

1.0 - acaM - s, r, o + a r e p o

III. SELECTABLE OPTIONS

TARG has several switch selectable options which are controlled by a 8-position DIP switch located on the main logic board at position 16A. This switch is accessible from the front of the game through the coin door. Figure 1 shows all selectable functions controlled by the 8-position DIP switch.

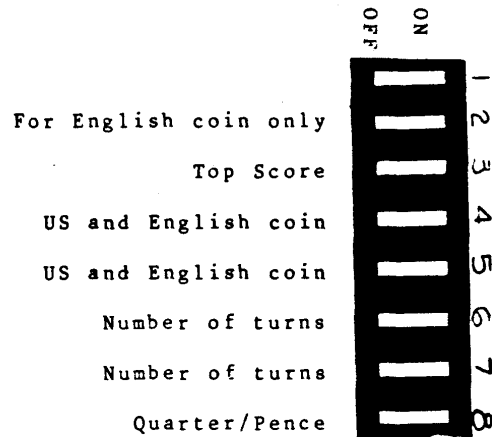
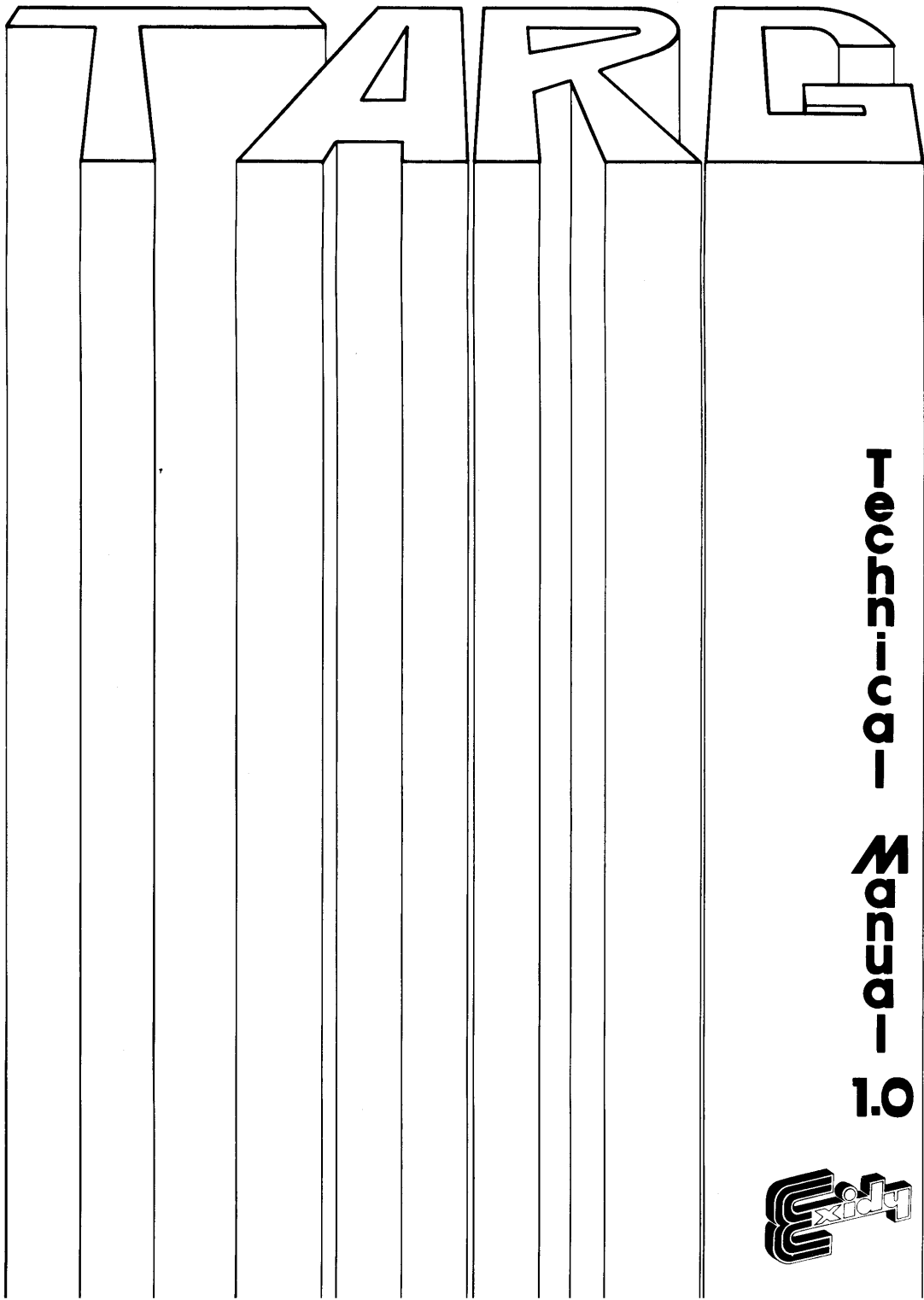


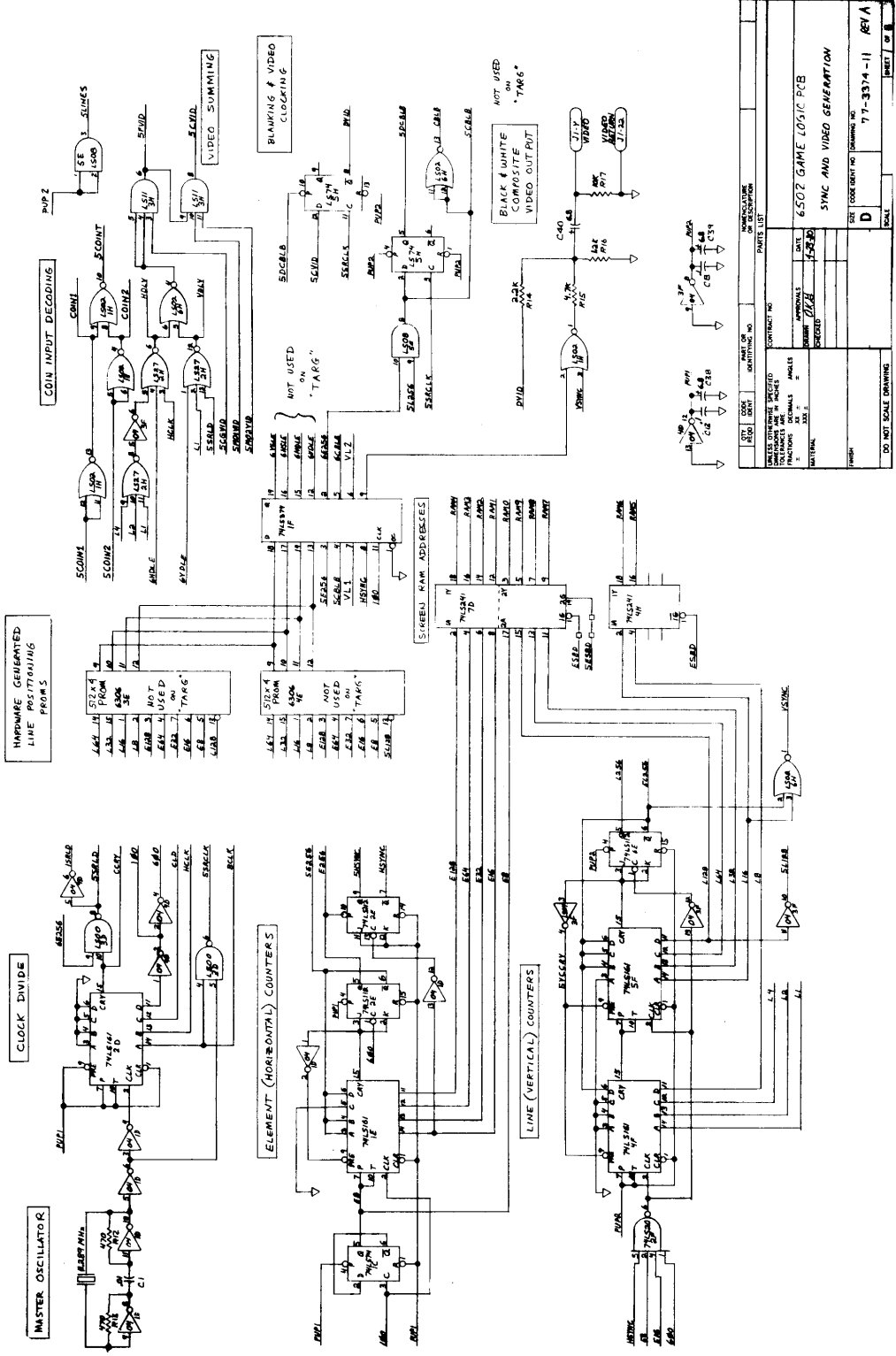
Figure 6.5: Functions of the 8-position DIP Switch

Following are the switch settings for the selection of options:

A. COINAGE	Switch 4	Switch 5		
2 Player - 1 Coin	OFF	OFF		
1 Player - 1 Coin	OFF	ON		
2 Player - 2 Coin				
1 Player - 2 Coin	ON	OFF		
2 Player - 4 Coin				
B. TYPE OF COINS	Switch 8			
Quarters	OFF			
English coins	ON			
C. FOR ENGLISH COINS ONLY		Switch 2	Switch 4	Switch 5
1 game, one 10 pence coin		ON	OFF	OFF
6 games one 50 pence coin				
1 game two 10 pence coins		OFF	OFF	OFF
3 games one 50 pence coin				
D. NUMBER OF TURNS	Switch 6	Switch 7		
2 Wummels (turns)	OFF	OFF		
3 Wummels	ON	OFF		
4 Wummels	OFF	ON		
5 Wummels	ON	ON		
E. TOP THIS SCORE	Switch 3			
Credit awarded for topping score	ON			
Extended play for topping score	OFF			



1.0 - 0.5 - 1.0 - 1.5 - 2.0 - 2.5 - 3.0 - 3.5 - 4.0 - 4.5 - 5.0 - 5.5 - 6.0 - 6.5 - 7.0 - 7.5 - 8.0 - 8.5 - 9.0 - 9.5 - 10.0



PARTS LIST	
Q1	74LS163
Q2	74LS163
Q3	74LS163
Q4	74LS163
Q5	74LS163
Q6	74LS163
Q7	74LS163
Q8	74LS163
Q9	74LS163
Q10	74LS163
Q11	74LS163
Q12	74LS163
Q13	74LS163
Q14	74LS163
Q15	74LS163
Q16	74LS163
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Q99	74LS163
Q100	74LS163

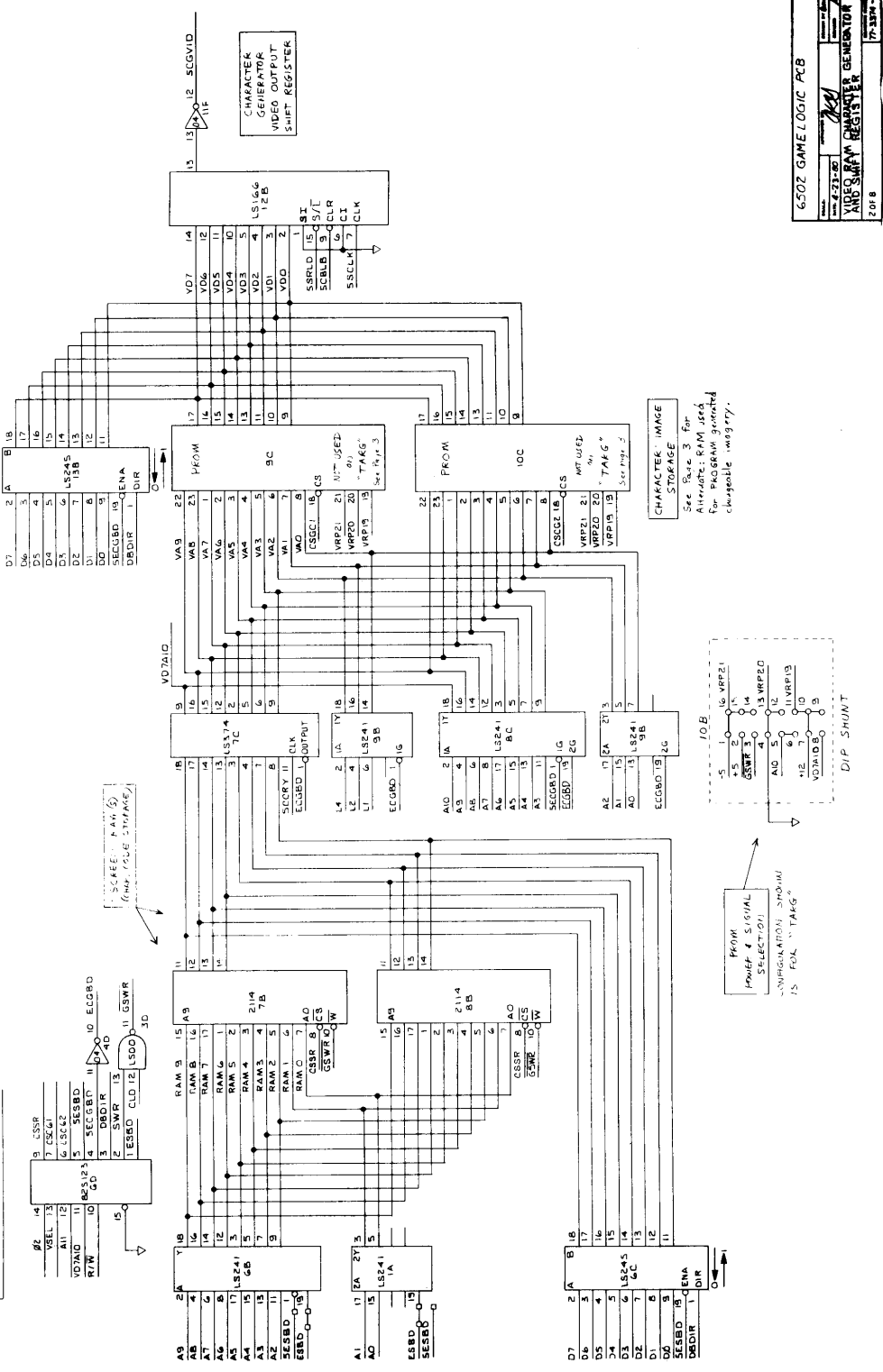
6502 GAME LOGIC PCB
 SYNC AND VIDEO GENERATION
 71-3314-11 REV A

DATE: 12/88
 APPROVALS: [Signature]
 CHECKED: [Signature]
 DRAWN: [Signature]

DO NOT SCALE DRAWING

SHEET 1 OF 8

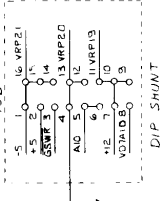
SCREEN CHIP SELECT AND BIOS
INJECTION DECODING FROM



6502 GAME LOGIC PCB
 4-23-80
 VIDEO RAM CHARACTER GENERATOR AND SWAP REGISTER
 2018

CHARACTER IMAGE STORAGE
 See Page 3 For
 ALGORITHM: RAM AREA
 FOR PROGRAM GENERATED
 character image.

FROM
 POWER & SIGNAL
 SELECTION
 IS FOR "TAG"

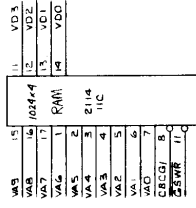
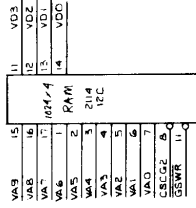
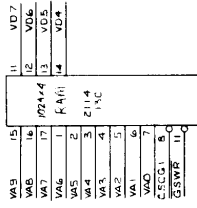
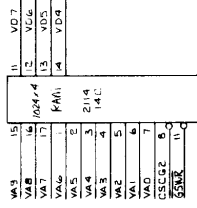


DIP SHUNT

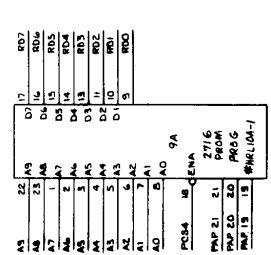
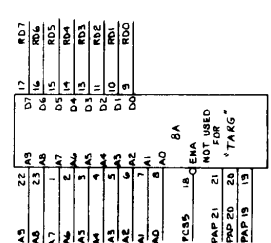
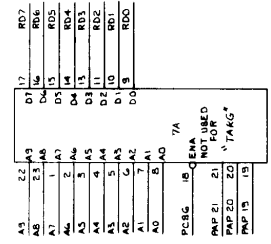
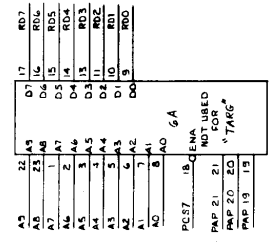
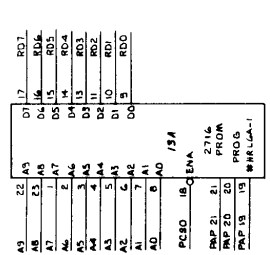
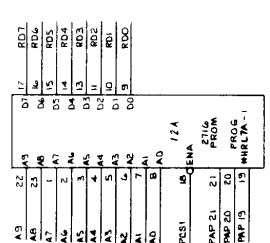
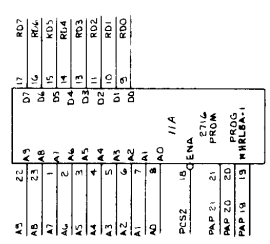
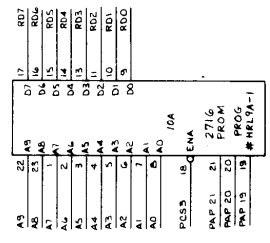
CHARACTER GENERATOR
IMAGE STORAGE RAMS

For use with PROGRAM
generated image storage master.

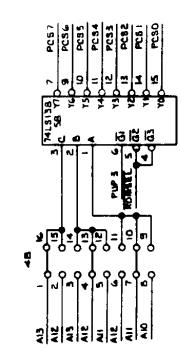
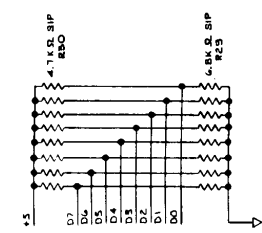
SEE "TAGS"



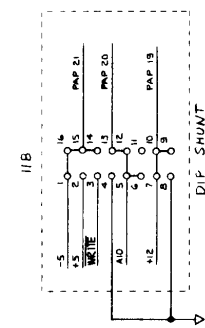
PROGRAM MEMORY



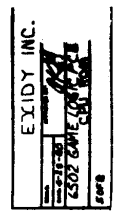
DATA BUS TERMINATION
Ringing Suppression

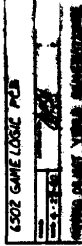
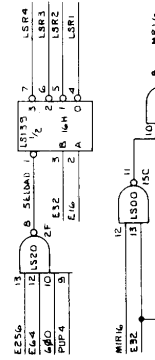
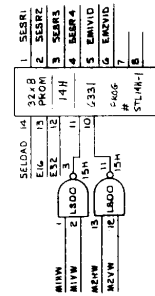
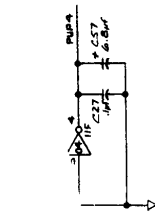
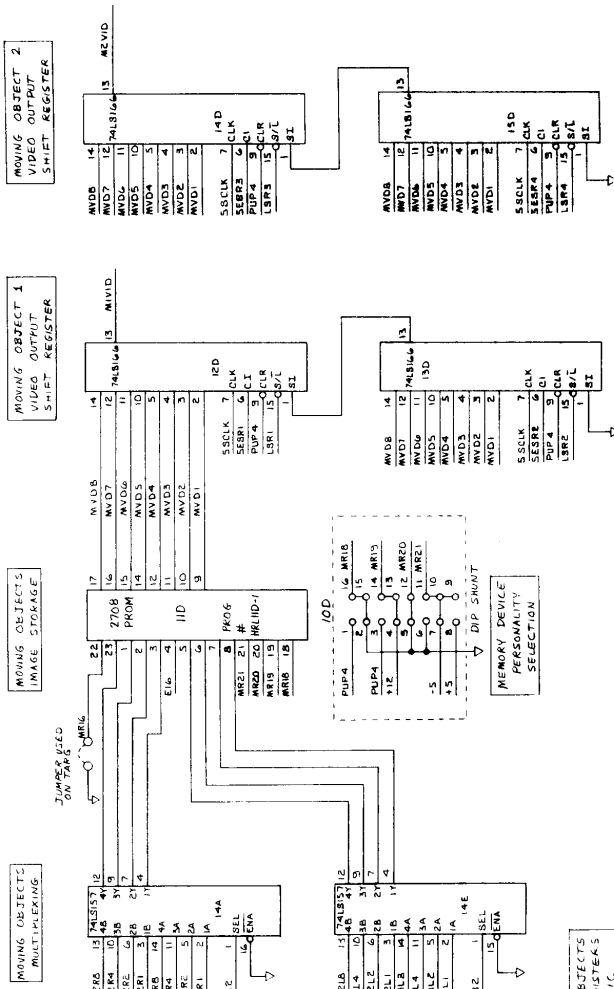


PROM ADDRESS SELECTION
Configuration shown for "TARG"

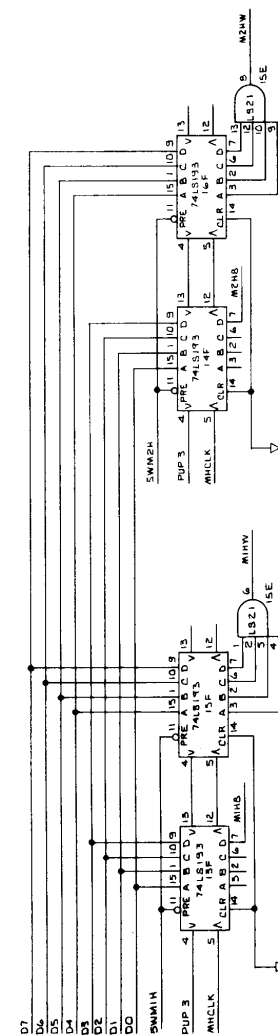


MEMORY DEVICE PERSONALITY SELECTION
Configuration shown for "TARG"

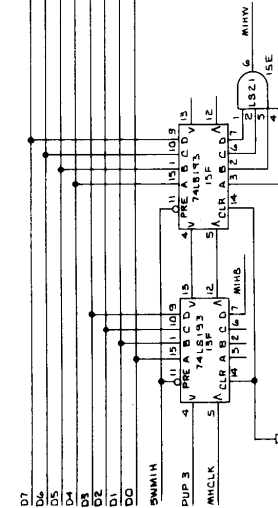




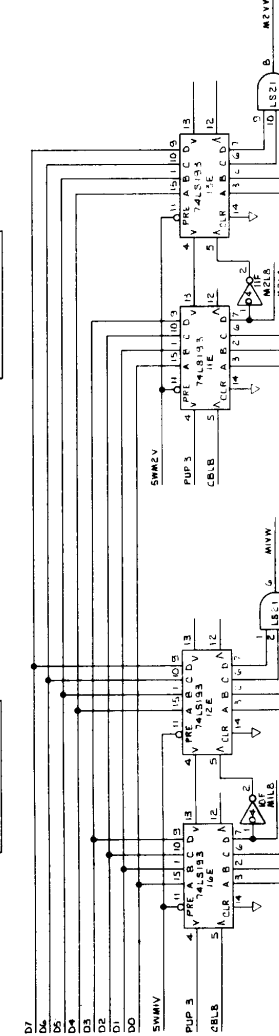
MOVING OBJECT 2
HORZ. COUNTERS



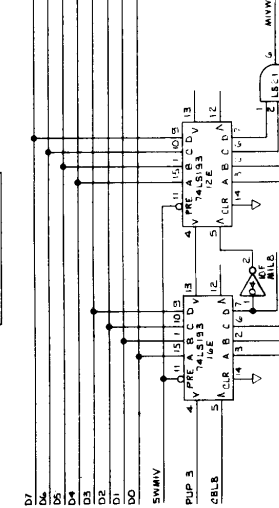
MOVING OBJECT 1
HORZ. COUNTERS



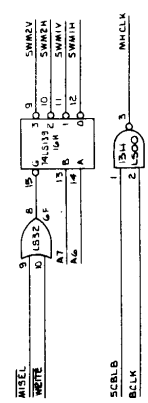
MOVING OBJECT 2
VERTICAL COUNTERS



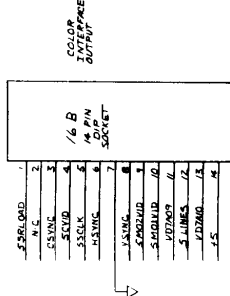
MOVING OBJECT 1
VERTICAL COUNTERS

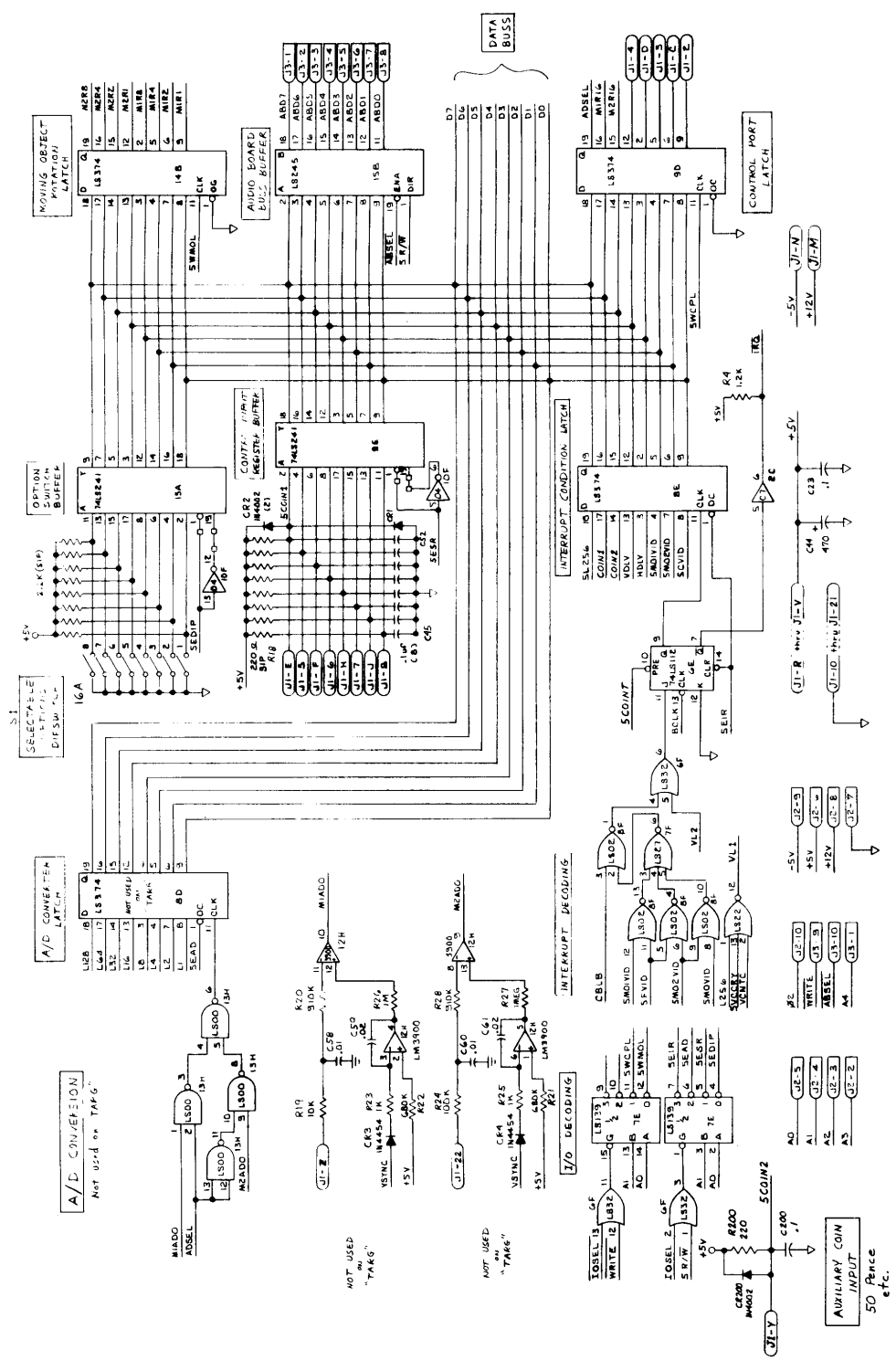


NOTE: FOR "TARG"
MOVING OBJECT 1 = PLAYER IMAGE (NUMBER)
MOVING OBJECT 2 = MISSILE



WRITE MOVING OBJECT' DECODING

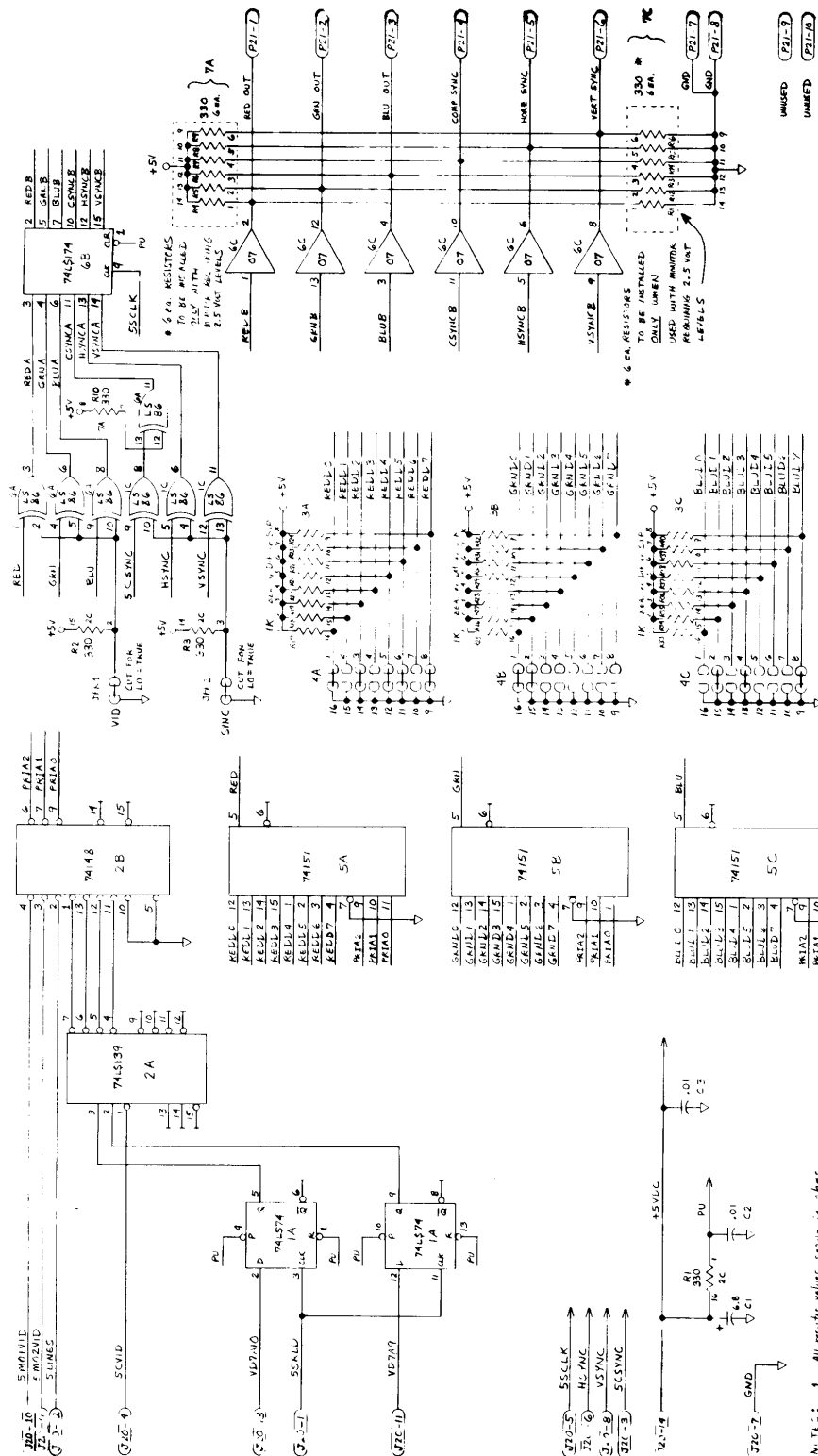




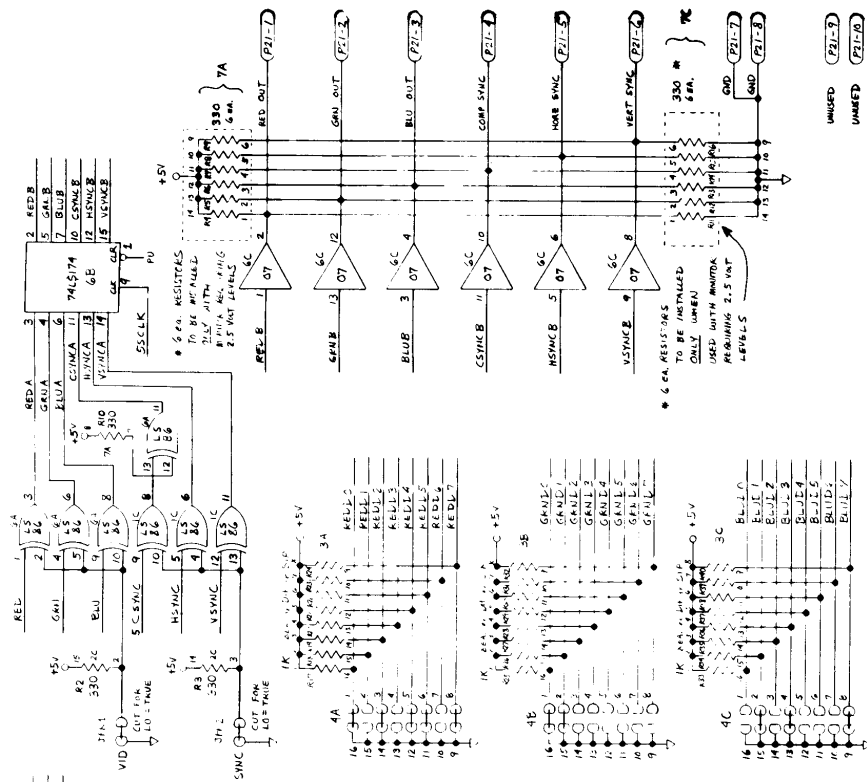
74181 ALU
 74182 MUX
 74180 MAJORITY
 74183 COMPARATOR
 74184 BCD-DEC
 74185 BCD-DEC
 74186 INVERTER
 74187 BCD-DEC
 74188 BCD-DEC
 74189 BCD-DEC
 74190 COUNTER
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 74299 COUNTER
 74300 COUNTER

A/D CONVERTER LATCH
 MOVING OBJECT SWITCH BUFFER LATCH
 OPTION SWITCH BUFFER
 AUDIO BOARD BUS BUFFER
 COUNT REGISTER BUFFER
 INTERUPT CONDITION LATCH
 INTERUPT DECODING
 I/O DECODING
 AUXILIARY COIN INPUT
 CONTROL PORT LATCH

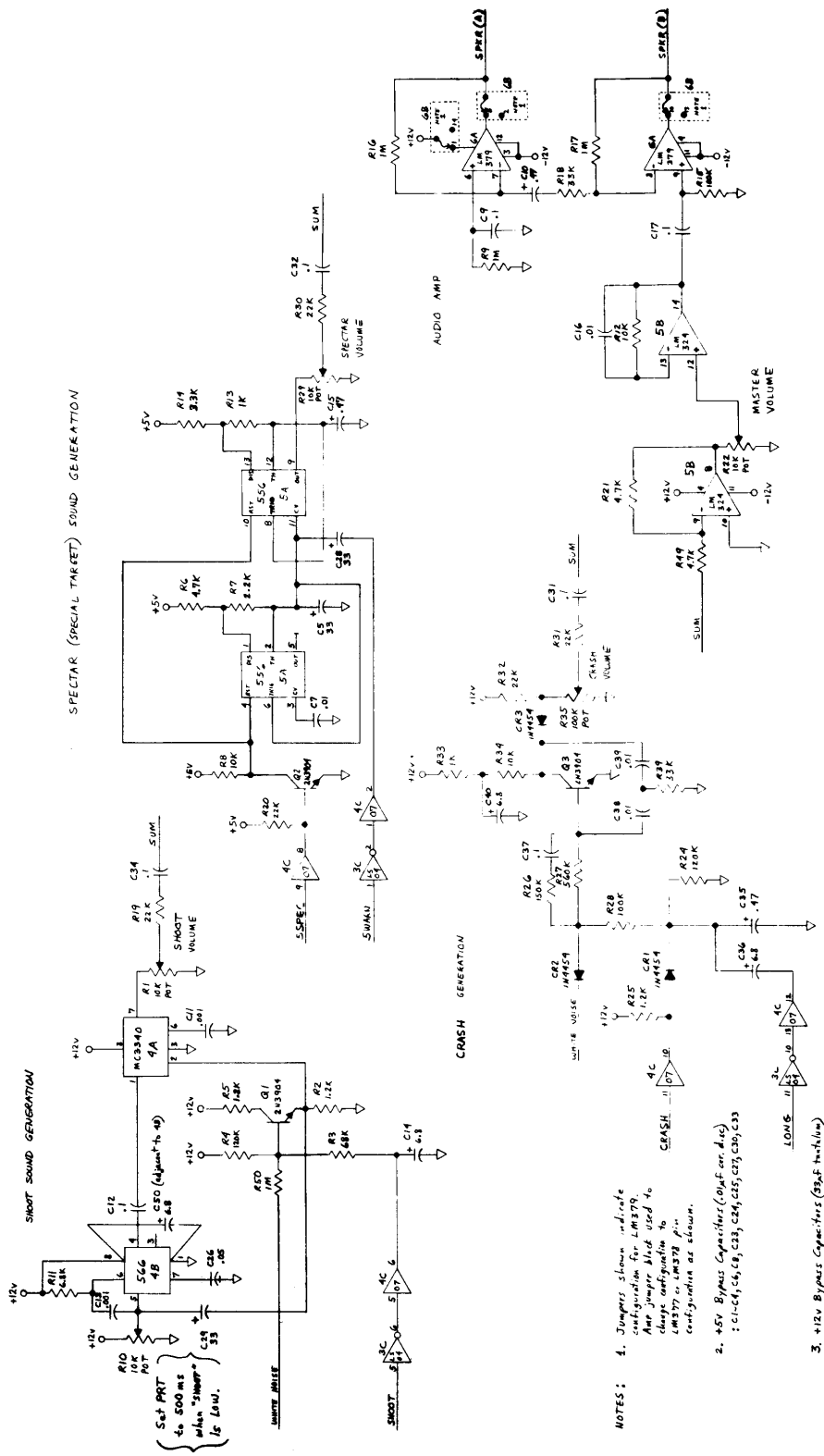
NOT USED
 "TAGS"
 NOT USED
 "TAGS"
 50 Pence
 etc.



- NOTES:
1. All resistor values shown in ohms
 2. All resistor values shown in microohms
 3. C4-C6 (not shown) are .01 microfarad cap. disc. for bypass



- UNUSED (P21-9)
UNUSED (P21-10)

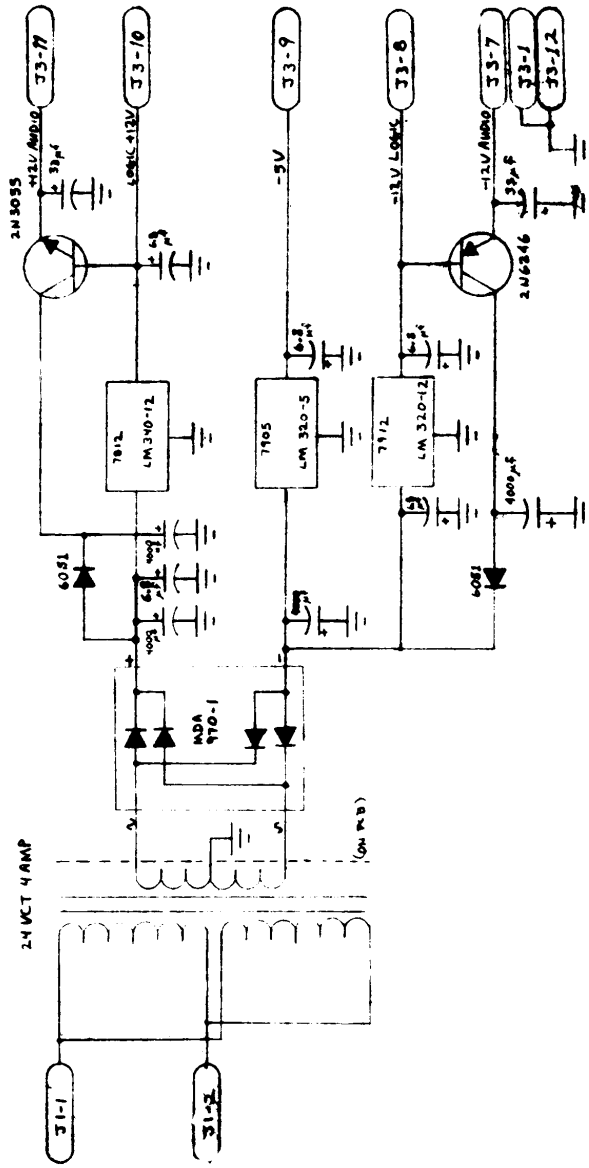


SPECTAR (SPECIAL TARGET) SOUND GENERATION

SHOOT SOUND GENERATION

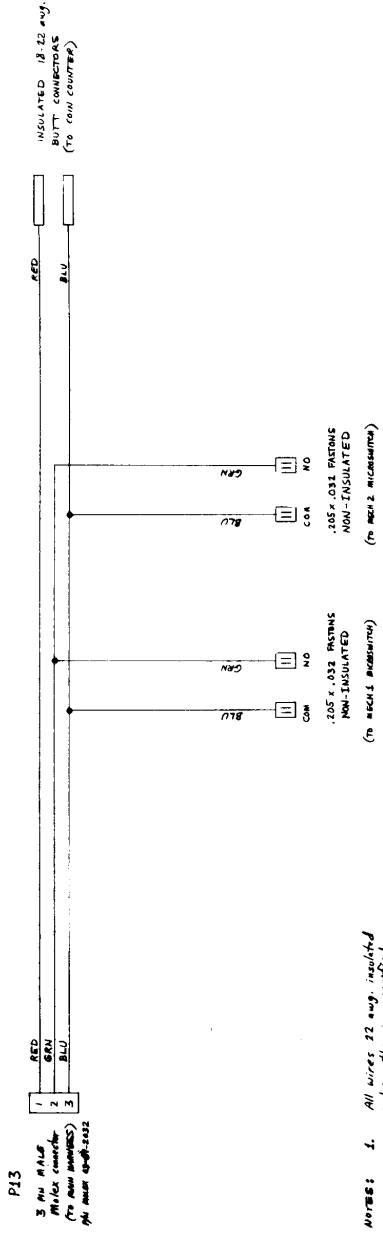
CRASH GENERATION

- NOTES:
1. Jumpers shown indicate configuration for LM379. An jumper block used to change configuration to LM377 or LM378 pin configuration as shown.
 2. +5V Bypass Capacitors (0.01µF or d.c.) : C1-C4, C6, C8, C33, C24, C25, C35, C30, C33
 3. +12V Bypass Capacitors (50µF or 100µF) : C15, C20



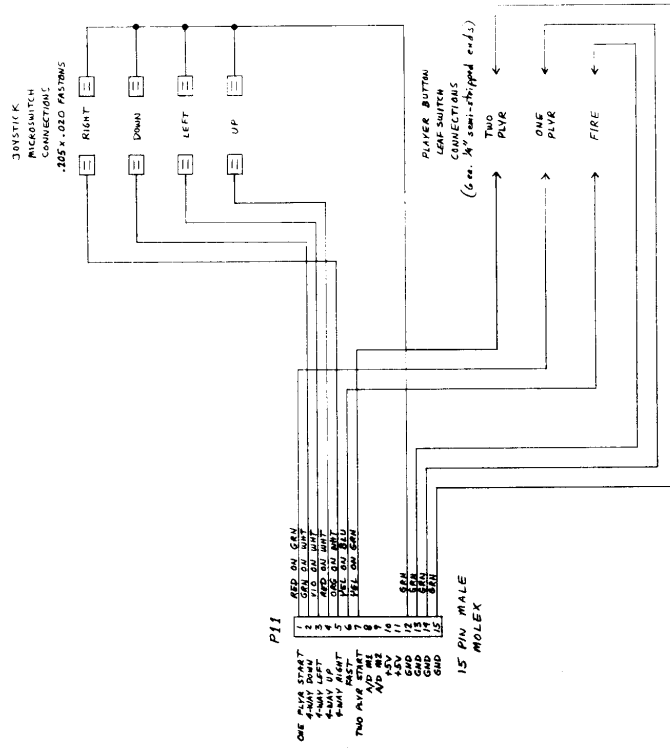
UNIVERSAL POWER SUPPLY SCHEMATIC
 +12.0 V Audio & Logic, -12.0 V Audio & Logic
 -5.0 V Logic

TARG
CONV HARNESS SCHEMATIC
(UNIVERSAL CONV HARNESS)



- NOTES: 1. All wires 22 awg. insulated unless otherwise specified.
2. ABSOLUTELY NO SUBSTITUTIONS ON SPECIFIED WIRE COLORS

TARG CONTROL PANEL HARNESS SCHEMATIC



- NOTES:
1. All wires 22 awg. insulated unless otherwise specified.
 2. ABSOLUTELY NO SUBSTITUTION ON SPECIFIED WIRE COLORS