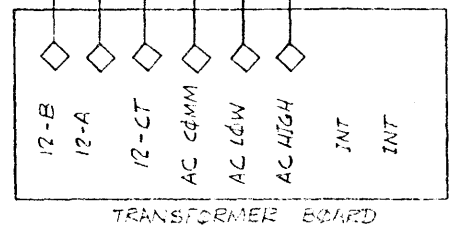
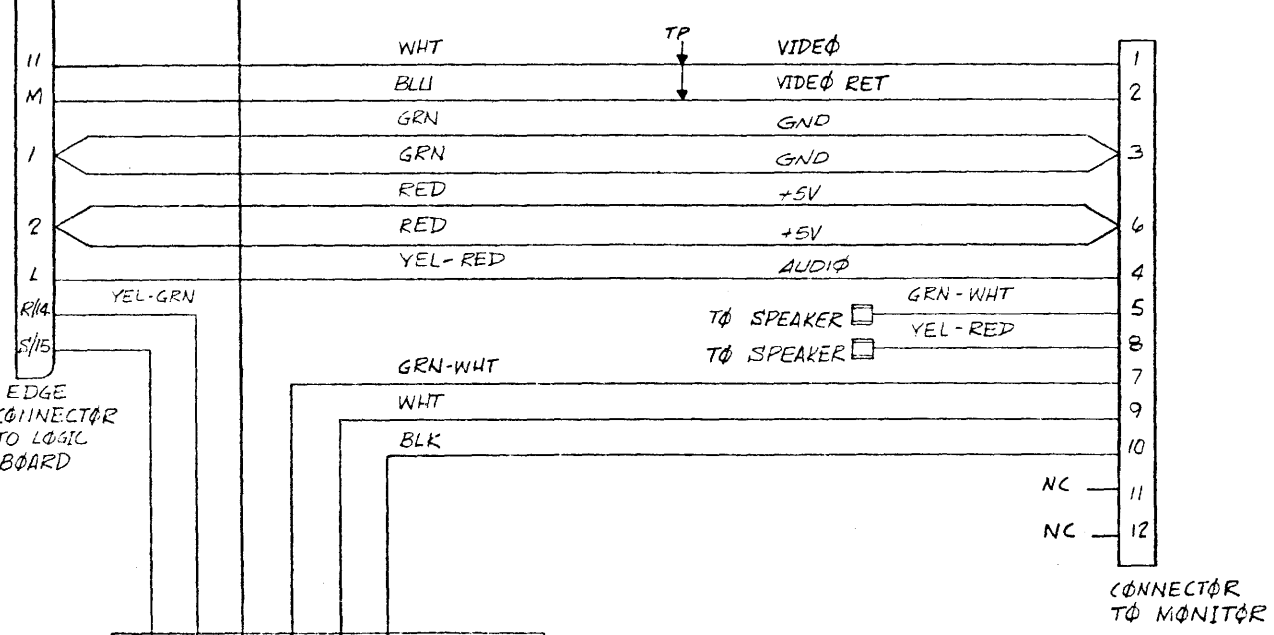
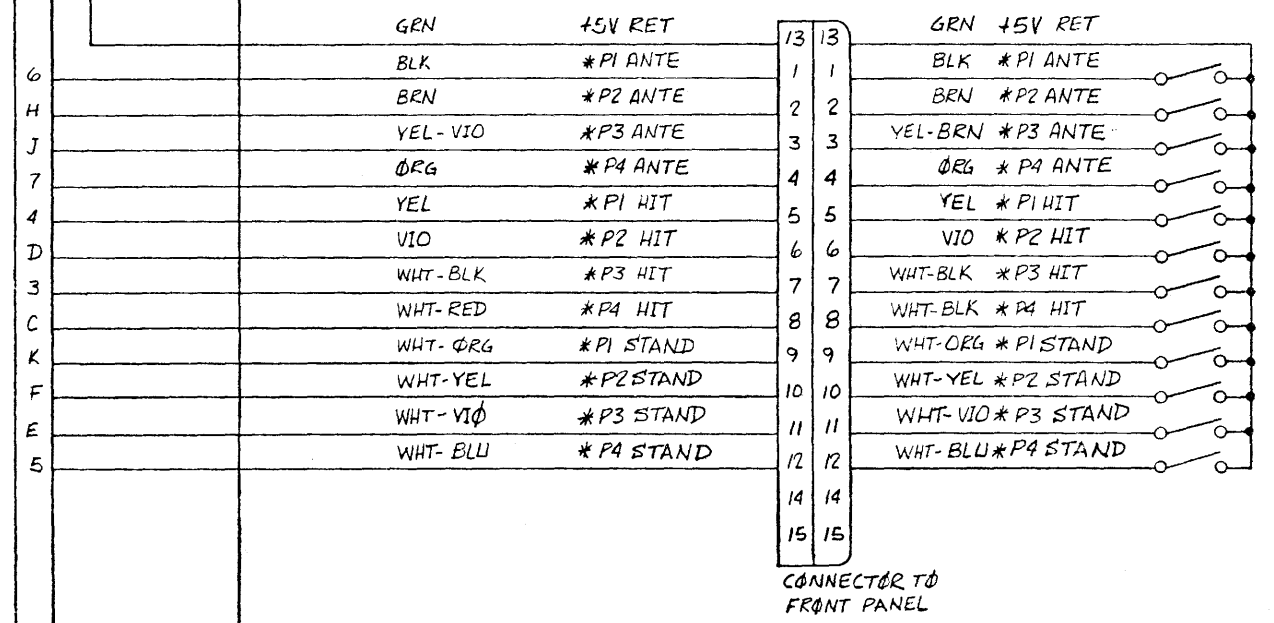
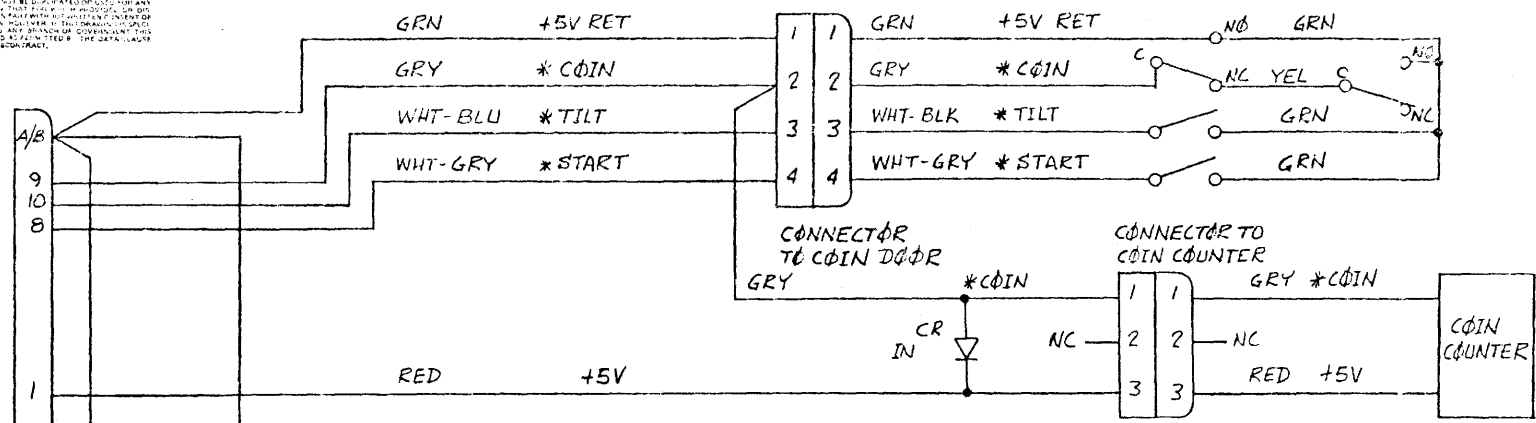


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REVISIONS			
LTR	DESCRIPTION	APVD	DATE



LEGEND
 ◇ = SPADE LUG
 □ = SLIP ON LUG

QTY	PART NO.	ITEM DESCRIPTION	ITEM NO.

LIST OF MATERIALS			

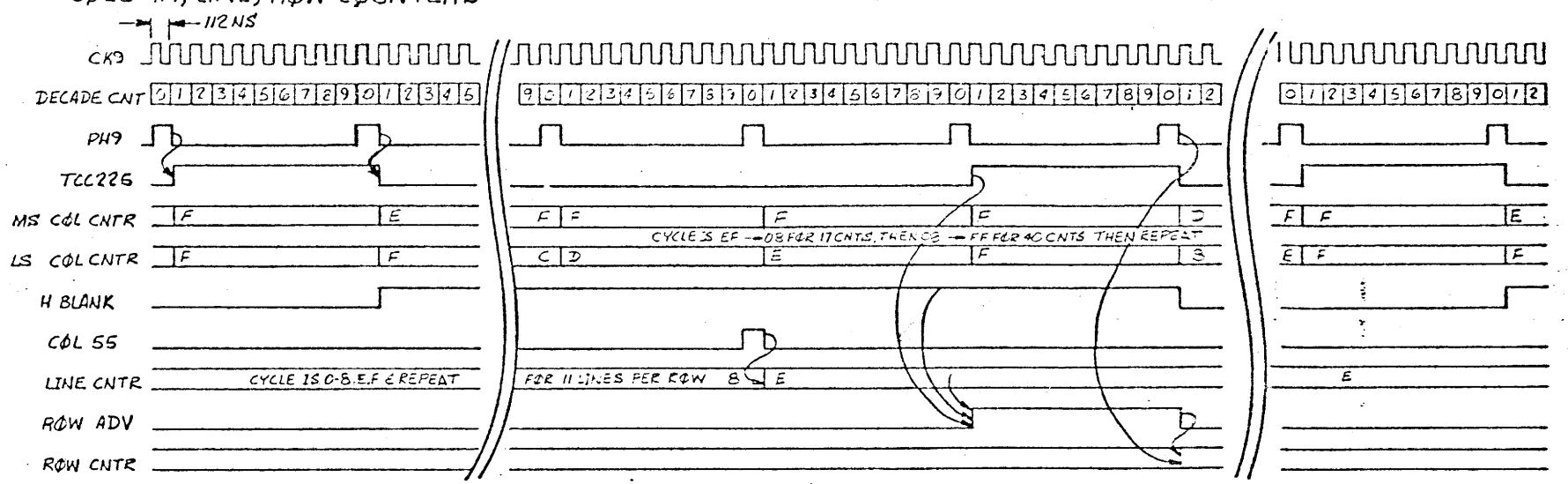
TOLERANCES		DO NOT SCALE DRAWING	
UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS & BREAK ALL SHARP EDGES.	OWN	T. RYLLFSTED	DATE
MATL	CHK		
FINISH	ENG		
NEXT ASSY	APVD		

RAMTEK	
WIRING DIAGRAM, HIT ME	
SCALE	DWG NO. 350750
SHT 10-1	REV.

8 7 6 5 4 3 2 1

REVISIONS			
REV	DESCRIPTION	APVD	DATE
B	RELEASE FOR PRD.		
C	RELEASE FOR PRD.		

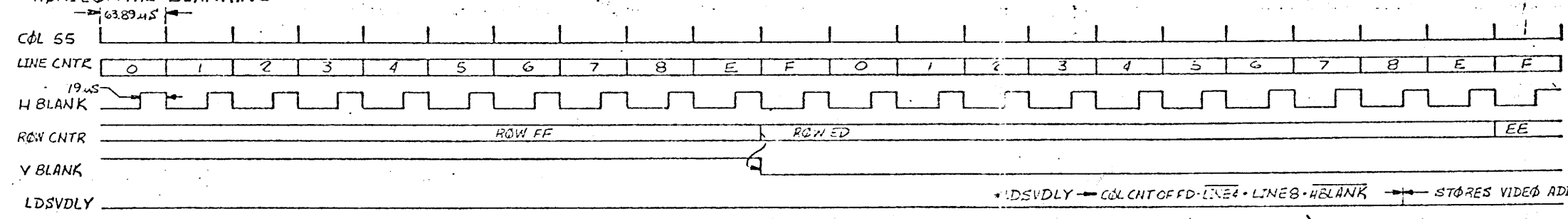
COLUMN, LINE, ROW COUNTERS



COLUMN COUNTER EF - (17 CNTS) - 08 - (40 CNTS) - EF
 LINE COUNTER 0-8, E, F (11 LINES/ROW)
 ROW COUNTER FB - (5 CNTS) - ED - (19 CNTS) - FB
 H BLANKING V BLANKING
 VISIBLE COLUMNS VISIBLE ROWS

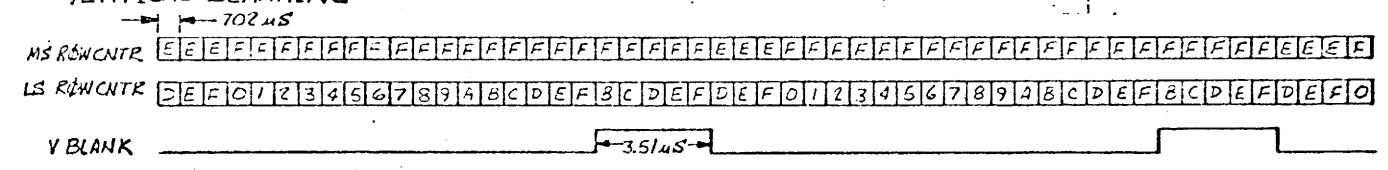
CK9 TIME IS 112NS
 PH9 TO PH9 IS 10X112NS = 1.12μS
 H BLANK TIME IS 1.12X17 = 19.04μS
 VISIBLE COL TIME IS 1.12X40 = 44.80μS
 H BLANK TO H BLANK = 63.94μS
 VERTICAL BLANK TIME IS 5X11X63.84 = 3.51μS
 VERTICAL BLANK TO VERTICAL BLANK IS 24X11X63.84 = 16.87μS

HORIZONTAL BLANKING

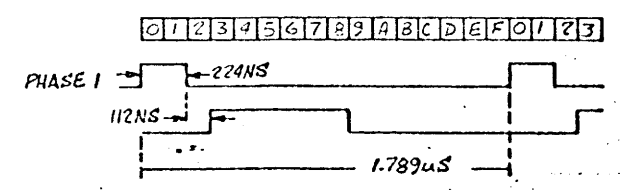


VAC CNTR CNTS EVERY PH9 BUT IS LOADED EVERY COLSS WITH CONTENTS OF VIDEO ADDRESS MEM (DEVICES EK, SJ)

VERTICAL BLANKING



PHASE 1, PHASE 2 TIMING



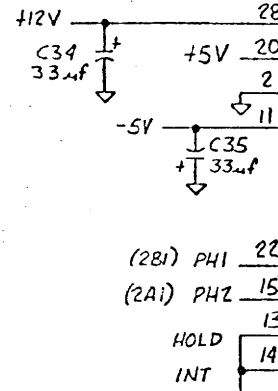
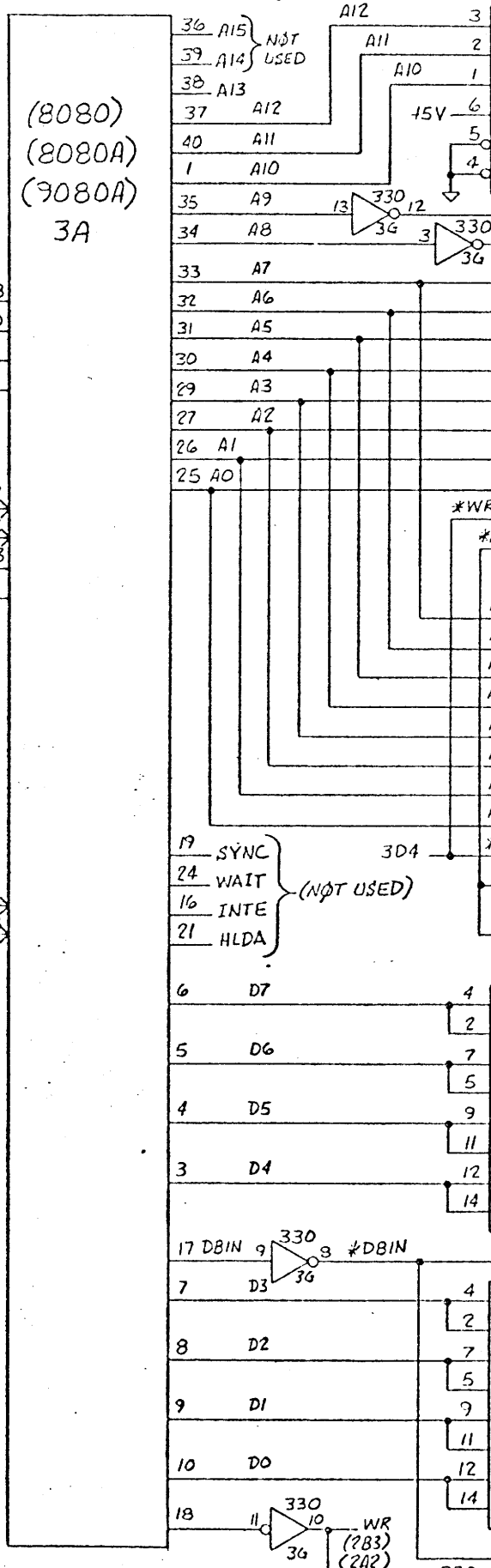
QTY	PART NO	ITEM DESCRIPTION	ITEM NO
LIST OF MATERIALS			
TOLERANCES UNLESS OTHERWISE SPECIFIED REMOVE ALL DIMS & UNLESS ALL SHOWN DIMS		DO NOT SCALE DRAWING	
SIGNATURES		DATE	
OWN	T. HILLETED	4-27-73	
CHK			
ENG	J. A. HARRIS	4-15-73	
FINISH			
NEXT ASSY		SCALE	SWG NO
		1/1 OF 5	550594
			REV C

8 7 6 5 4 3 2 1

NOTE: SIGNALS AD THRU A13 GO TO FRM MEMORY & FRM DECODE ON SHT 5 (DEVICES 7A THRU 7G)

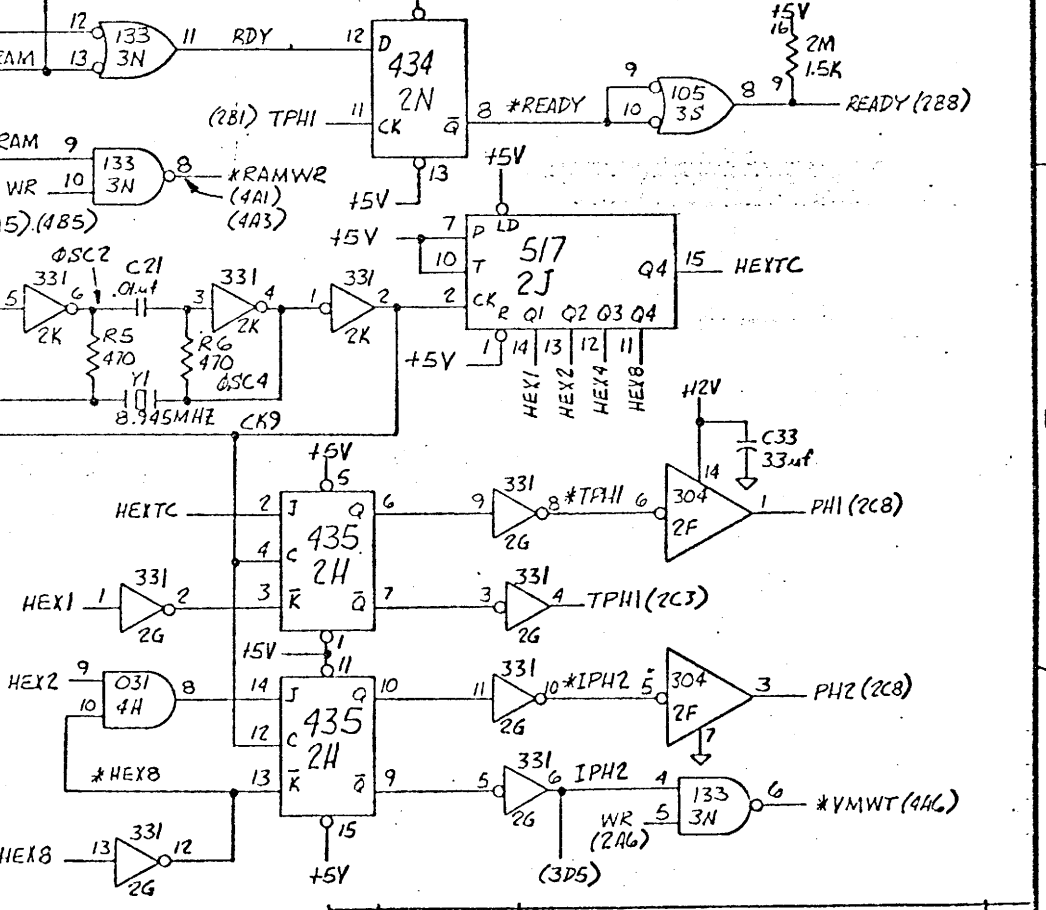
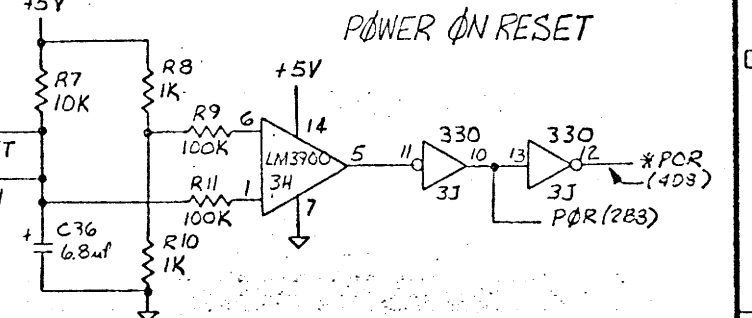
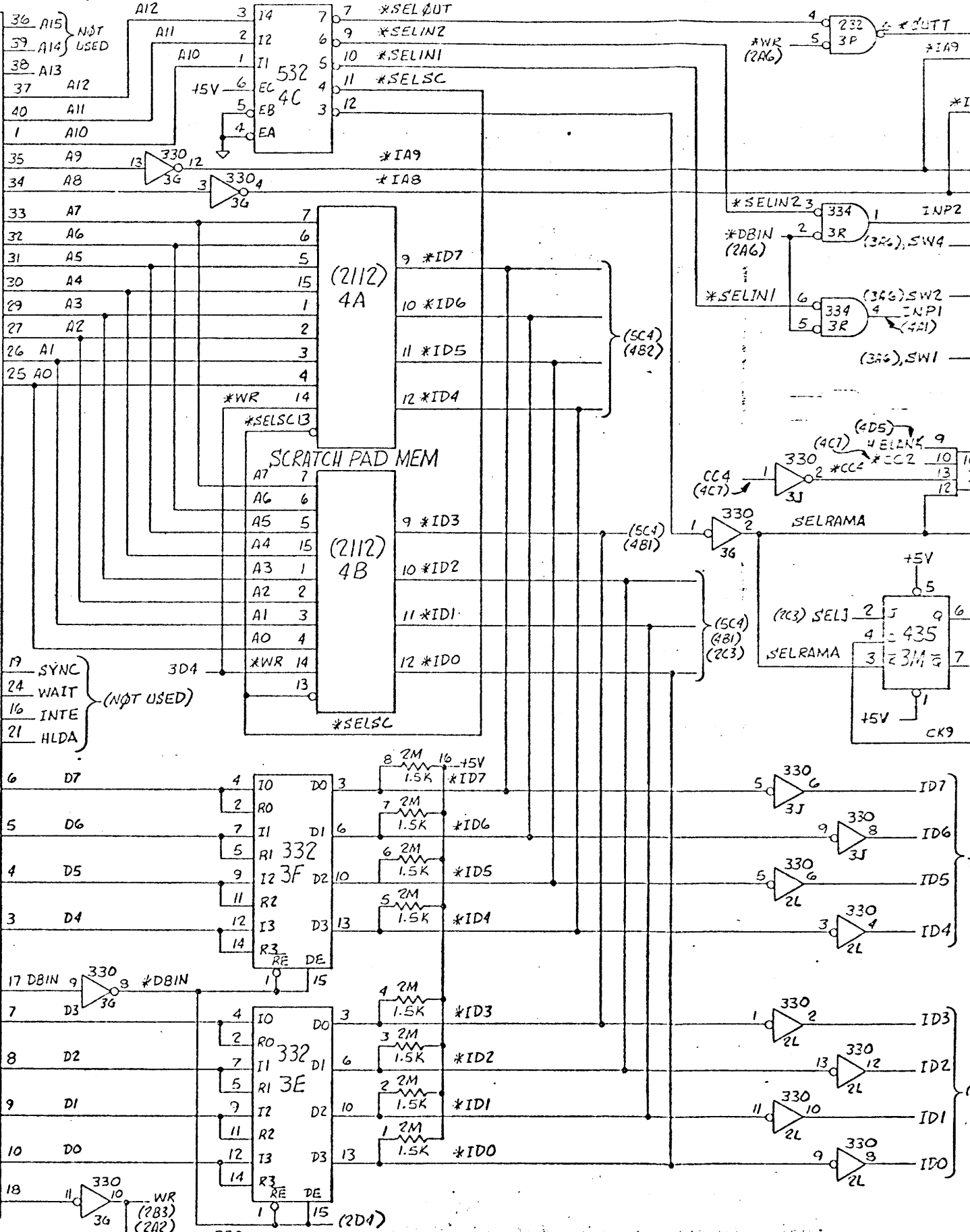
REVISIONS		
REV	DESCRIPTION	DATE
SEE SHT 1 FOR REVISIONS		

(8080)
(8080A)
(8080A)
3A



I/O ADDRESS DECODE

SCRATCH PAD MEM

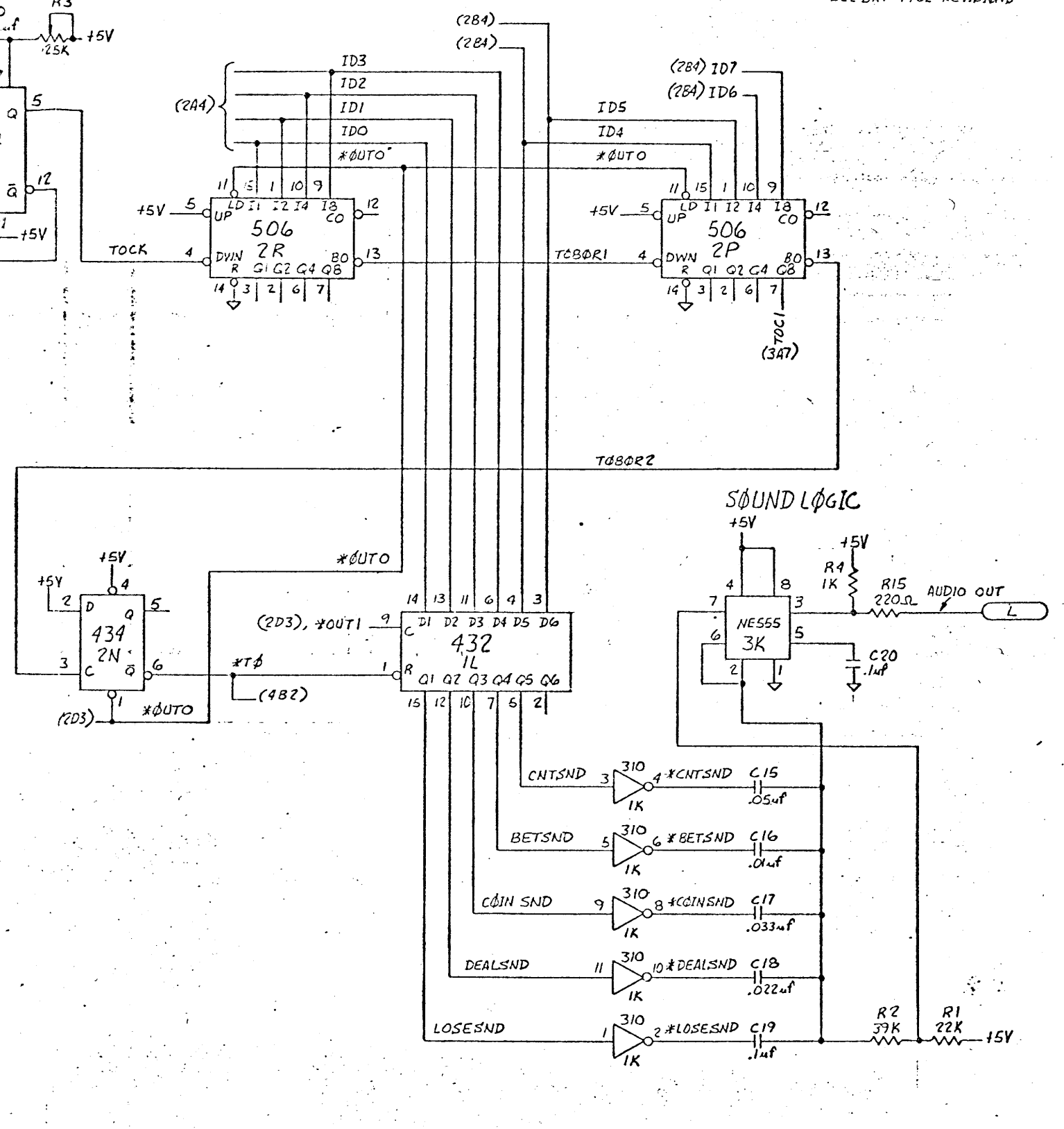
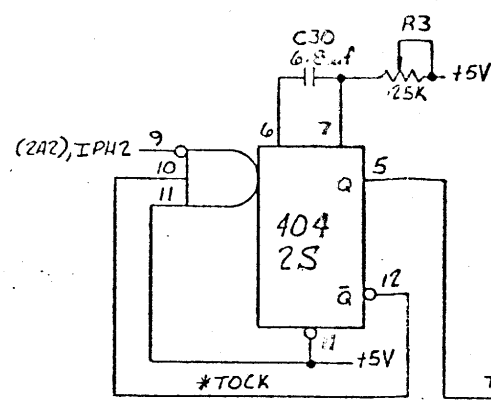
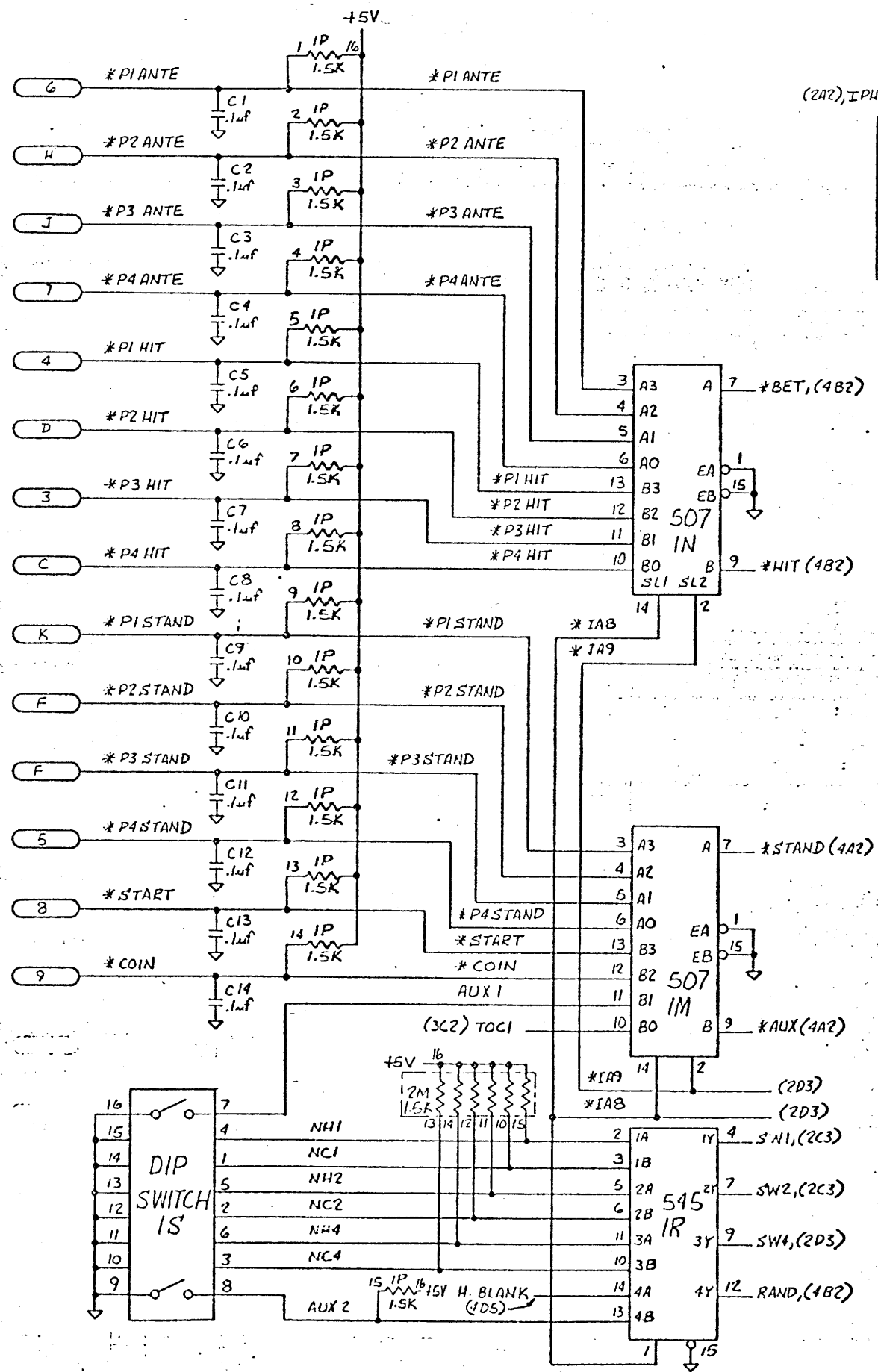


LIST OF MATERIALS		ITEM NO.
QTY	PART NO.	ITEM DESCRIPTION

TOLERANCES		DO NOT SCALE DRAWING		SIGNATURES		DATE		RAMTEK	
GREEN OTHER BOARD UNFINISHED PULSE ALL DIMENSIONS ALL SHARP EDGES						DATE			
DR	CHK	FIN	REV	DATE		550594			
MATL	CHK	FIN	REV	DATE					
FINISH									
NEXT ASSY									

REVISIONS			
LTB	GT	APVD	EMT
SEE SH1 FOR REVISIONS			

TIME OUT COUNTERS



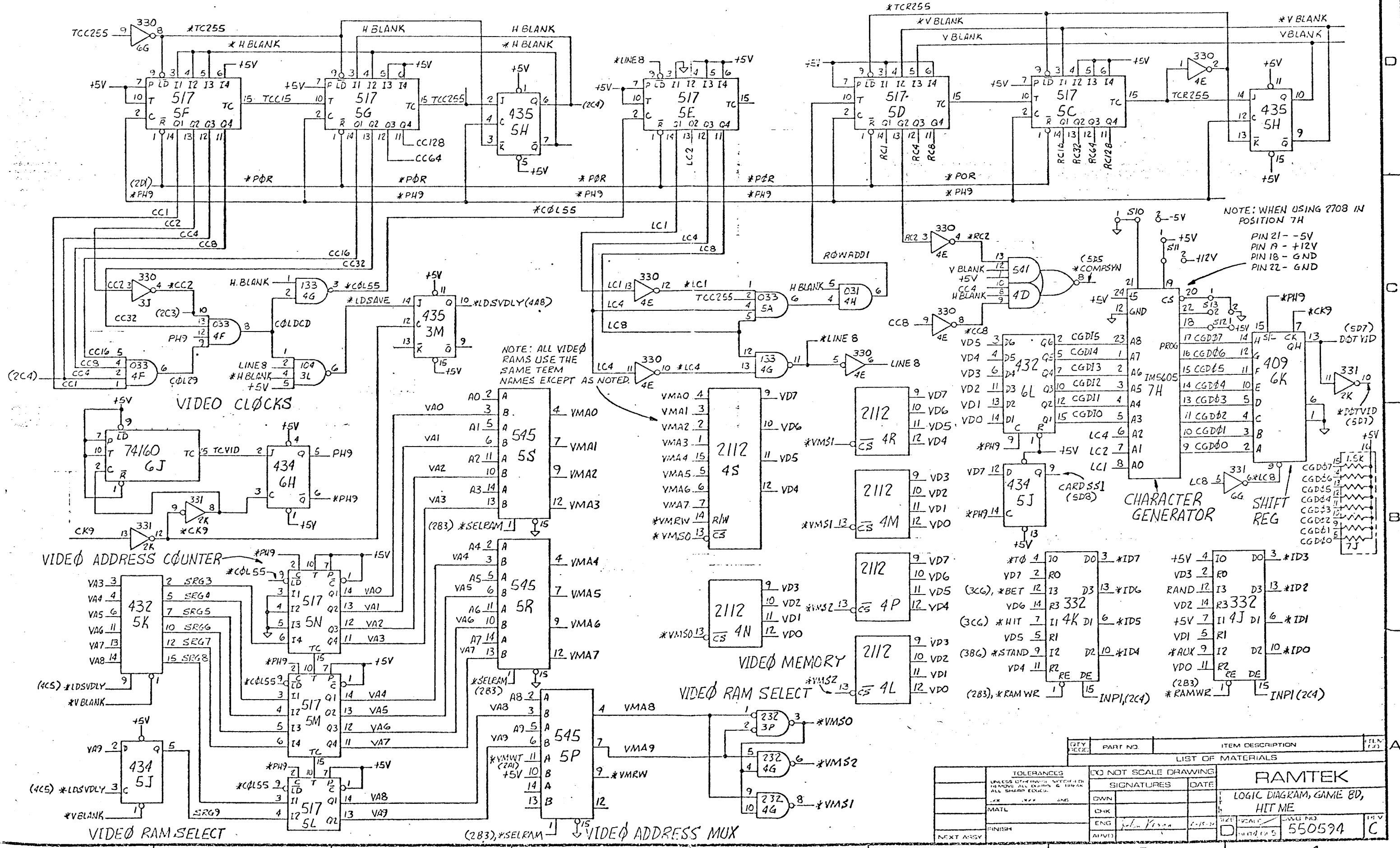
QTY	PART NO	ITEM DESCRIPTION	ITEM
		LIST OF MATERIALS	
		RAMTEK	
		LOGIC DIAGRAM, GAME BD,	
		HIT ME	
		SCALE	
		550594	

COLUMN COUNTER

LINE COUNTER

ROW COUNTER

REVISIONS			
REV	DESCRIPTION	APPROV	DATE
1	SEE SH11 FOR REVISIONS		



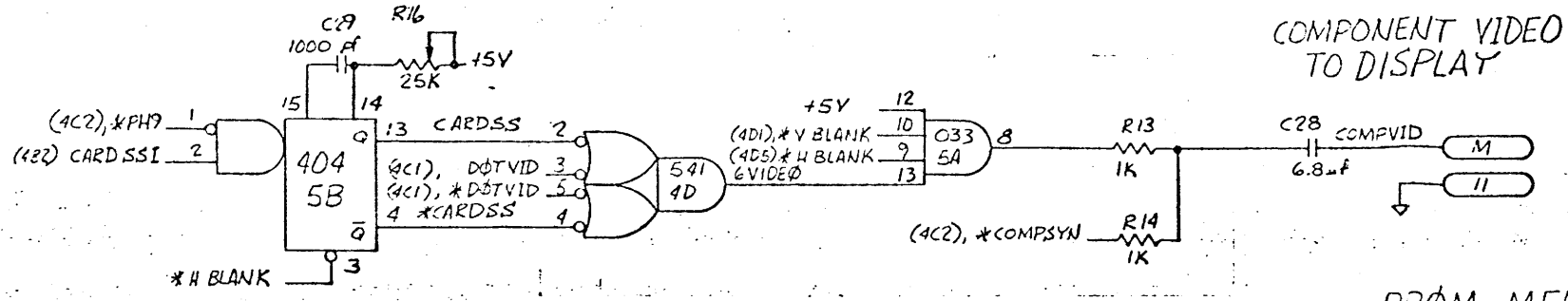
NOTE: WHEN USING 2708 IN POSITION 7H
 PIN 21 - -5V
 PIN 19 - +12V
 PIN 18 - GND
 PIN 22 - GND

NOTE: ALL VIDEO RAMS USE THE SAME TERM NAMES EXCEPT AS NOTED.

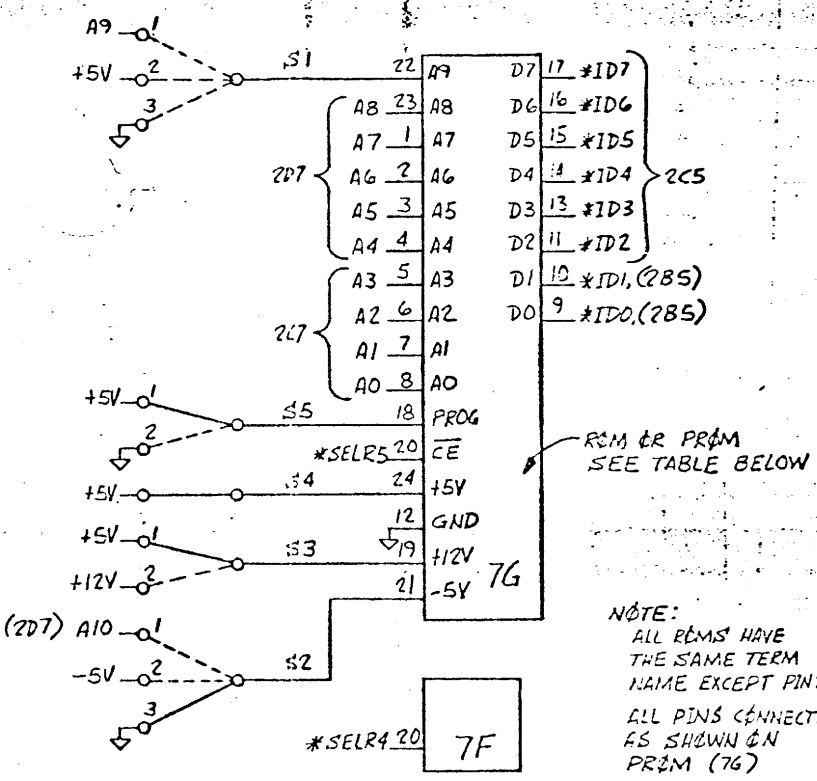
QTY	PART NO	ITEM DESCRIPTION	ITEM #
LIST OF MATERIALS			
TOLERANCES UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & IMPUR ALL SHARP EDGES			
SIGNATURES		DATE	
OWN	CHK		
ENG	APPROV	DATE	
NEXT ASSY		FINISH	

DO NOT SCALE DRAWING		RAMTEK	
LOGIC DIAGRAM, GAME 8D,		HIT ME	
SCALE	DATE	QTY	REV
1:1	0-15-77	5	1
JWS NO		550594	

REVISIONS		
LT#	DESCRIPTION	APPROV
	SEE SHEET FOR REVISIONS	

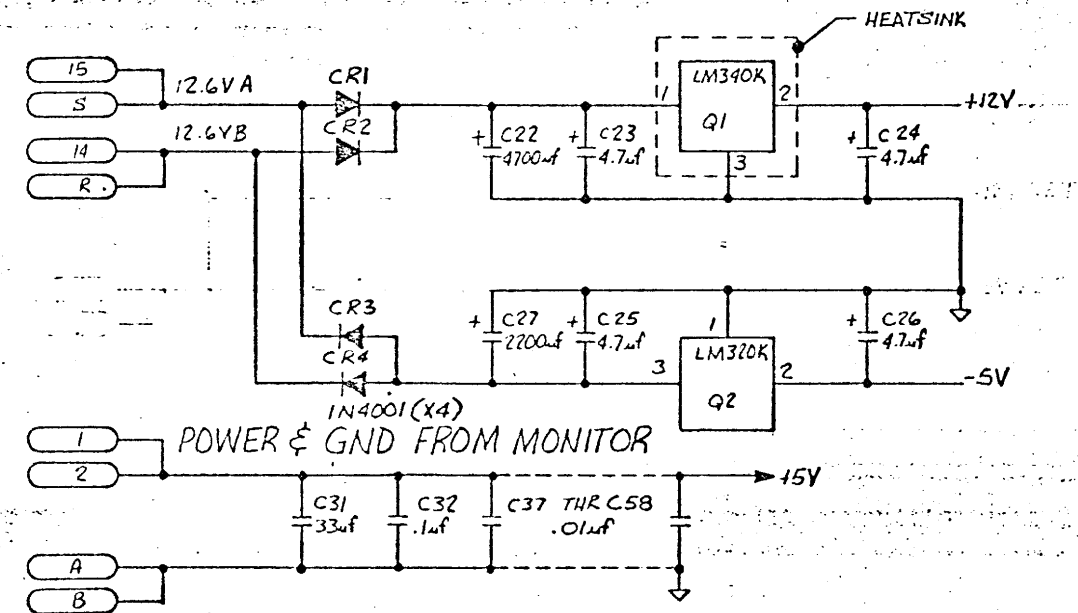


PR0M MEMORY (512 x 8)

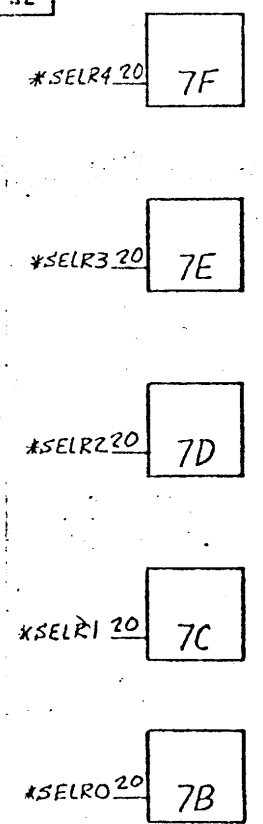
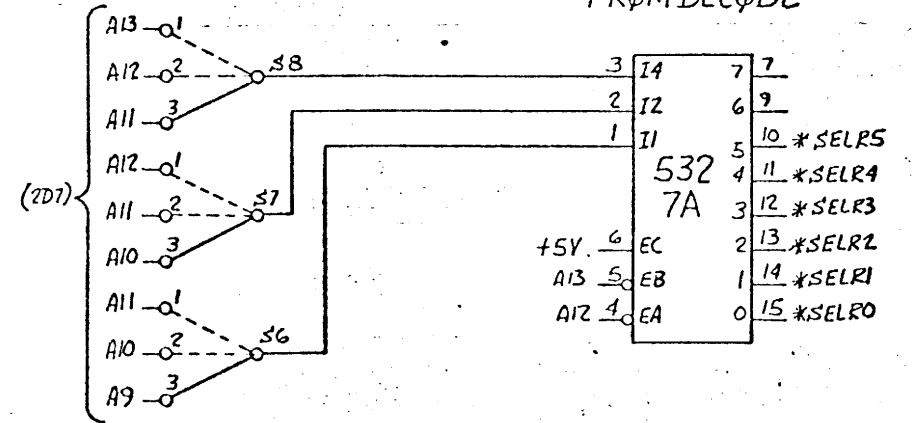


NOTE:
ALL ROMS HAVE THE SAME TERM NAME EXCEPT PIN 20. ALL PINS CONNECTED AS SHOWN ON PR0M (76)

MFG	PART NO.	S1 PIN 22	S2 PIN 21	S3 PIN 19	S4 PIN 24	S5 PIN 18	S6	S7	S8	SIZE	ROM
INTEL	2308 5308	A9	-5V	+12V	+5V	GND	A10	A11	A12	1KX8	
INTEL	2708	A9	-5V	+12V	+5V	GND	A10	A11	A12	1KX8	
INTEL	3624 3624-4	+5V	GND	+5V	+5V	+5V	A9	A10	A11	512X8	
INTEL	3604-4 3604L-4	+5V	GND	+5V	+5V	+5V	A9	A10	A11	512X8	
INTEL	3604-6 3604L-6	+5V	GND	+5V	CUT OFF PIN	+5V	A9	A10	A11	512X8	
AMD	9208	A9	OPEN	+12V	+5V	+5V	A10	A11	A12	1KX8	ROM
AMD	7216	A9	A10	+12V	+5V	+5V	A11	A12	A13	2KX8	ROM
FABRICATED	93438 9344B	OPEN	GND	+5V	+5V	+5V	A9	A10	A11	512X8	
INTERILL	1MS605 1MS625	OPEN	GND	+5V	+5V	+5V	A9	A10	A11	512X8	



PR0M DECODE



QTY REQD	PART NO.	ITEM DESCRIPTION	ITEM NO.
LIST OF MATERIALS			

DO NOT SCALE DRAWING

SIGNATURES: _____ DATE: _____

CHK: _____

ENG: _____

APPROV: _____

SCALE: _____

RAMTEK
LOGIC DIAGRAM, GAME BD,
HIT ME

SCALE: _____

550591