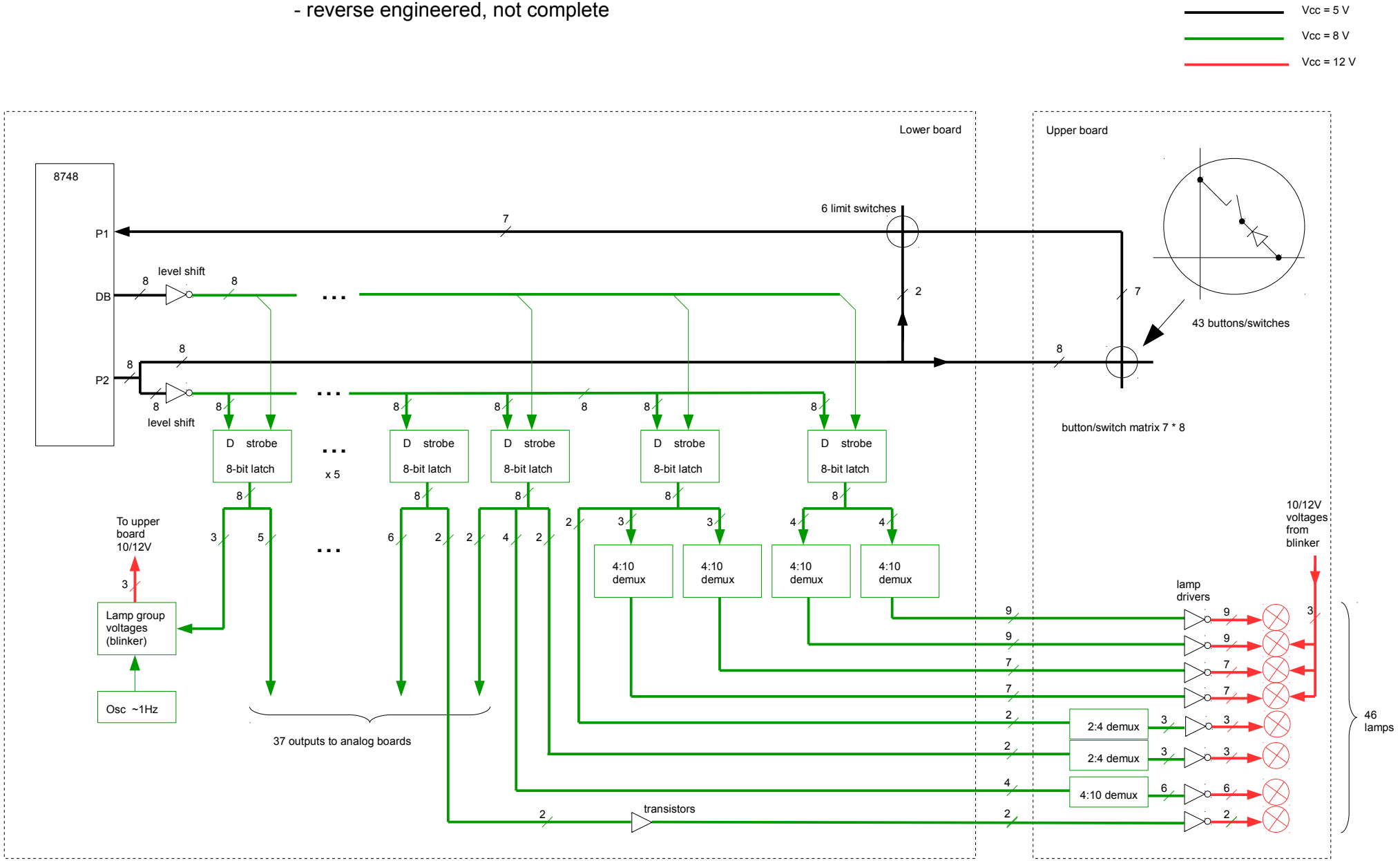
Sony SEG-2000 block diagram

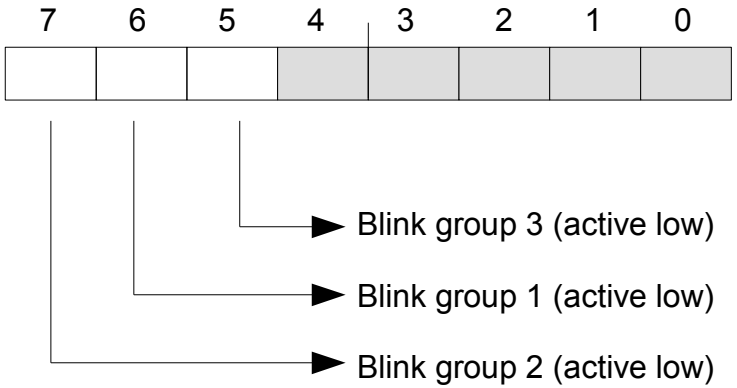
- reverse engineered, not complete



Latch IC10: lamp blinking + output control

Lamp blinking:
- three of the lamp groups can be blinked slightly, varying the voltage between 10V and 12V
- groups are
    1. S1...S7
    2. S8...S14
    3. S15...S23

Strobe: DB0
(active low)

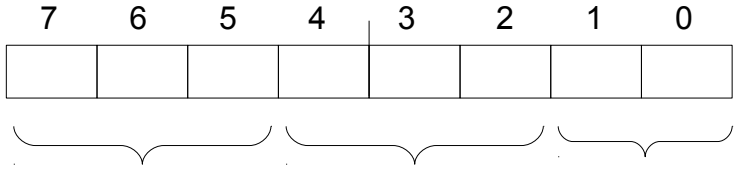


= output control -> video cards

Latch IC12: lamp control

Control lamps:
- buttons S1...S7 (blink group 1), 1-of-7
- S8...S14 (blink group 2) ,1-of-7
- lamps PL7...PL9 (1-of-3)

Strobe: DB1 (active low)

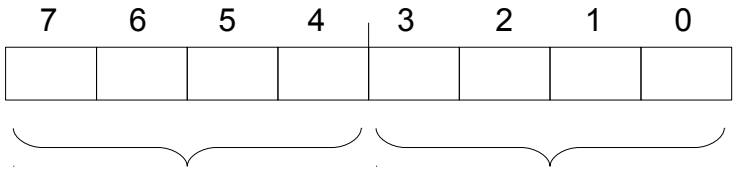


Active lamp: (group 1)	Active lamp: (group 2)	Active lamp:
0 = S7	0 = S14	0 = -
1 = S6	1 = S13	1 = PL8
2 = S5	2 = S12	2 = PL9
3 = S4	3 = S11	3 = PL7
4 = S3	4 = S10	
5 = S2	5 = S9	
6 = S1	6 = S8	
7 = -	7 = -	

Latch IC13: lamp control

Control lamps:
- buttons S15...S23 (blink group 3), 1-of-9
- lamps PL1...PL6,PL10,PL11, 1-of-8

Strobe: DB2 (active low)



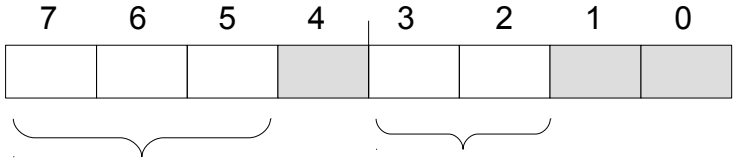
Active lamp:
- 0 = -
- 1 = -
- 2 = -
- 3 = PL6
- 4 = -
- 5 = PL5
- 6 = -
- 7 = PL4
- 8 = -
- 9 = PL3 (broken?)
- A = -
- B = PL2
- C = -
- D = PL1
- E = PL10
- F = PL11

Active lamp:
(group 3)
- 0 = -
- 1 = S21
- 2 = -
- 3 = S20
- 4 = -
- 5 = S19
- 6 = -
- 7 = S18
- 8 = -
- 9 = S17
- A = -
- B = S16
- C = -
- D = S15
- E = S22
- F = S23

Latch IC9: lamp control + output control

Control lamps:
- buttons S24...S26 (1-of-3)
- buttons S27...S32 (1-of-6)

Strobe: DB3 (active low)



Active lamp:
0 = -
1 = S32
2 = S29
3 = S28
4 = S27
5 = S30
6 = S31
7 = -

Active lamp:
0 = S26 (disable upper bits)
1 = S25 (enable upper bits)
2 = S24 (disable upper bits)
3 = - (enable upper bits)

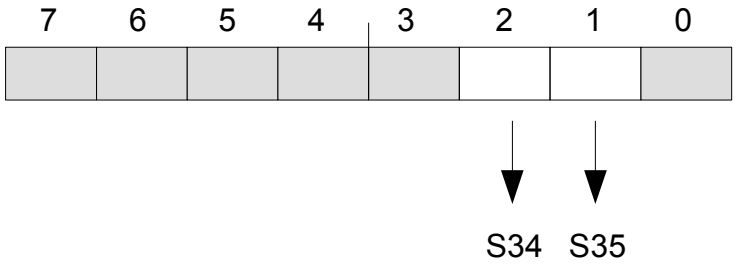
Note:
Lamps in buttons S27...S32 are always off
when lamp S26 or S24 is on!

= output control -> video cards

Latch IC6: lamp control + output control

Control lamps:
- buttons S34,S35

Strobe: DB6 (active low)



= output control -> video cards

Keyboard matrix

P2 = output in 8748, active low
P1 = input in 8748, active low

P1

P2	7	6	5	4	3	2	1	0
7	S1	S2	S3	S4	S5	S6	S7	
6	S8	S9	S10	S11	S12	S13	S14	
5	S15	S16	S17	S18	S19	S20	S21	
4	S24	S25	S26	S22	S23	S33	S39	
3	S31	S30	S27	S28	S29	S32		
2	S34	S35	SW2	SW1	SW4	SW3	SW6	SW5
1	S38u	S38d	S36u	S36d	S37u	S37d		
0	S40d	S40u	S43					

3-position switches:
u = up
d = down
center = not up or down

SWn = slide pot limit switches

Notes

* S41 and S42 are not wired to CPU
* None of the pots are wired to CPU
* PL12 and PL13 are not controller by CPU