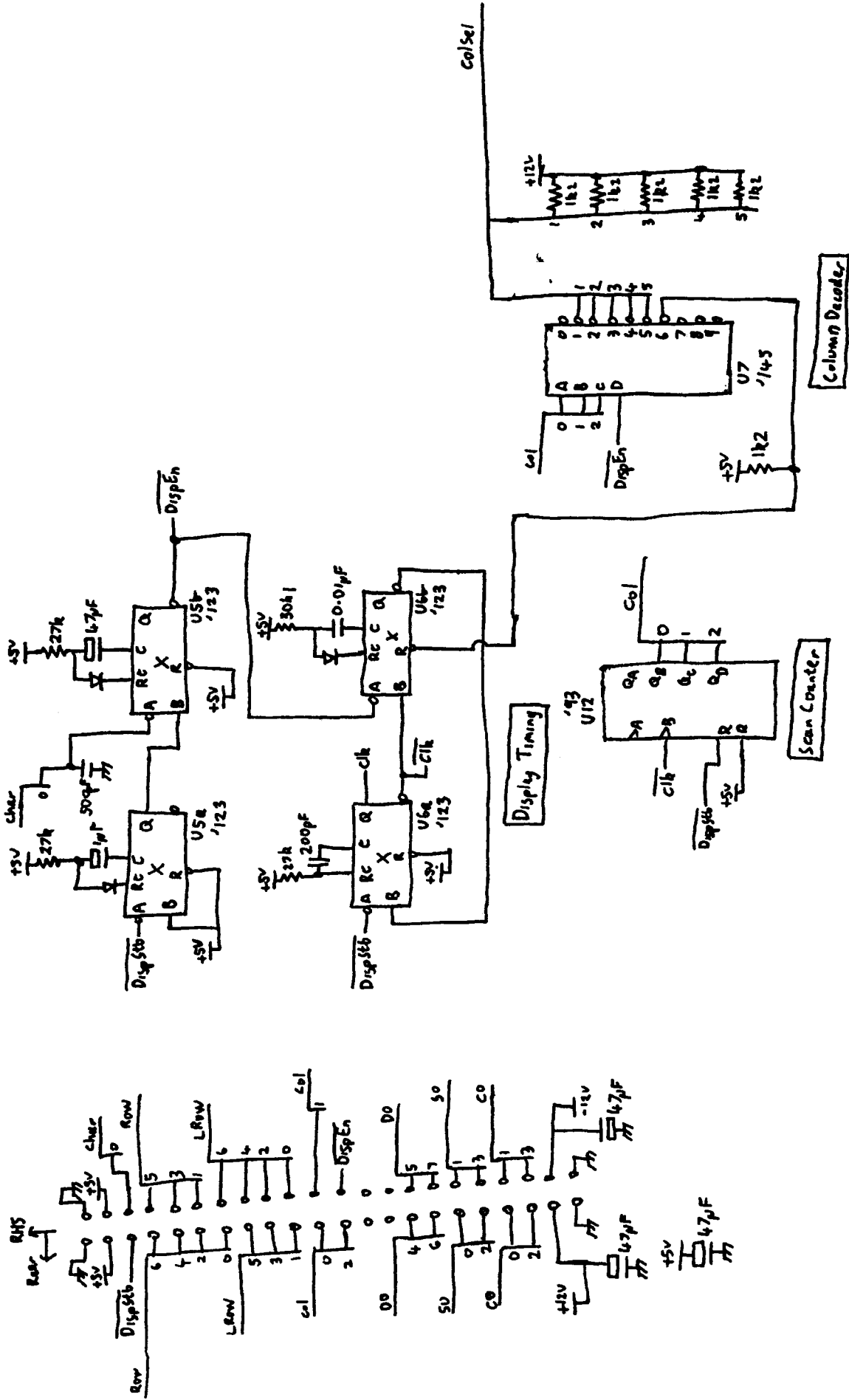


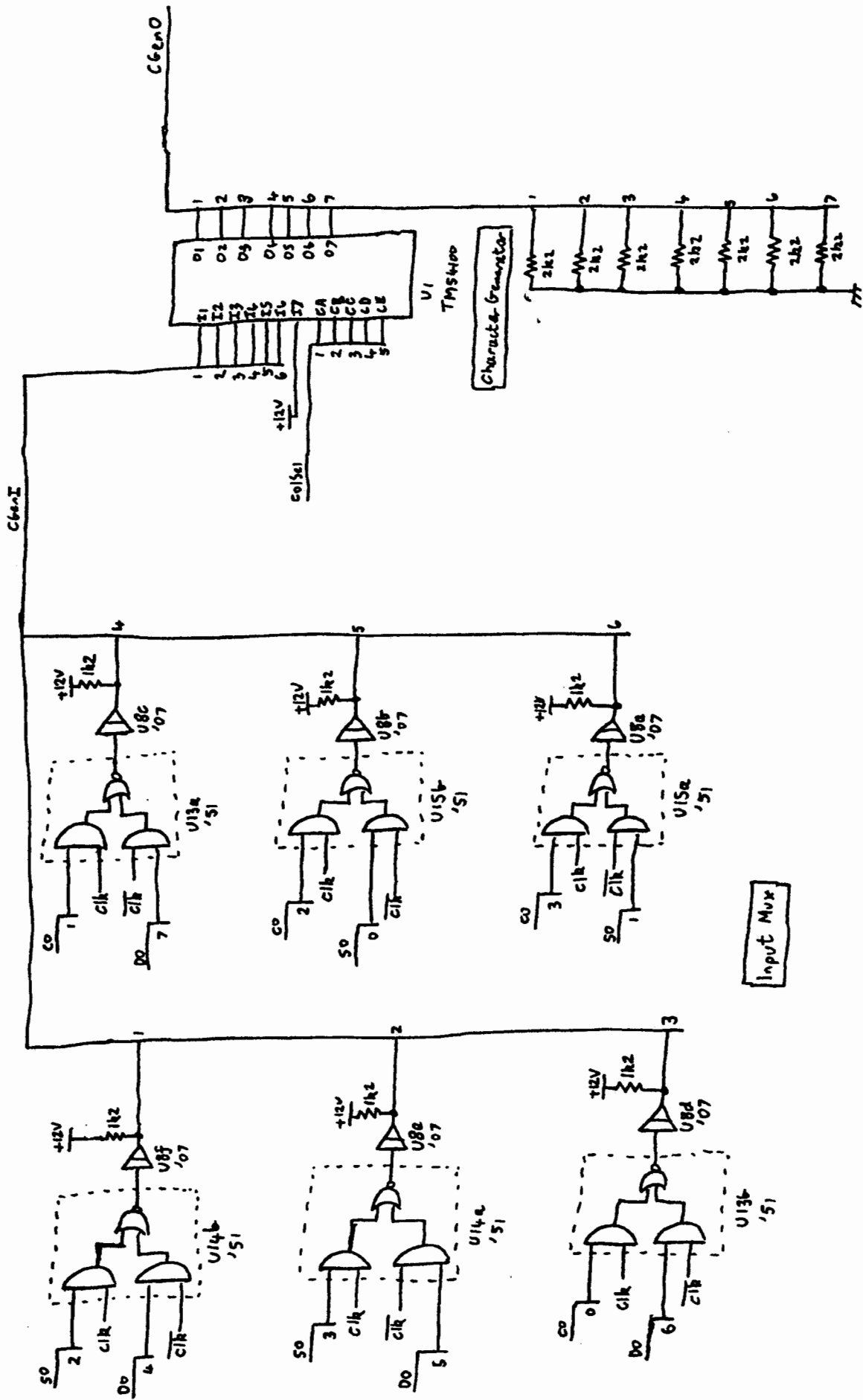
Left Row Drivers

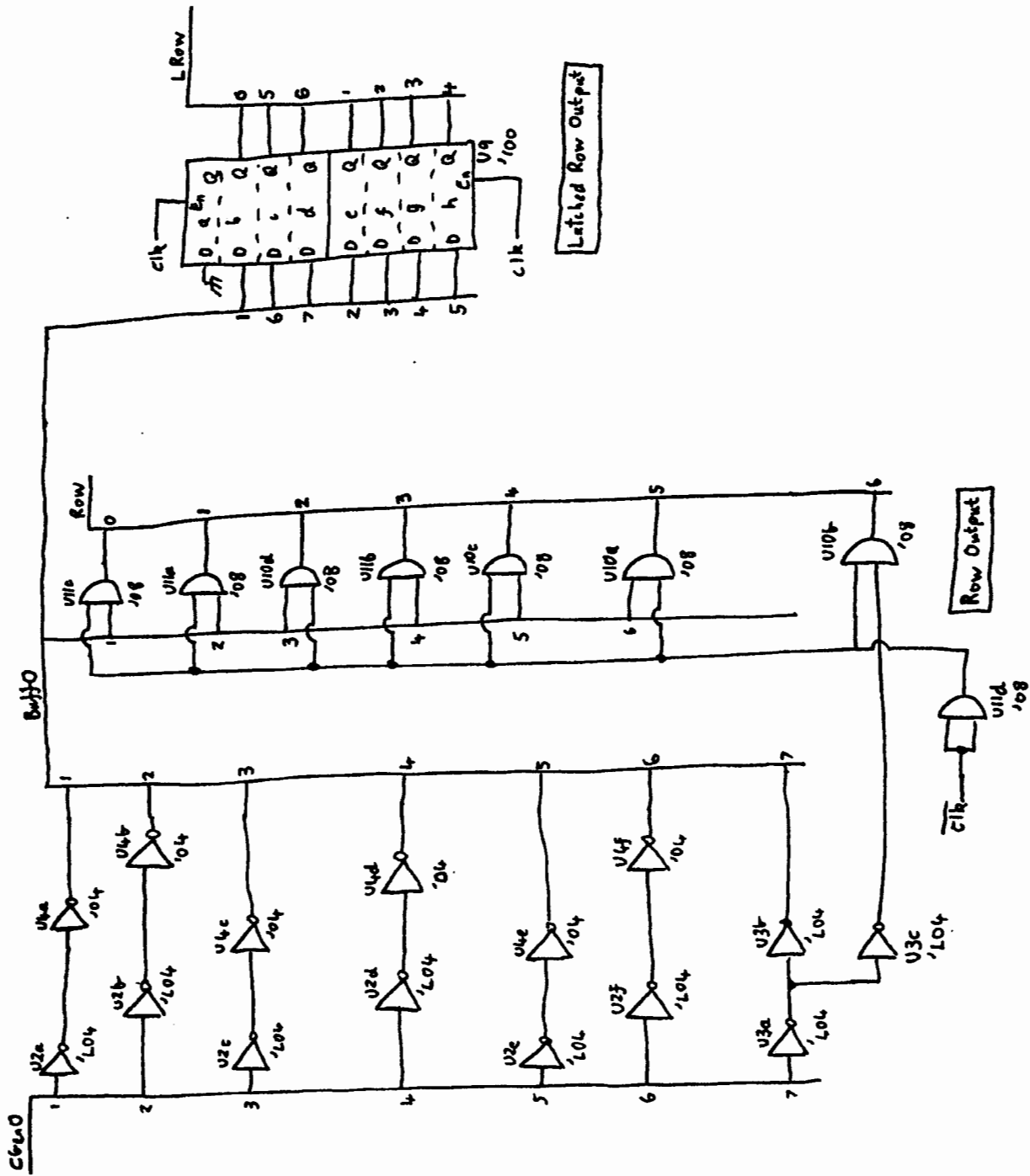


Right Row Drivers



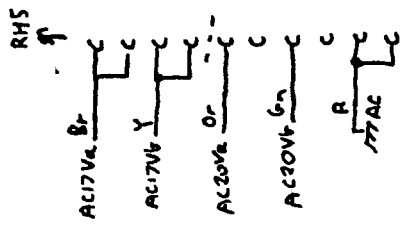
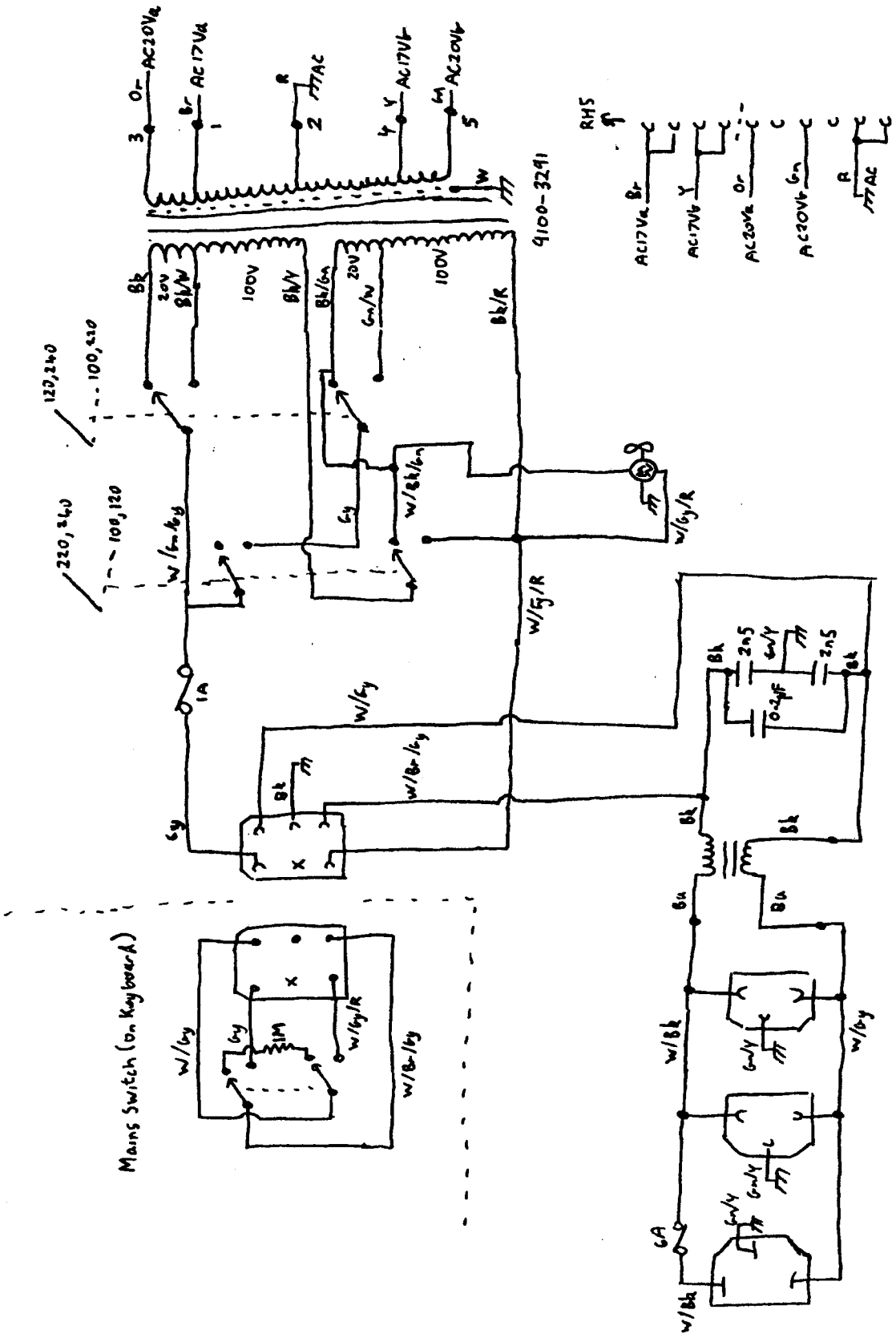






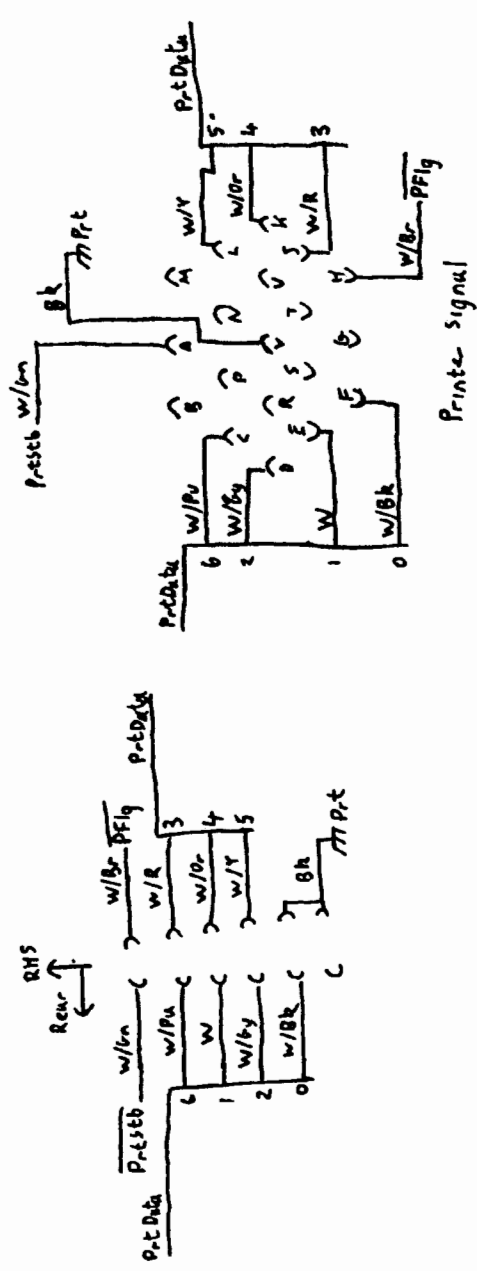
Latched Row Output

Row Output



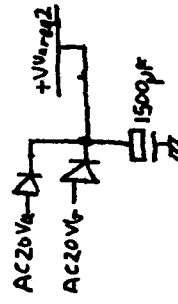
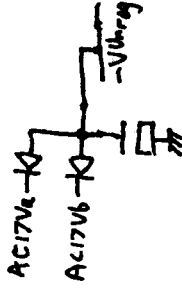
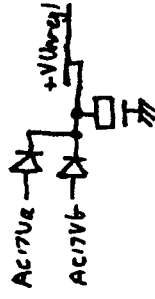
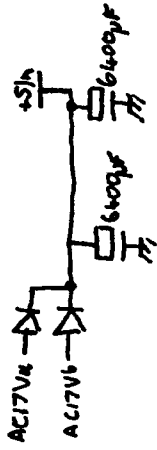
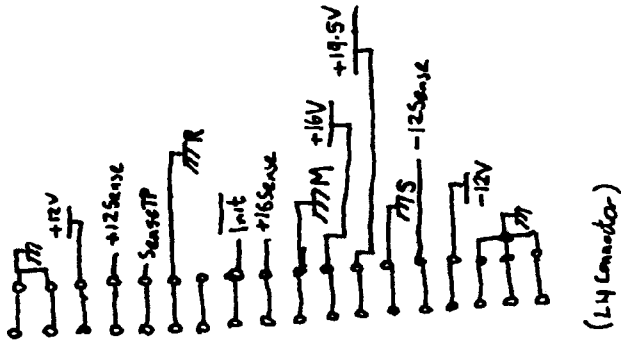
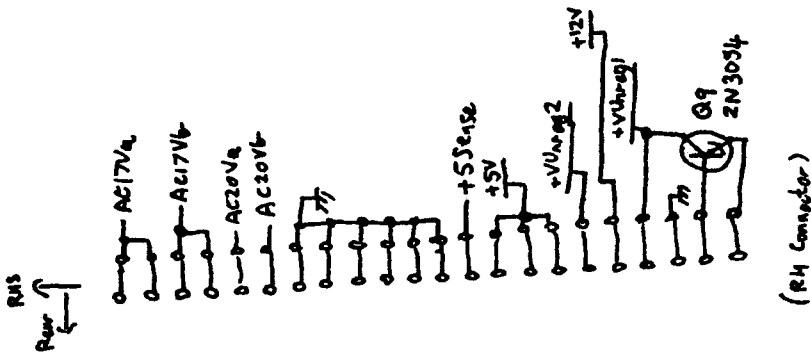
(To Main Backplane)

Mains Transformer

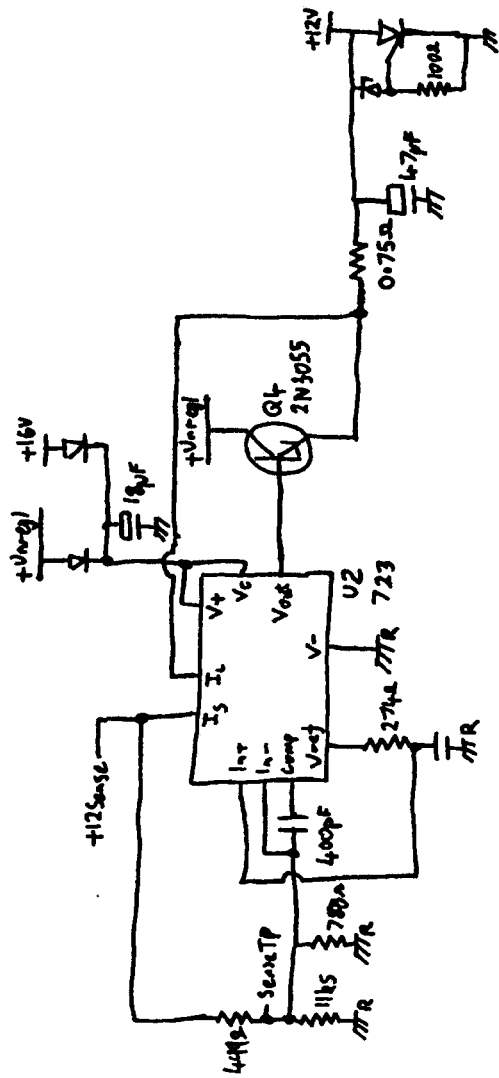


9866 Printer Connector

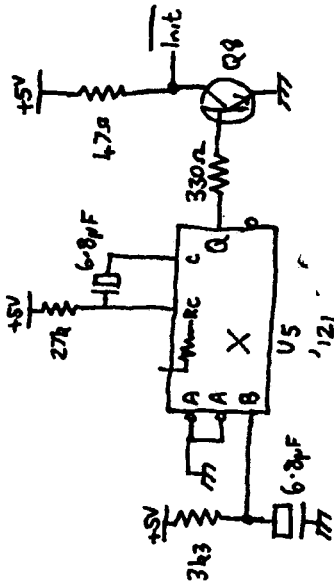




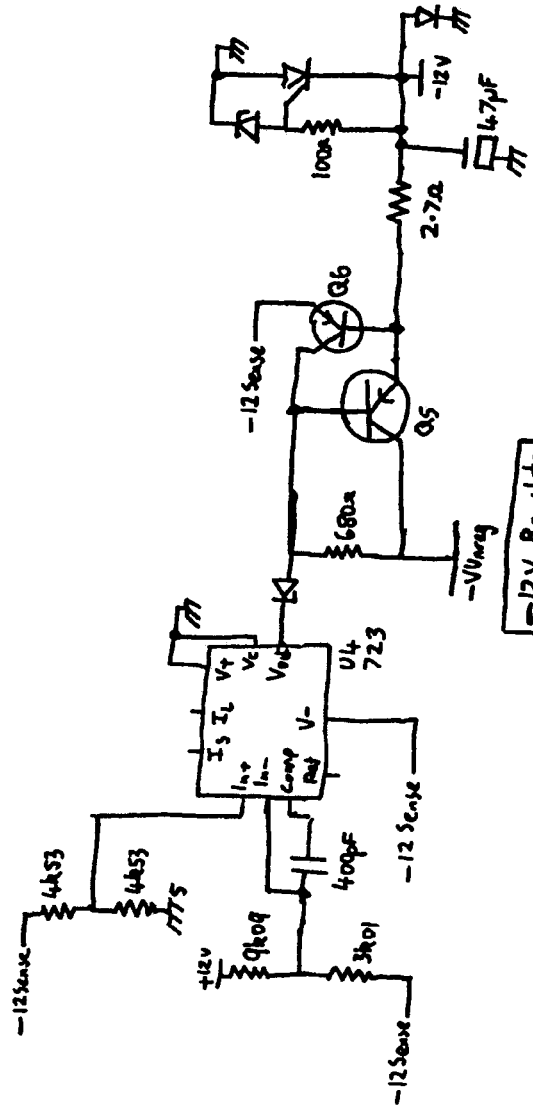
Rectifiers



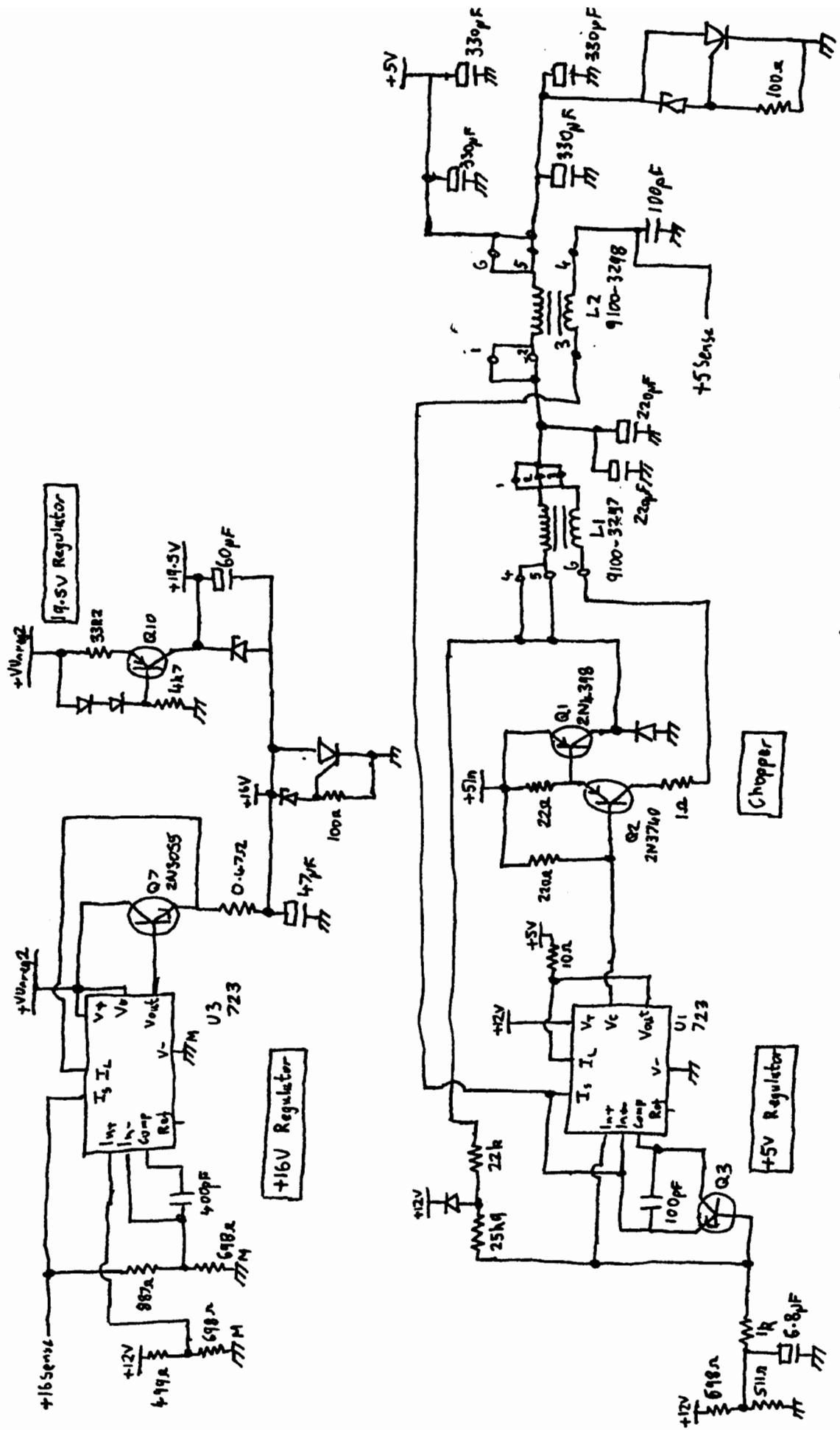
+12V Regulator

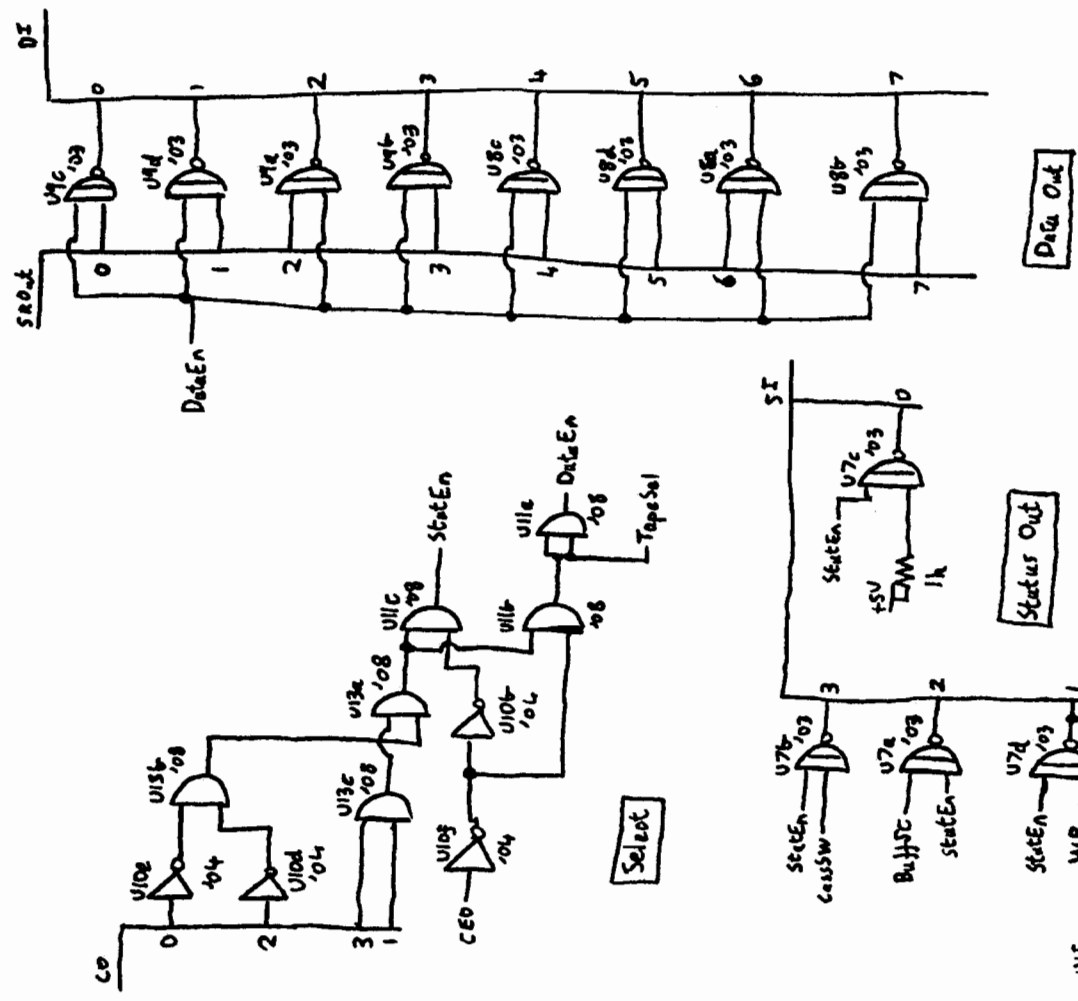
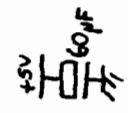
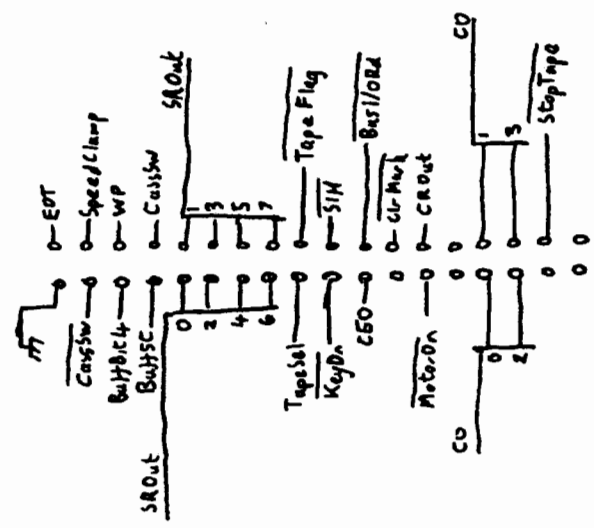
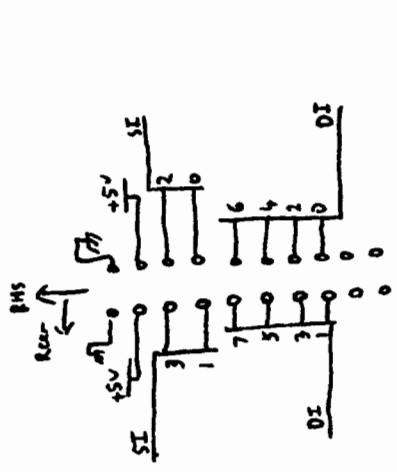


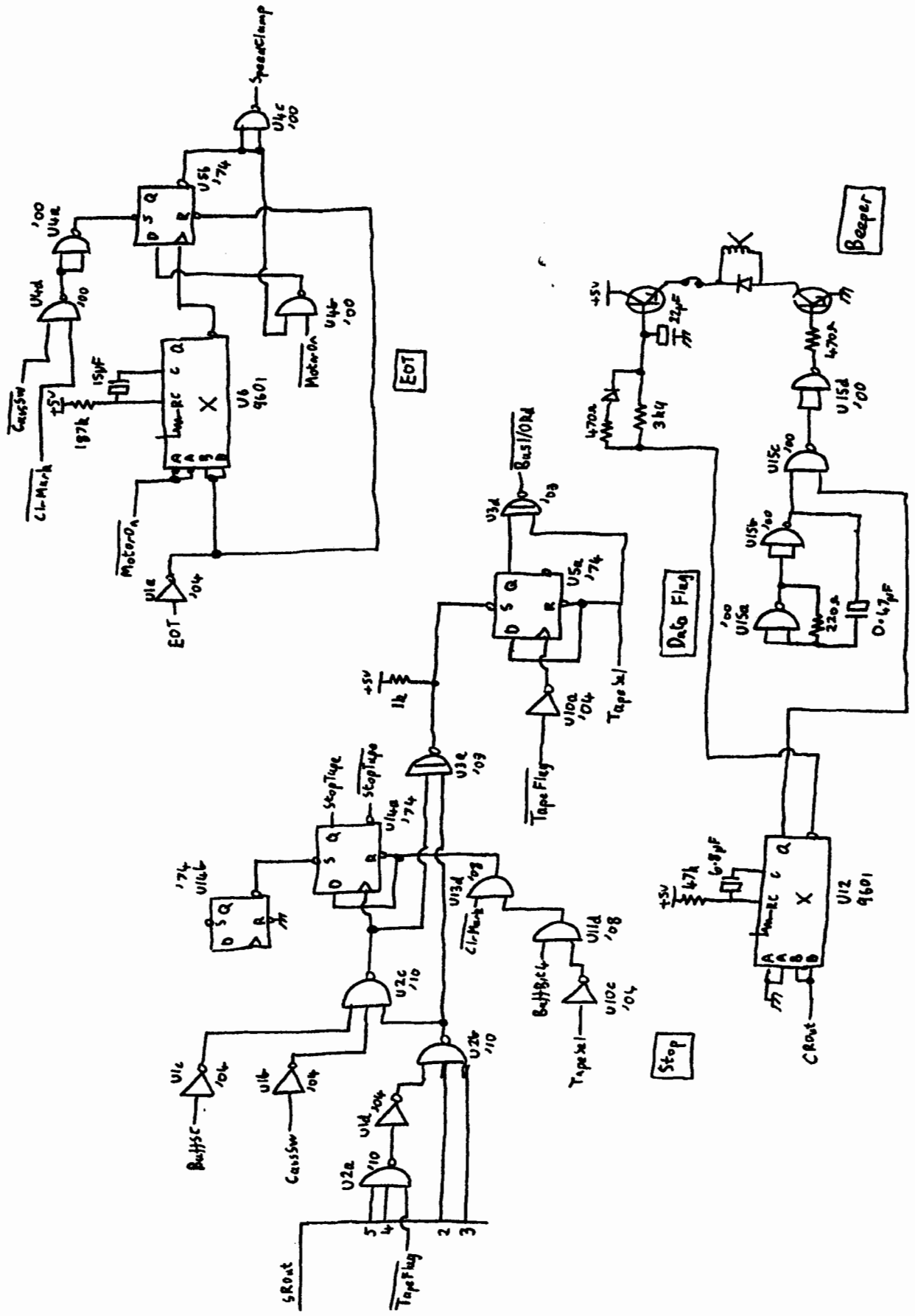
Limit



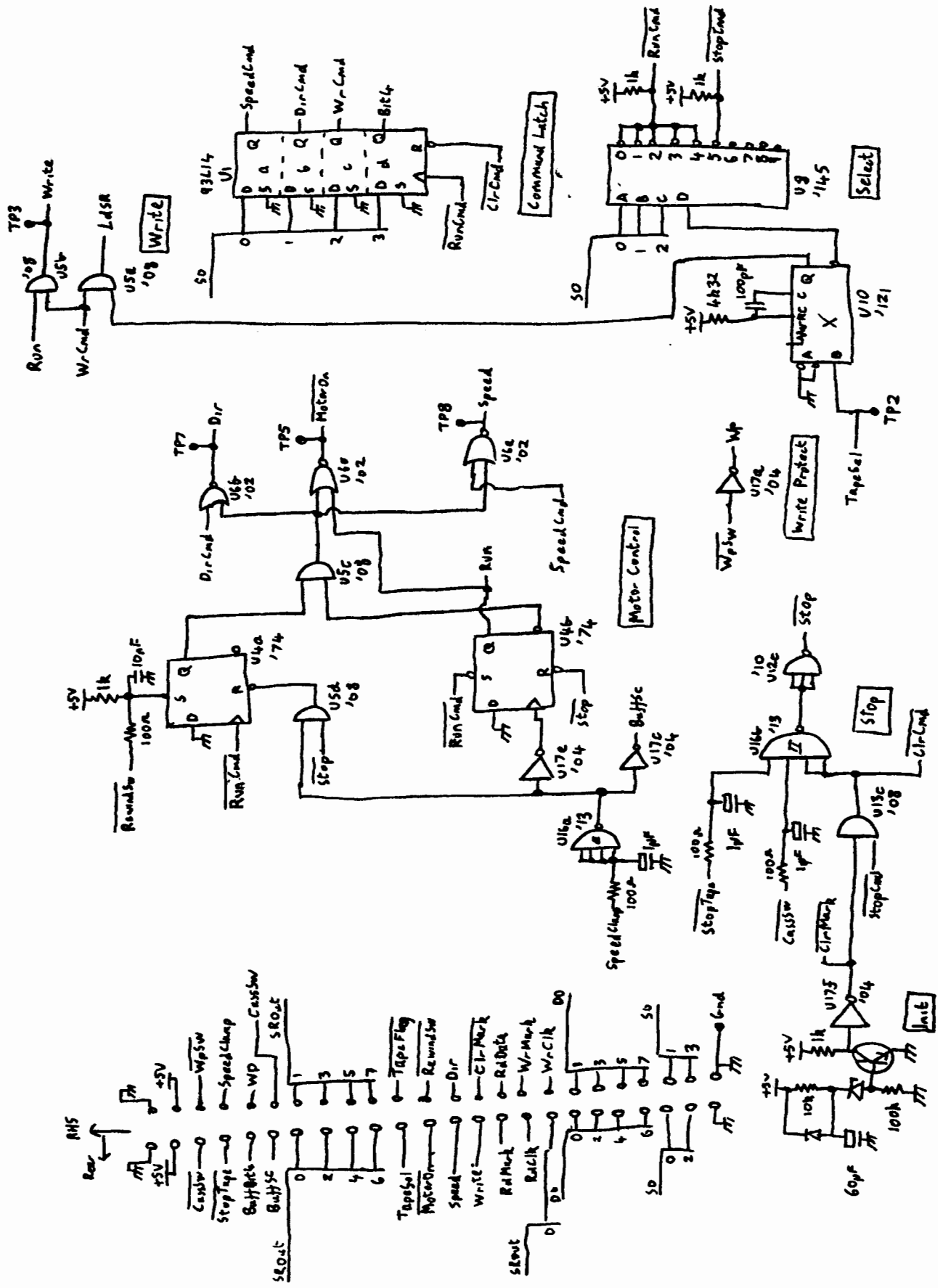
-12V Regulator





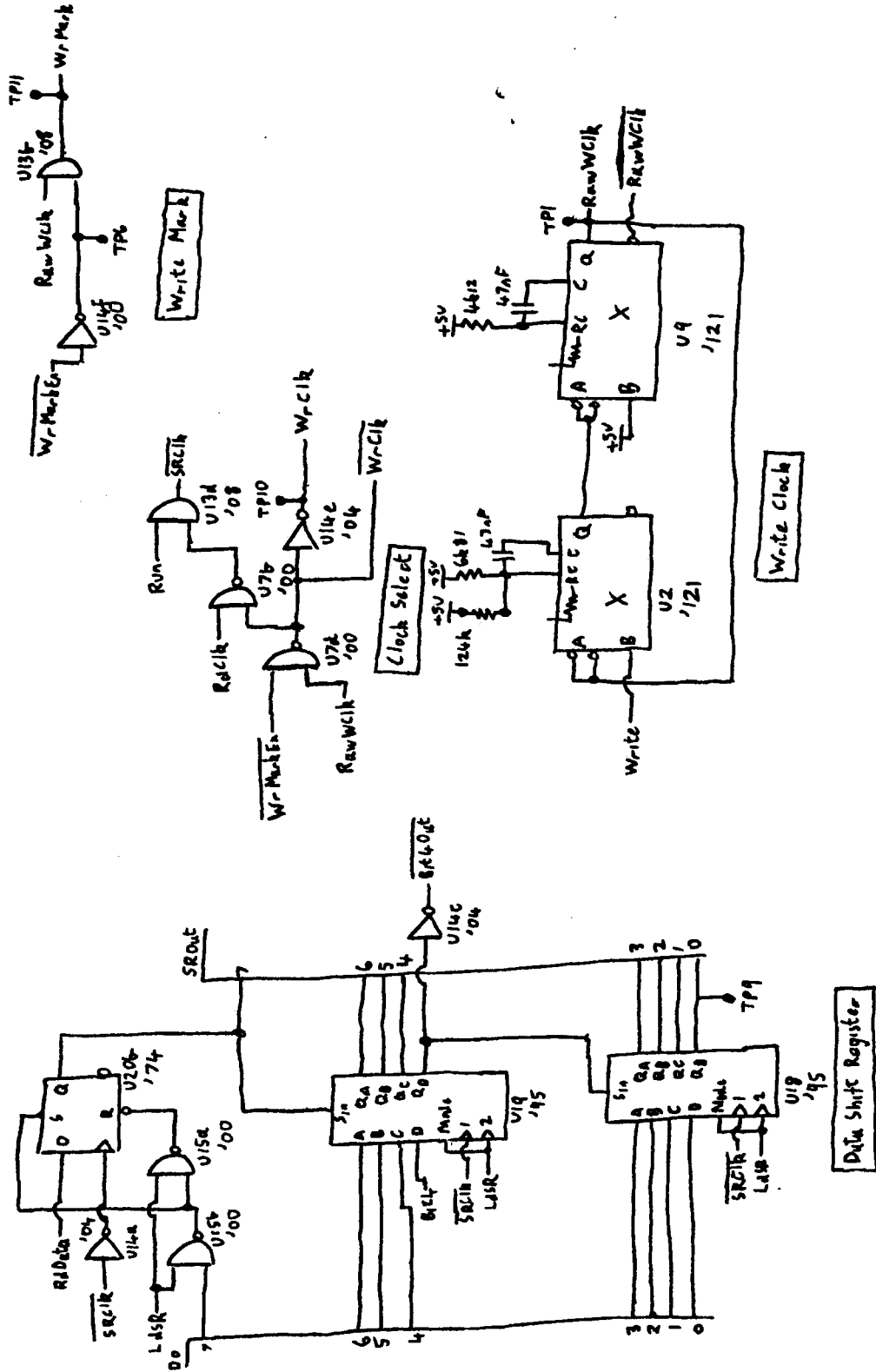


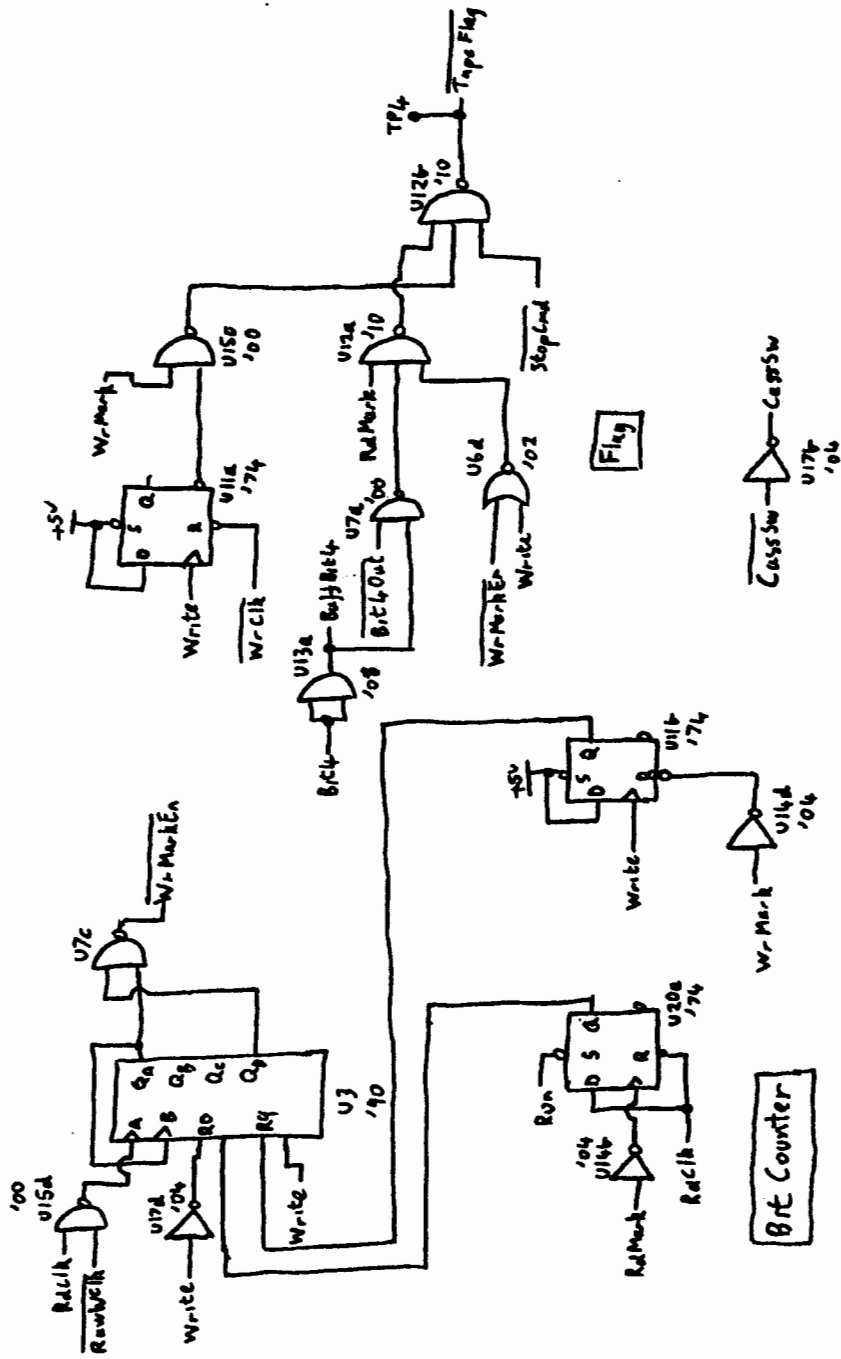
HP 9830 Tape Interface PCB Sheet 2 (Rev/B) 09830-6651



09865-66562

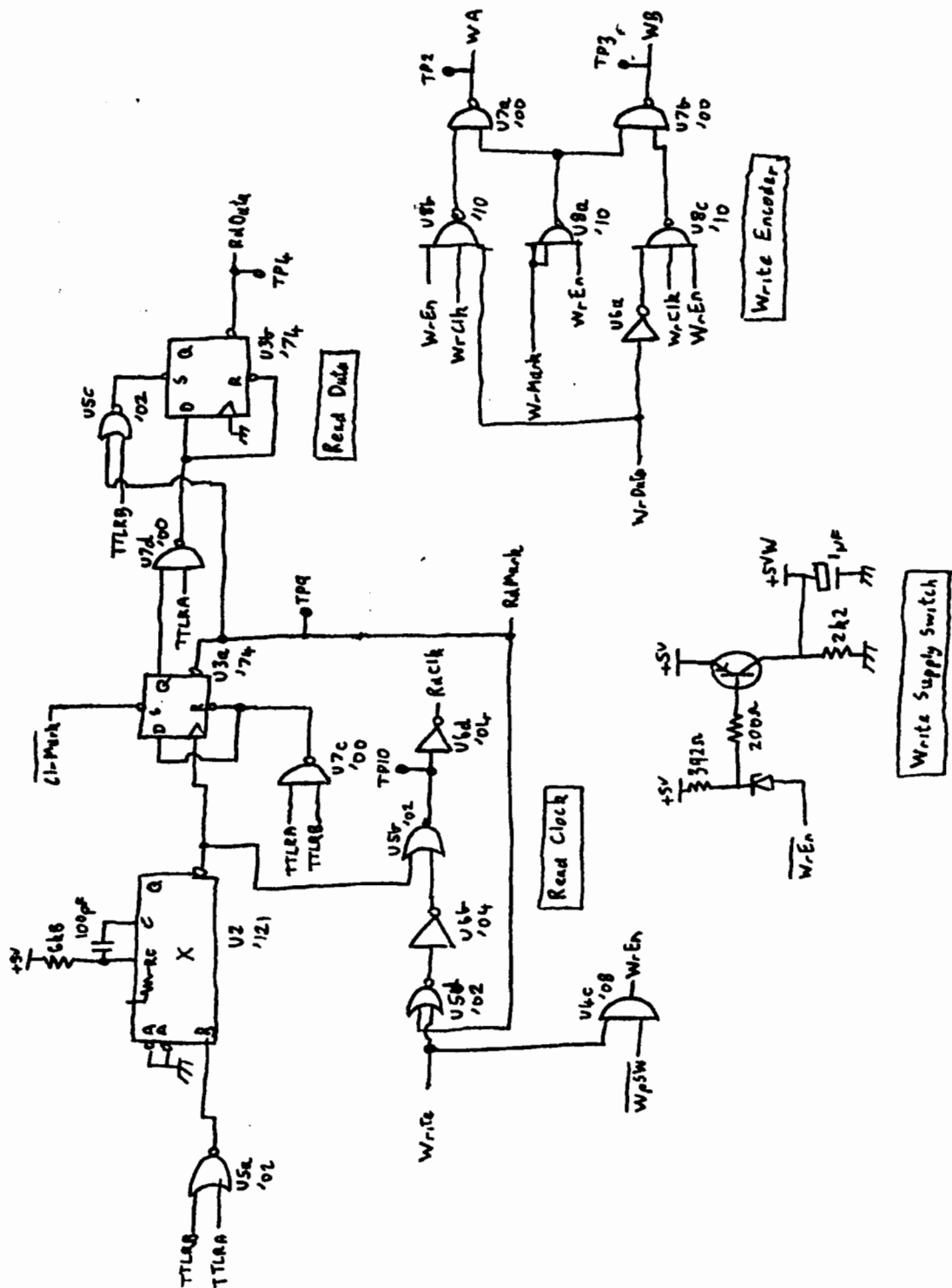
HP9830 Tape Controller PCB sheet 1 (Bu/R)

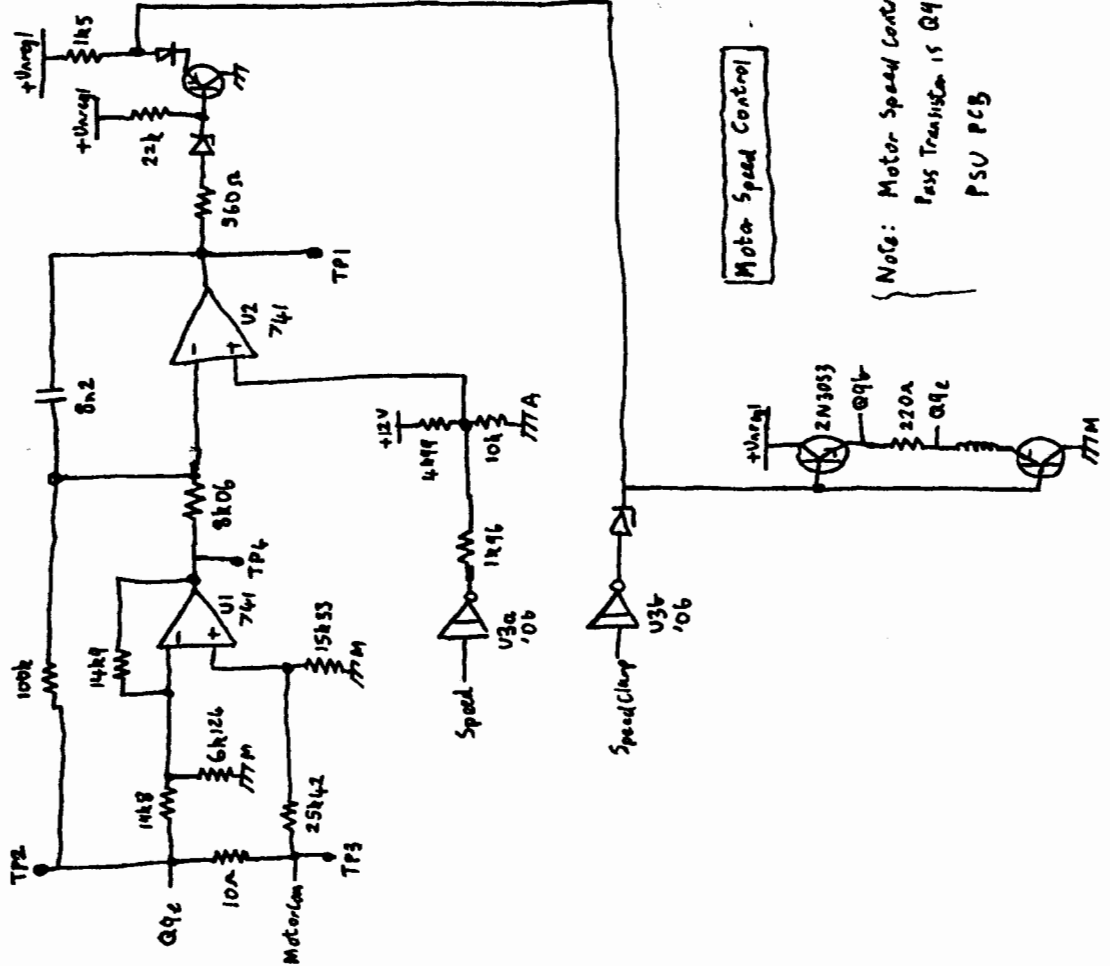






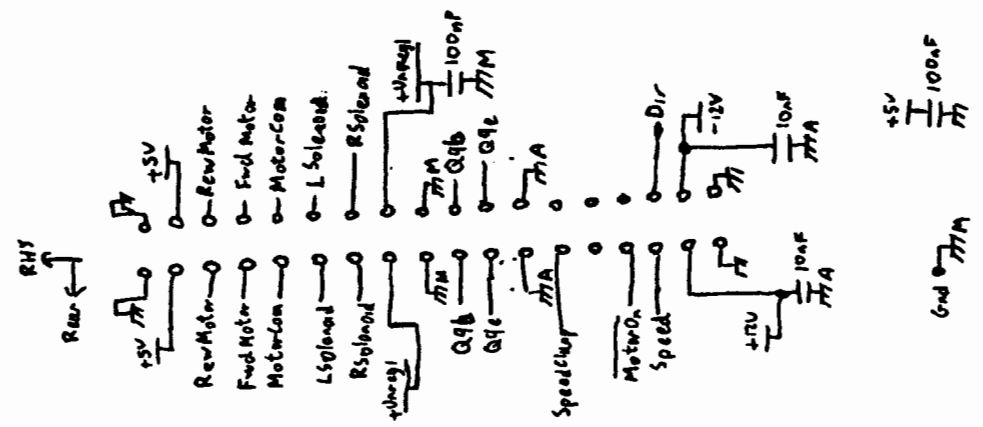


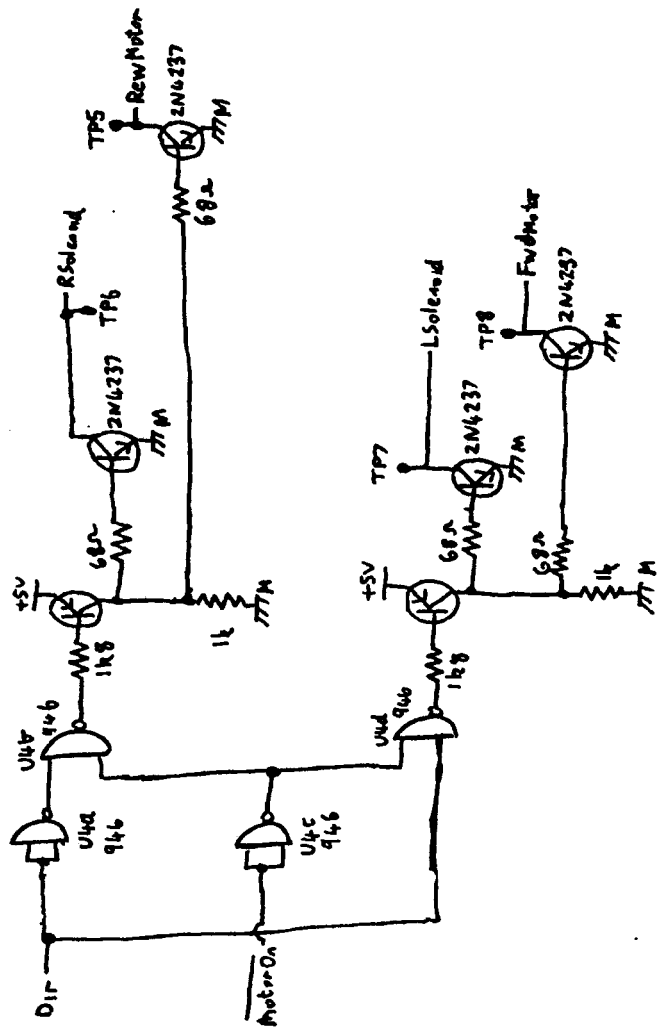




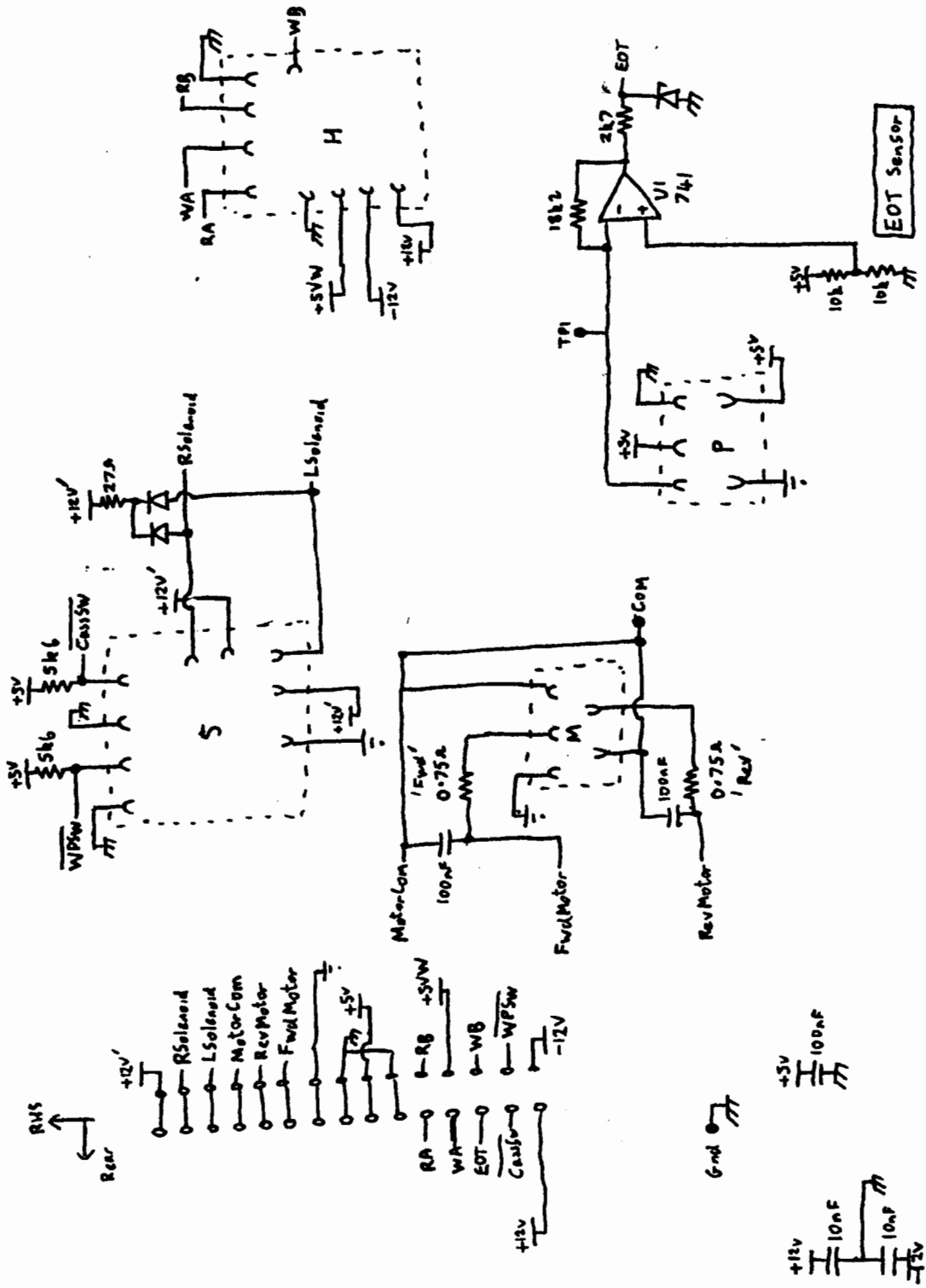
Motor Speed Control

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



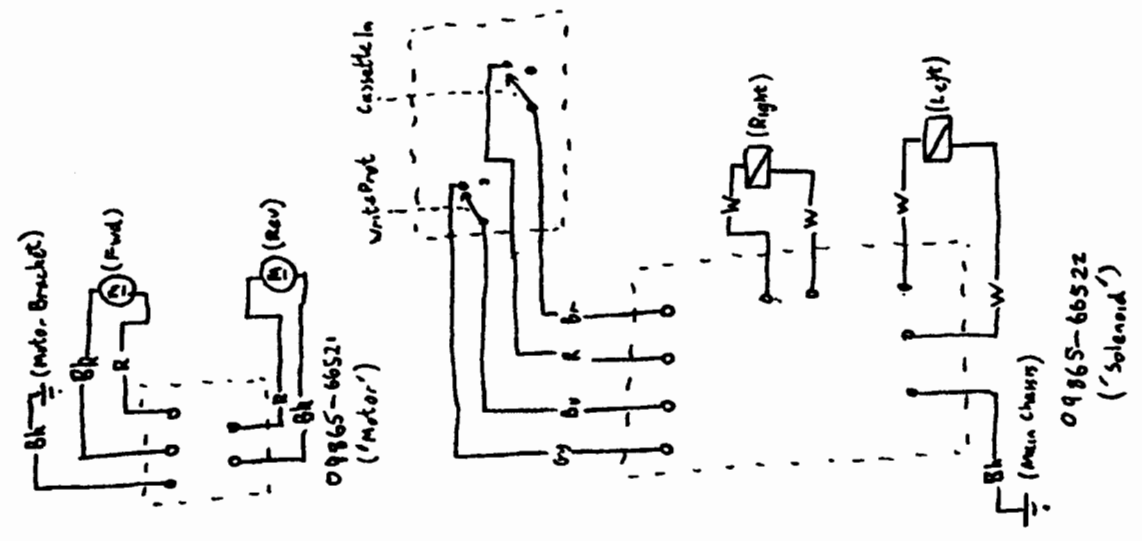
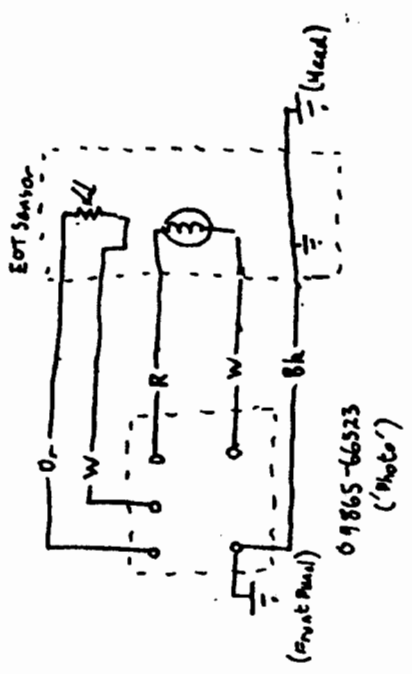


Direction Control

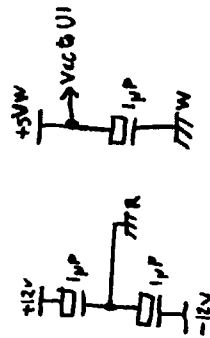
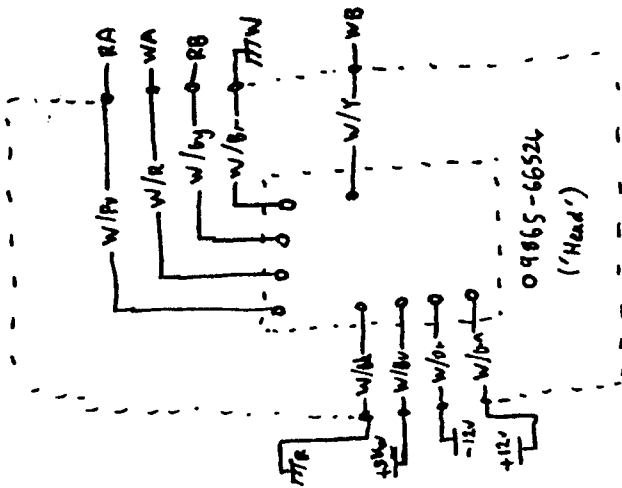
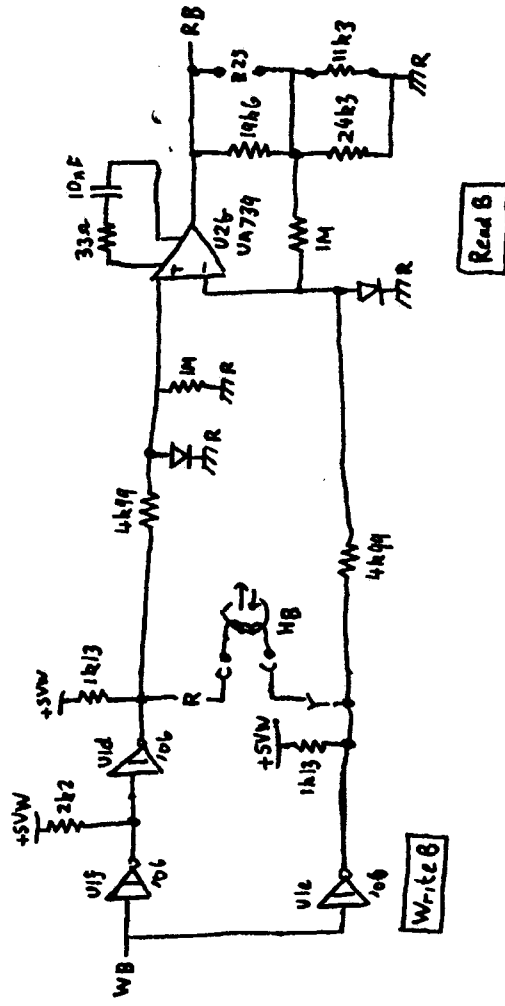
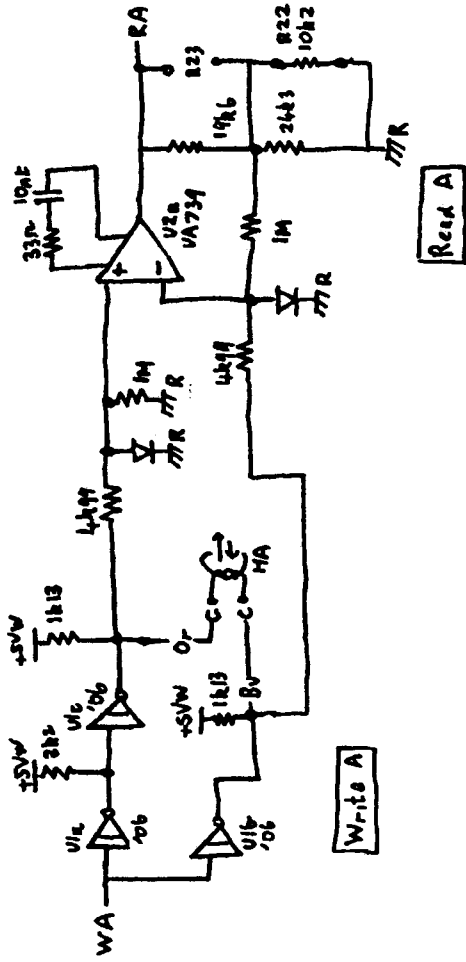


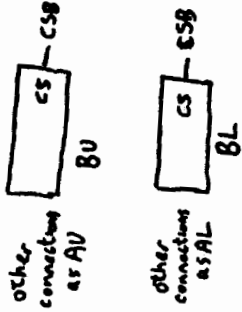
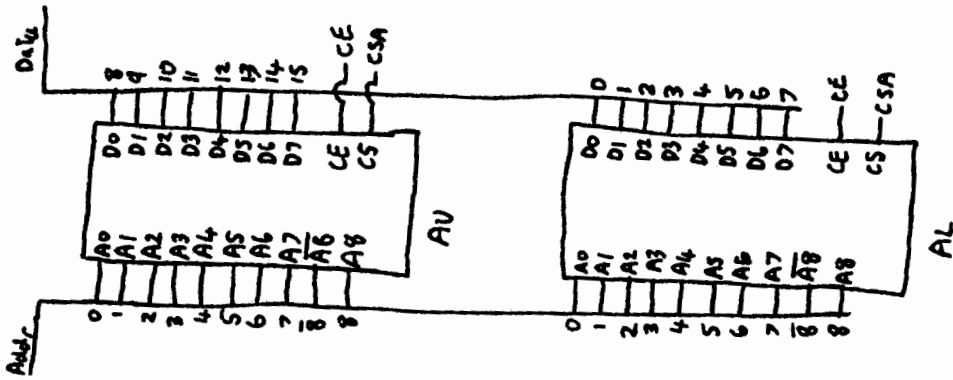
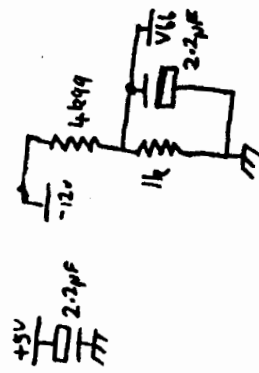
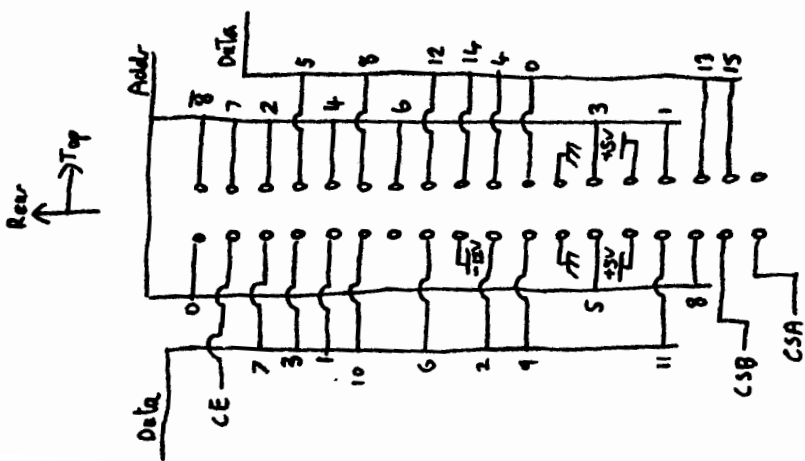
09830-66565

HP4830 Tape Drive Connector PCB



HP9830 Tape Drive Wiring





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