



Schematic Diagrams

for the
MODEL S-800
FIELD EMISSION SCANNING
ELECTRON MICROSCOPE

Hitachi, Ltd. Tokyo Japan

Part No. 580-8800-5
YR-TH (GT-NK)

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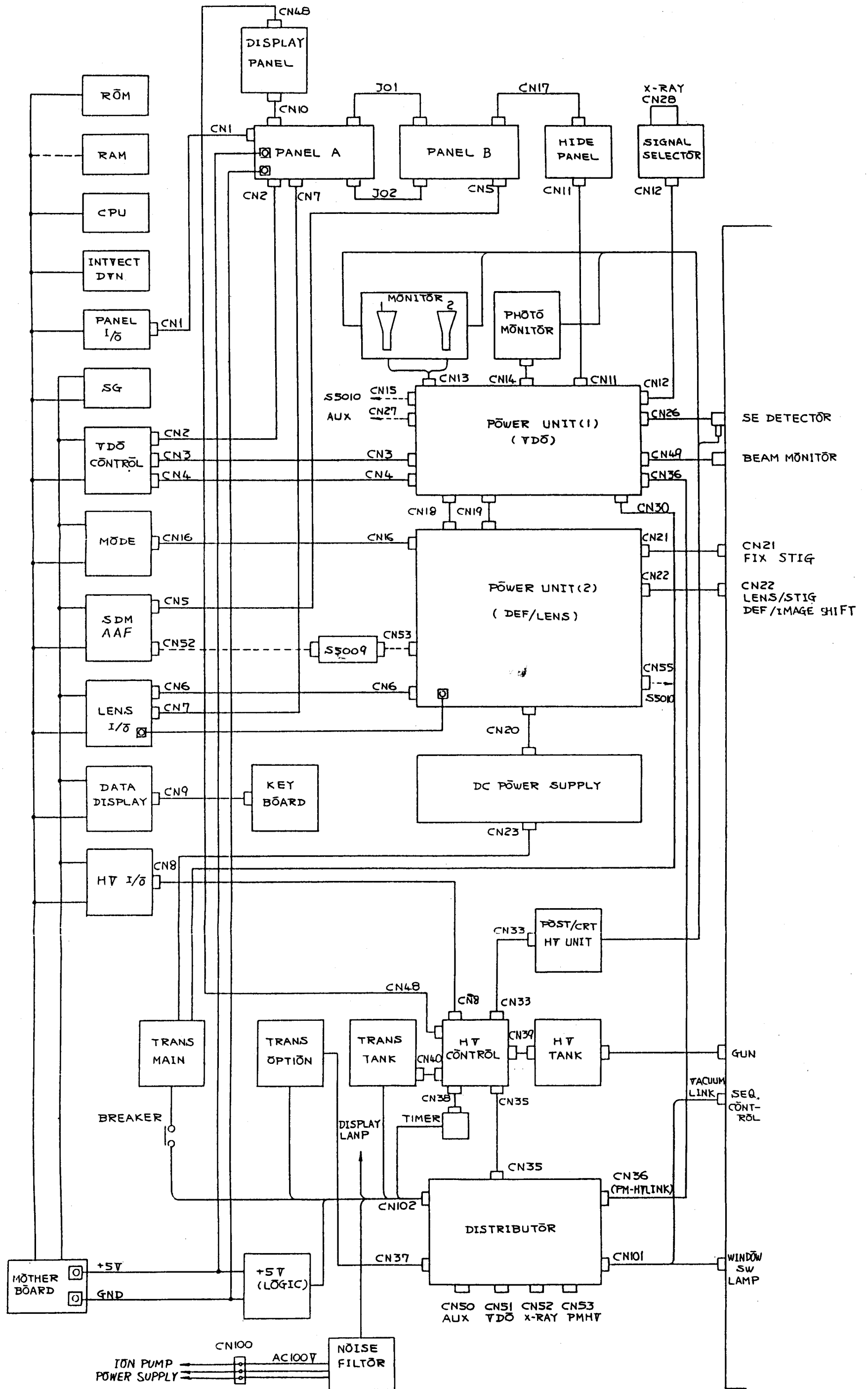
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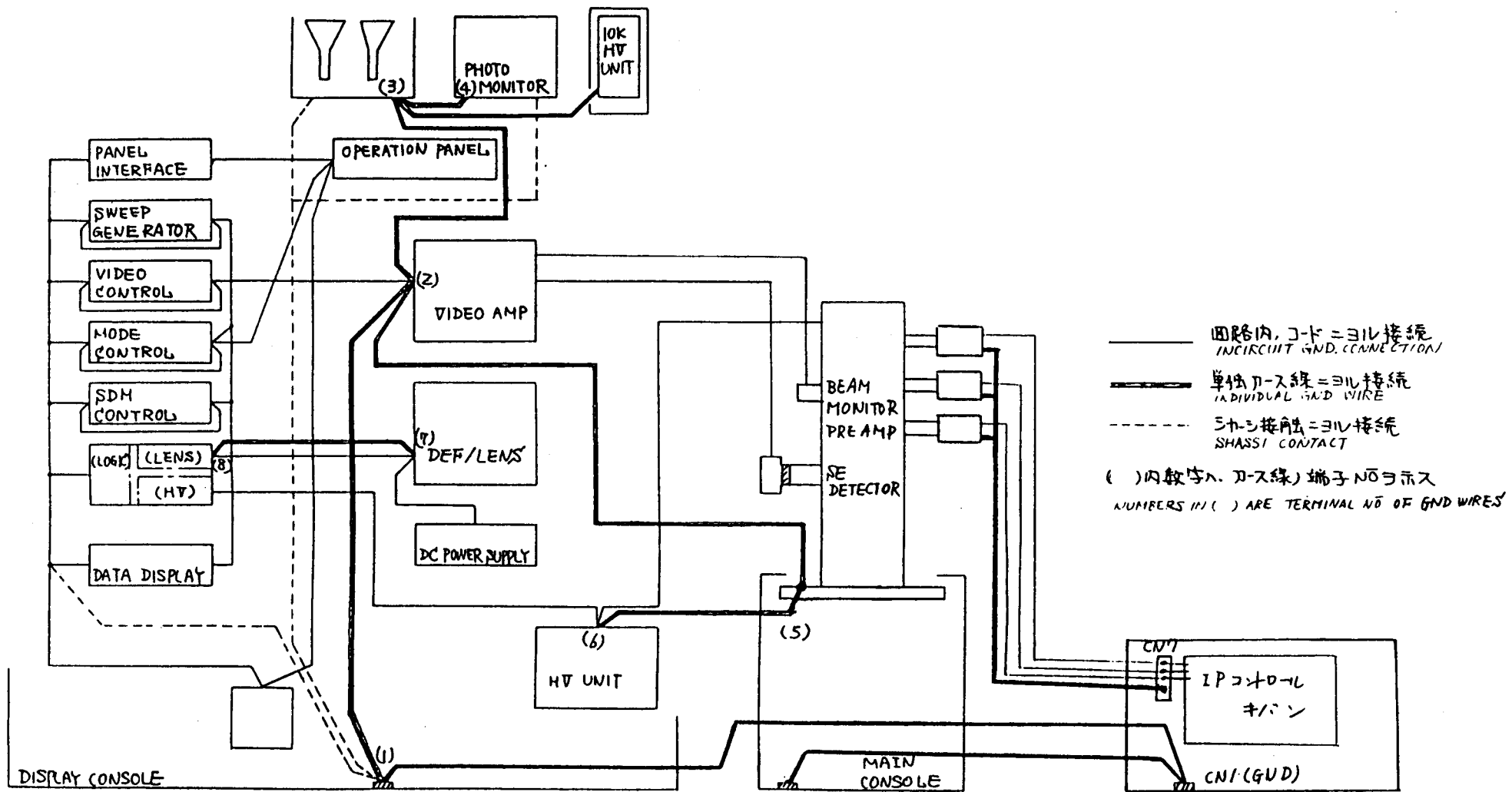
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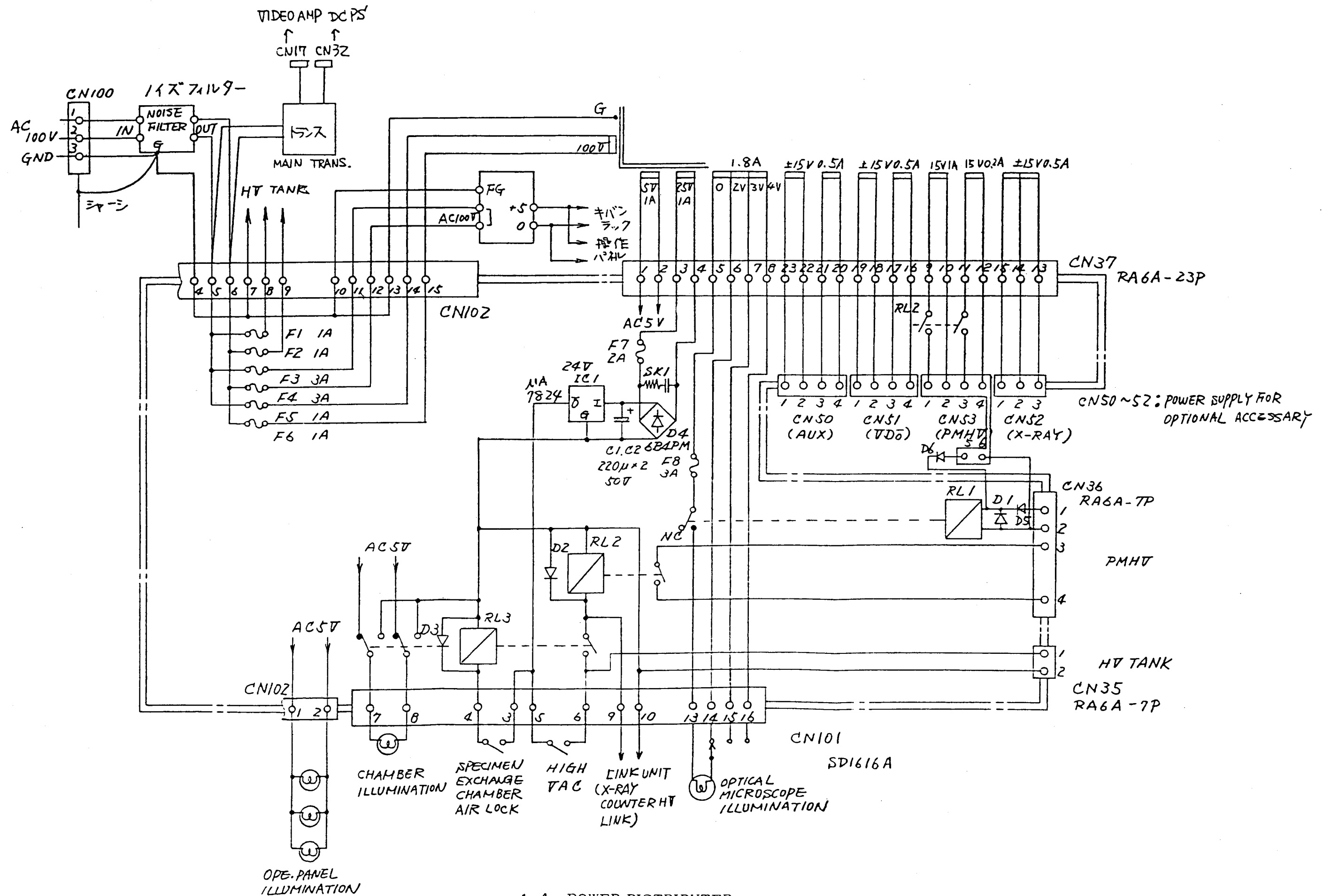
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- 2. 5 S-6542 PRE AMP UNIT
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1.1 WIRING DIAGRAM

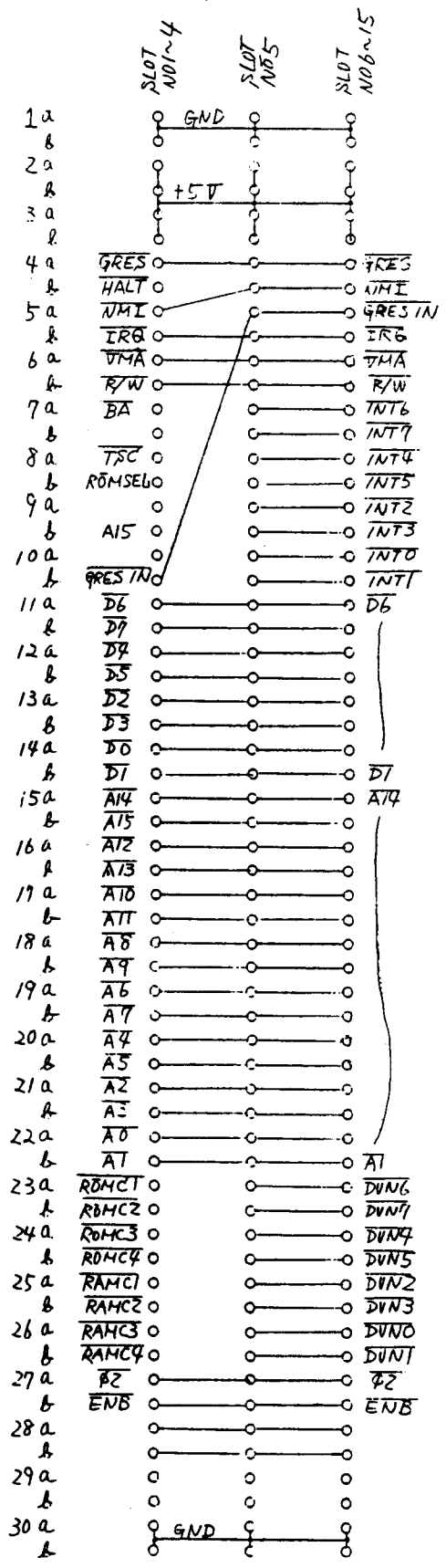




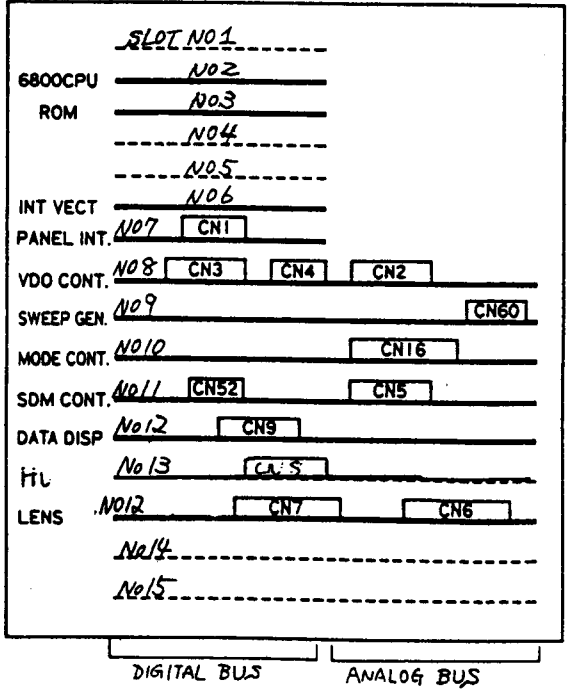
1.2 GND WIRING DIAGRAM



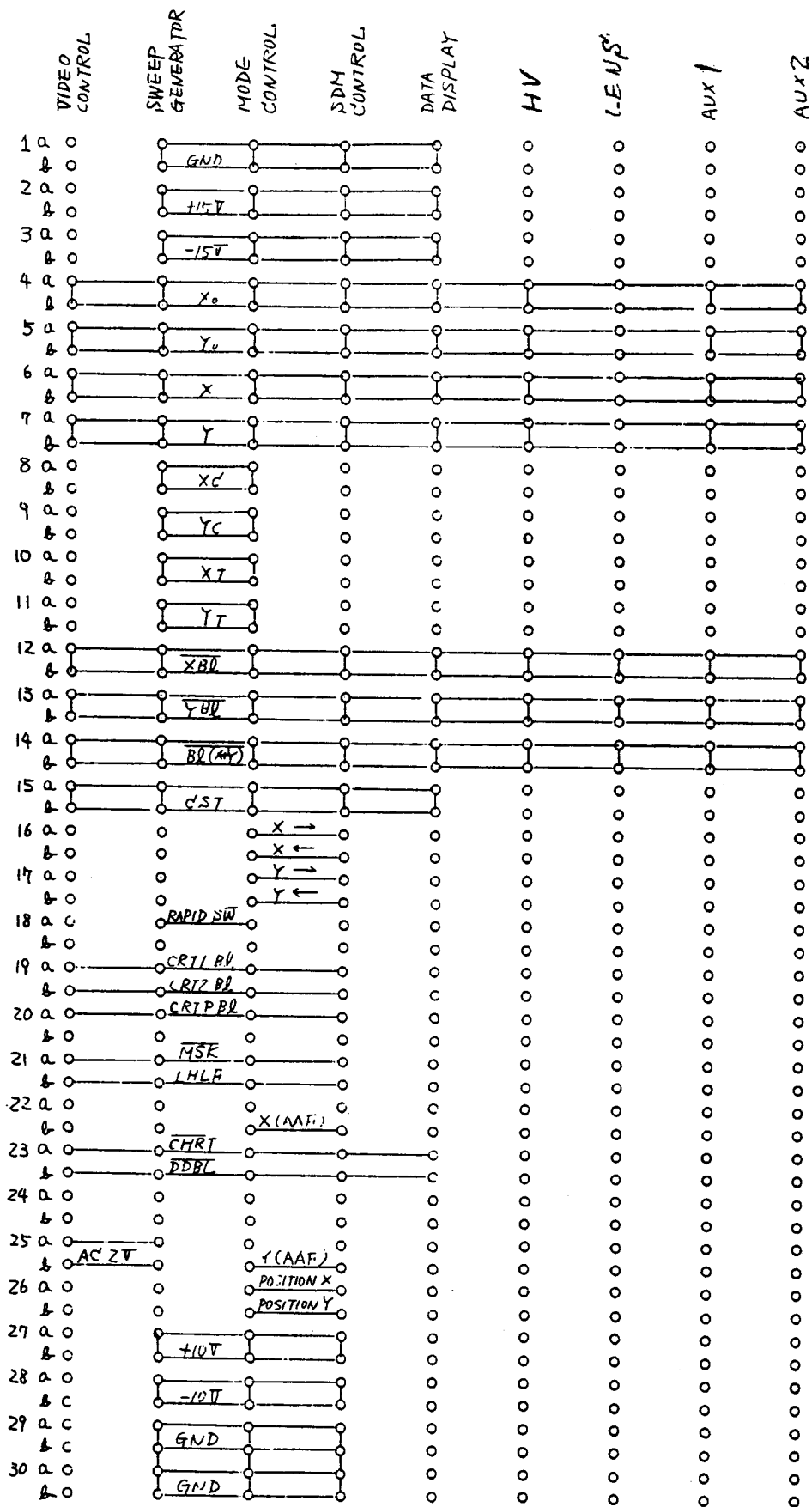
1.4 POWER DISTRIBUTER



DIGITAL BUS LINES

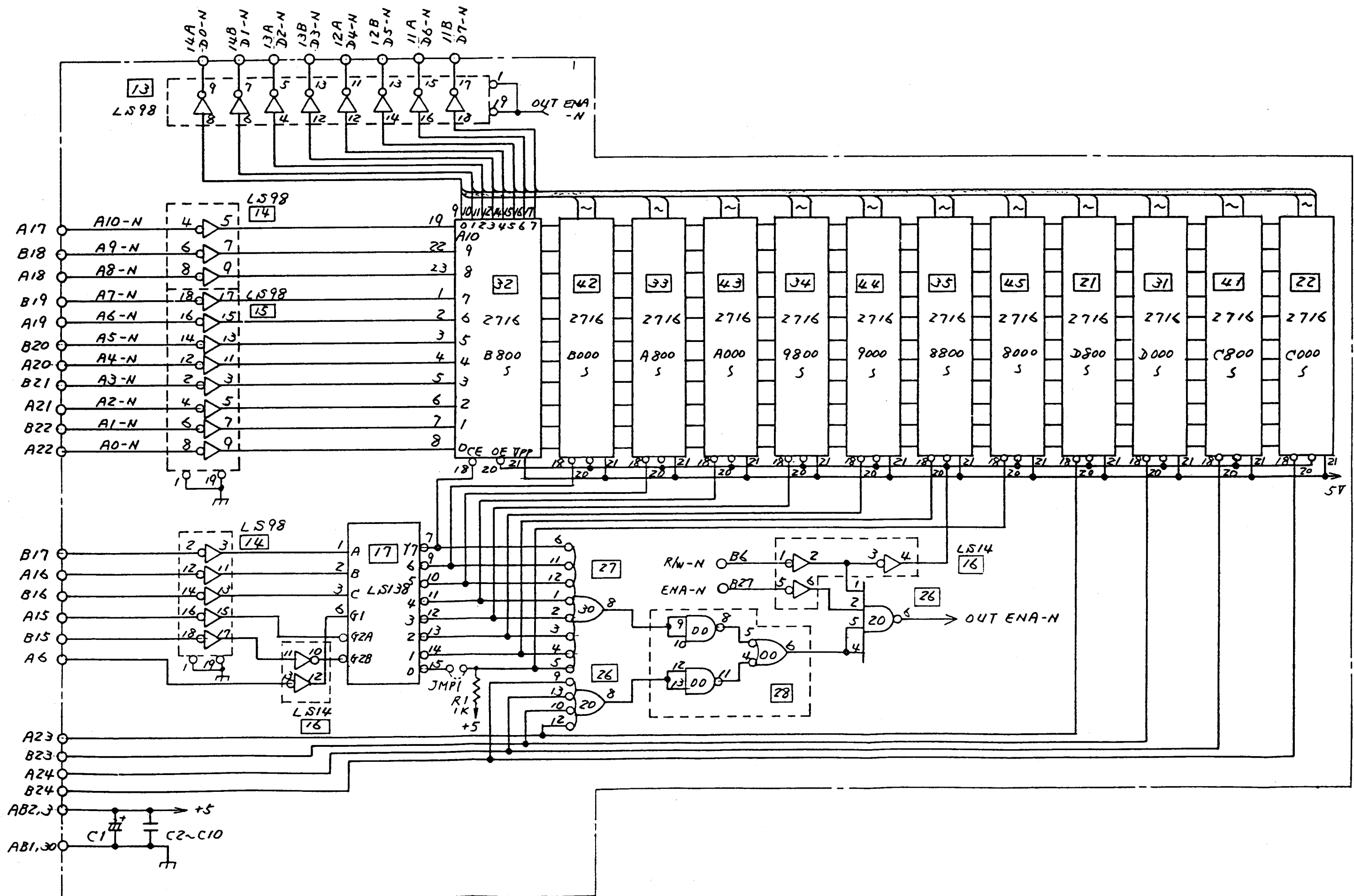


1.5 MOTHER BOARD WIRING (1)

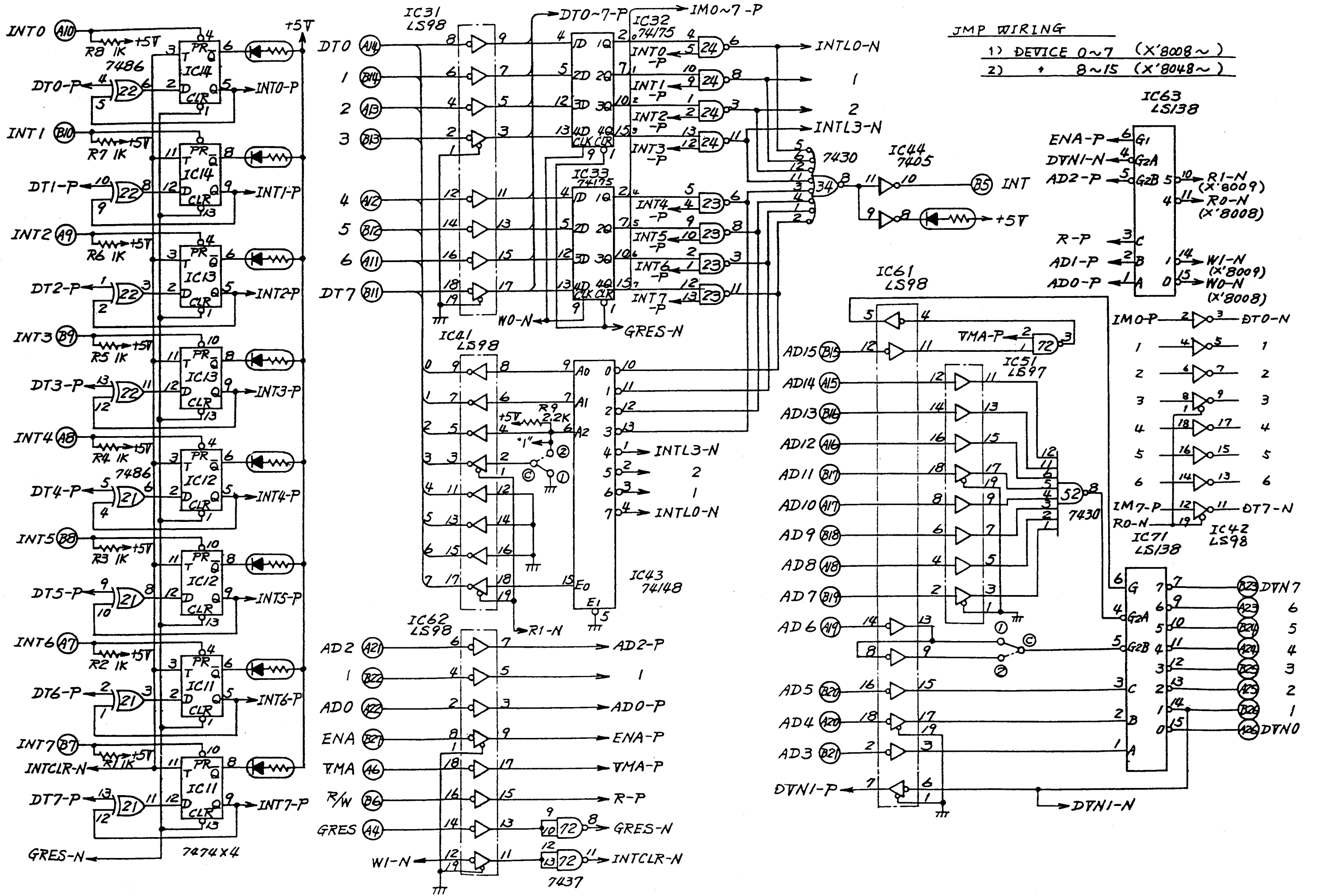


ANALOG BUS LINES

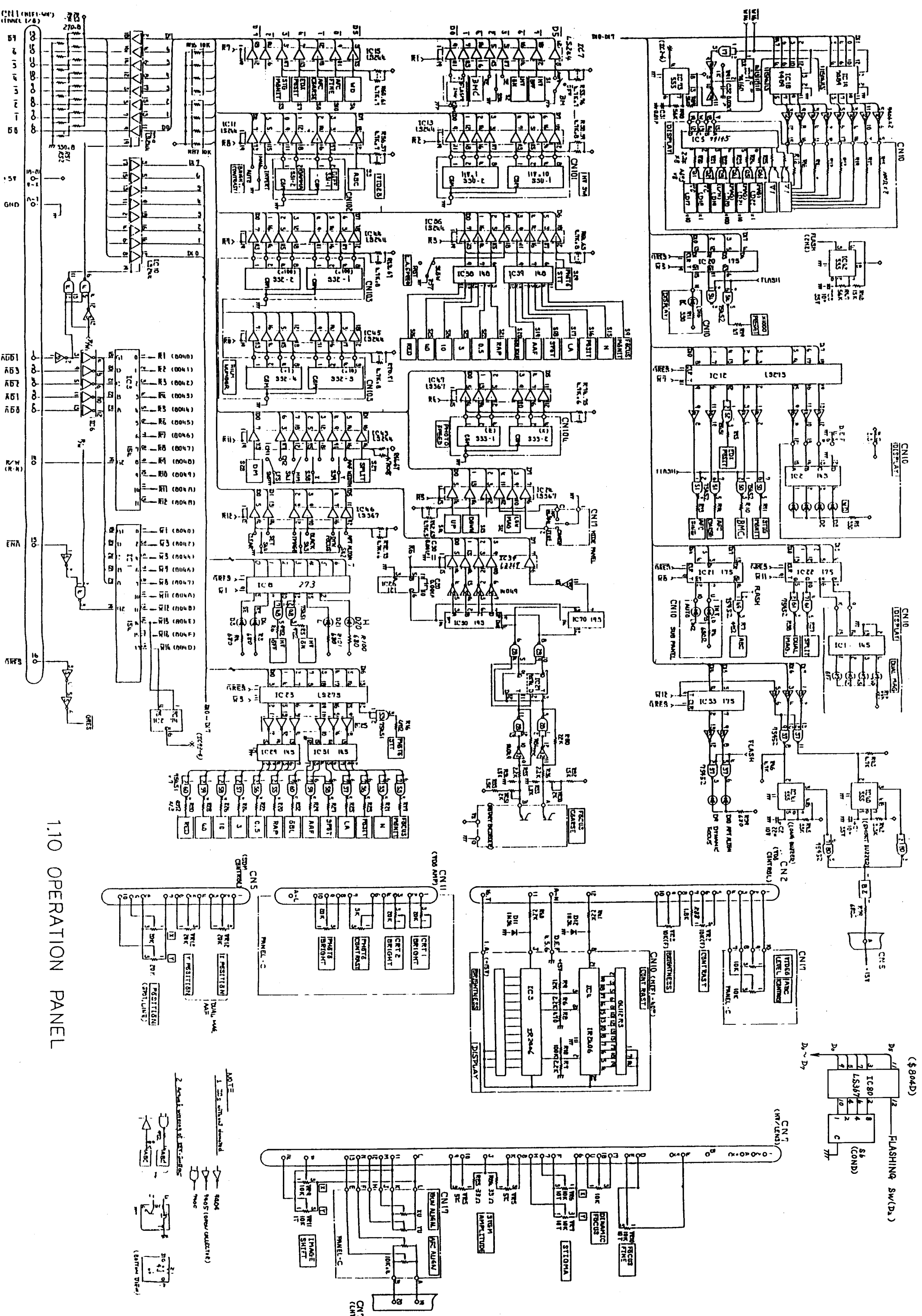
1.6 MOTHER BOARD WIRING (2)



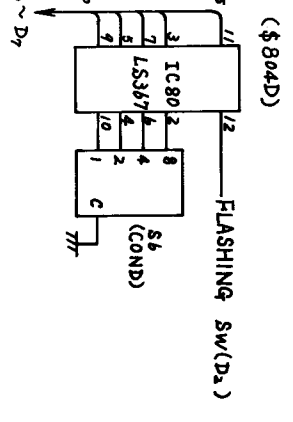
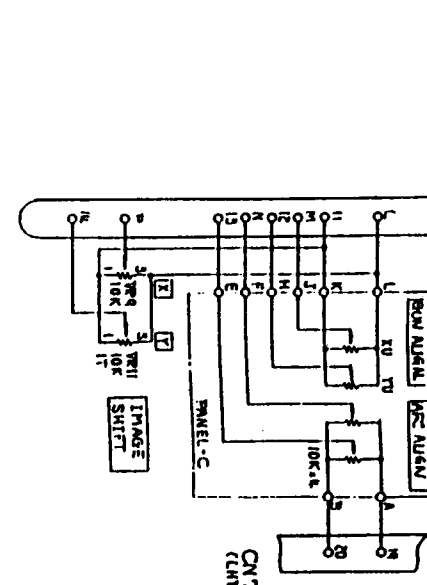
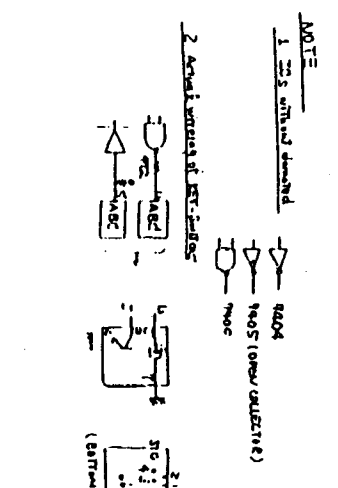
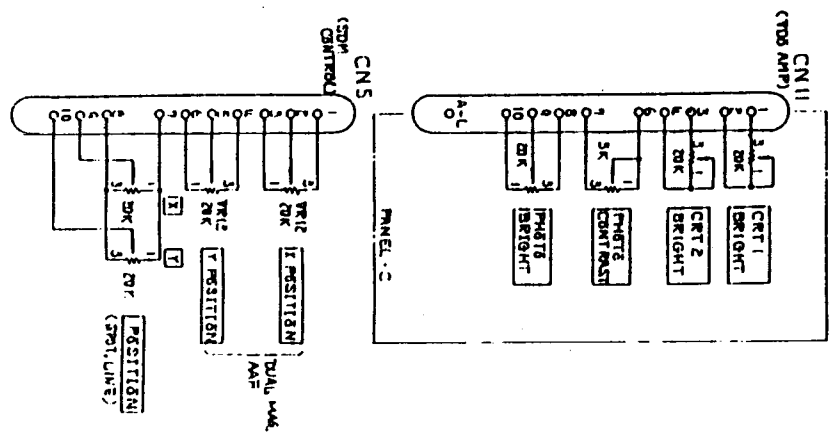
1.7 ROM BOARD



1.8 INT VECT BOARD

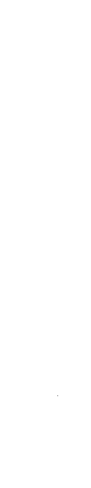
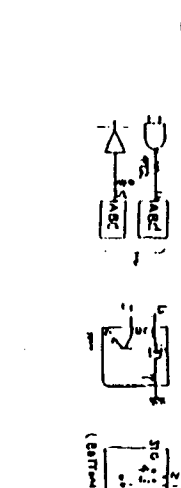
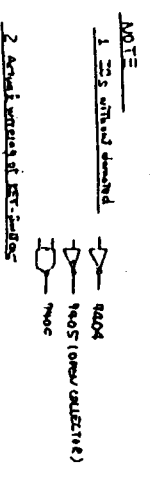
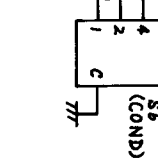


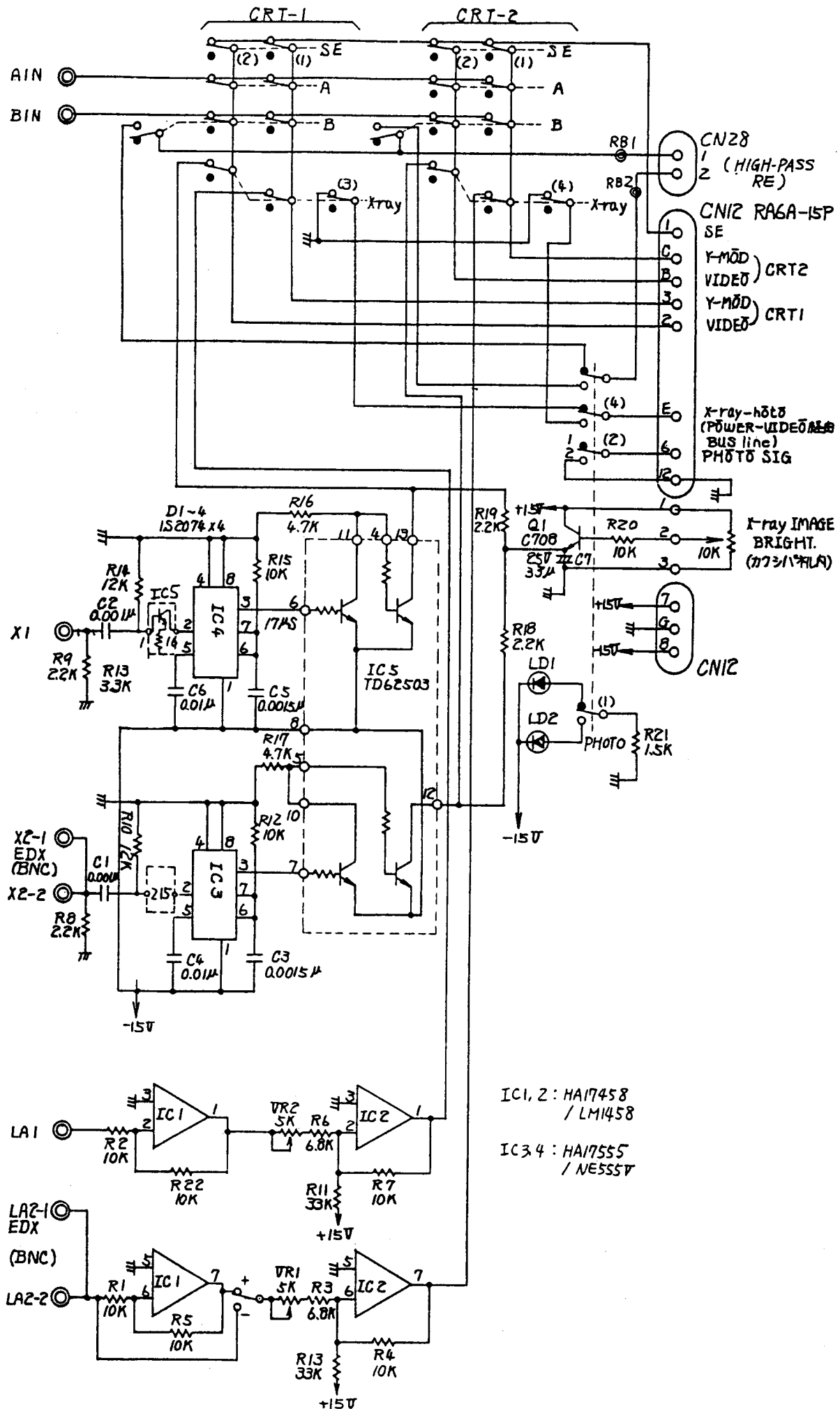
1.10 OPERATION PANEL



(S804D)

FLASHING SW(D2)

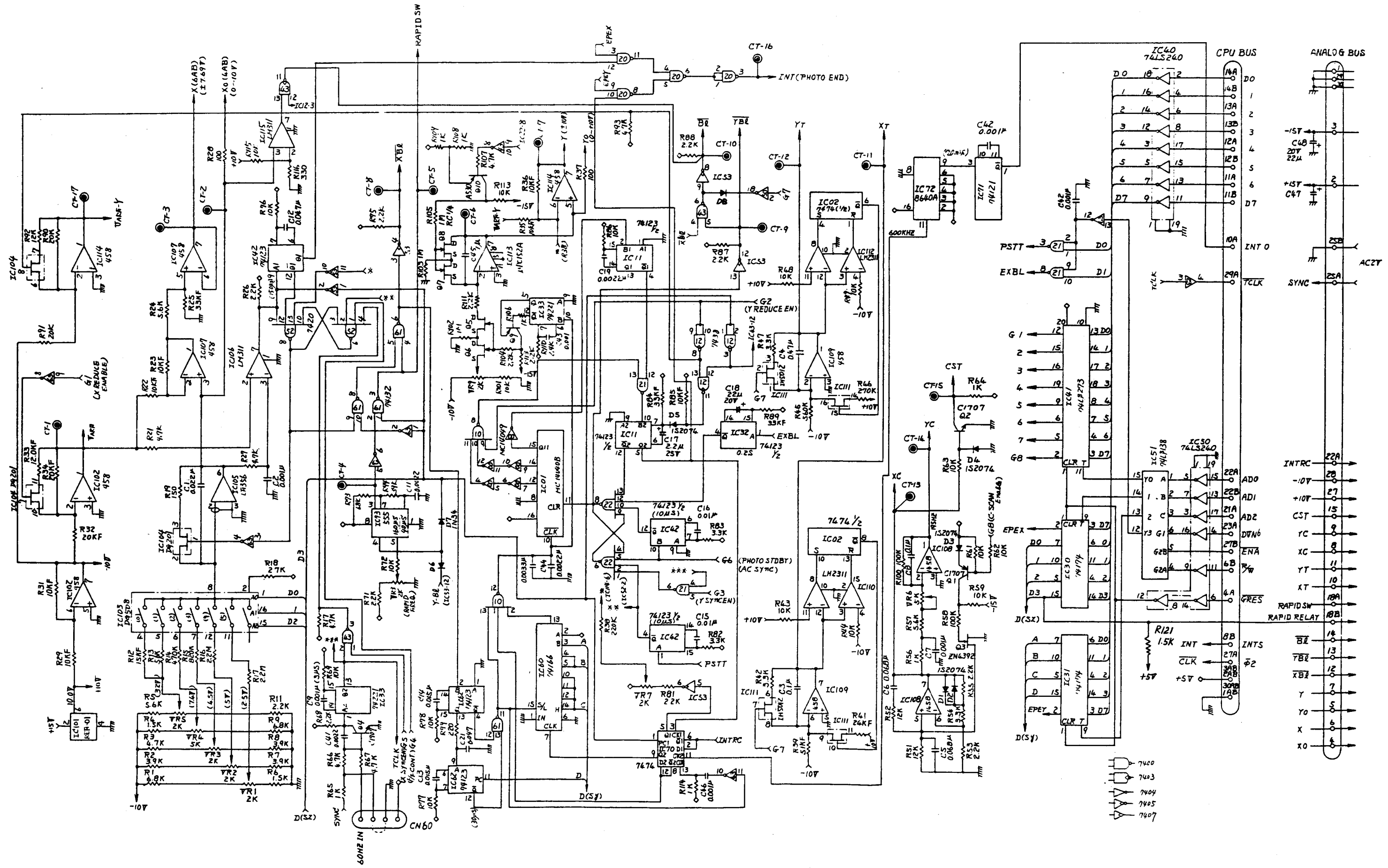




IC1, 2 : HA17458 / LM1458

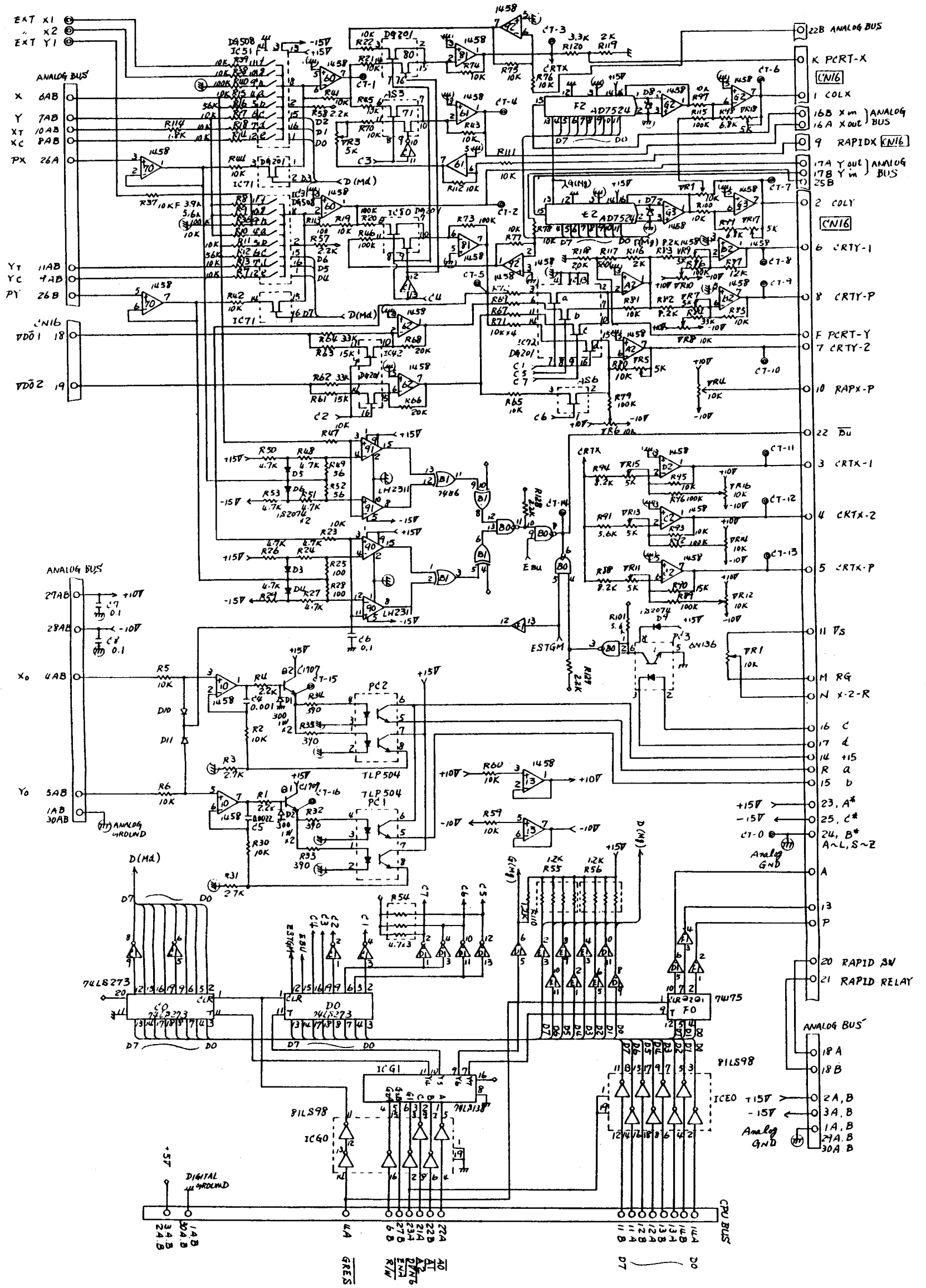
IC3, 4 : HA17555 / NE555

1.11 SIGNAL SELECTOR



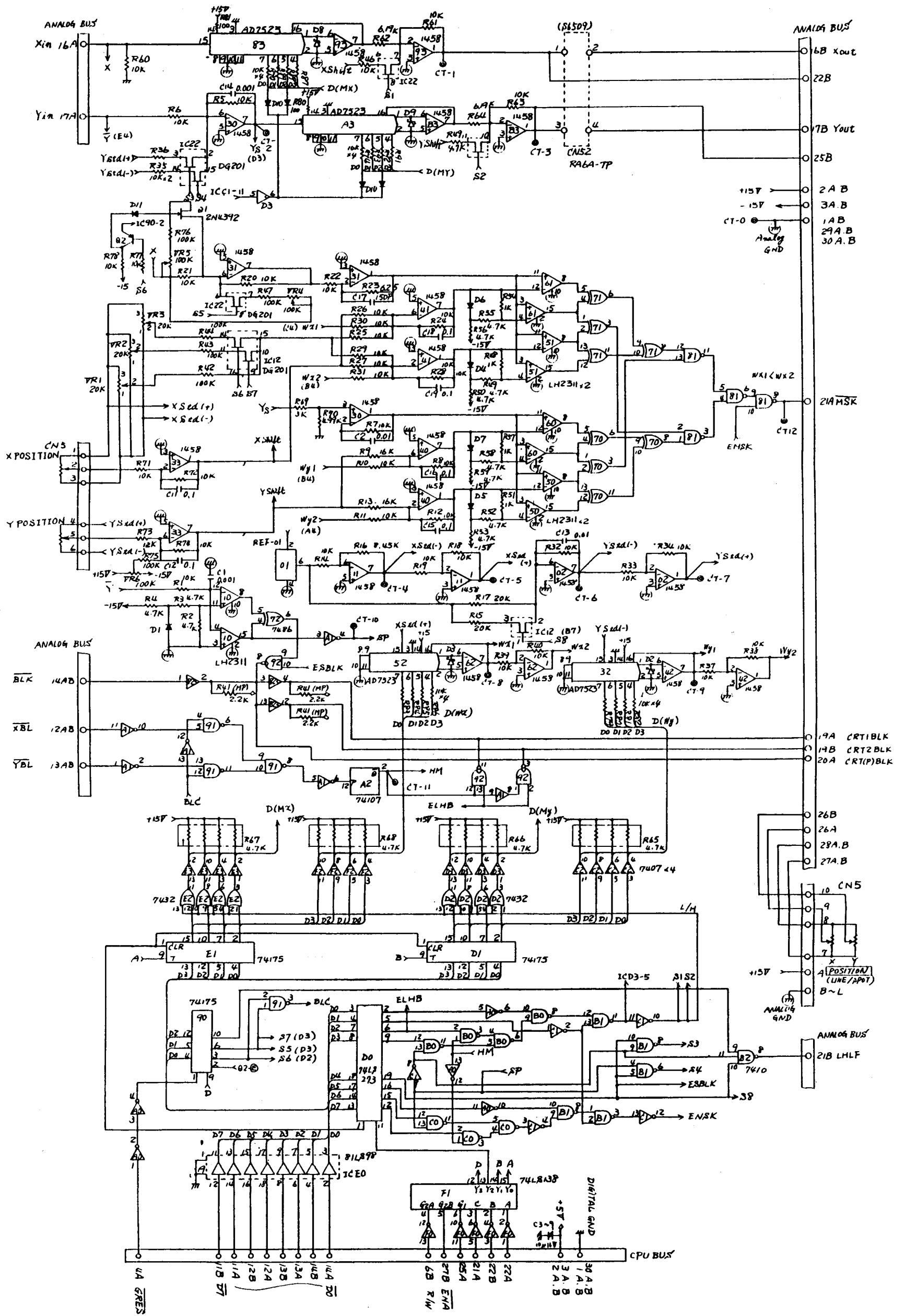
1.12 SWEEP GENERATOR

1.13 MODE CONTROL

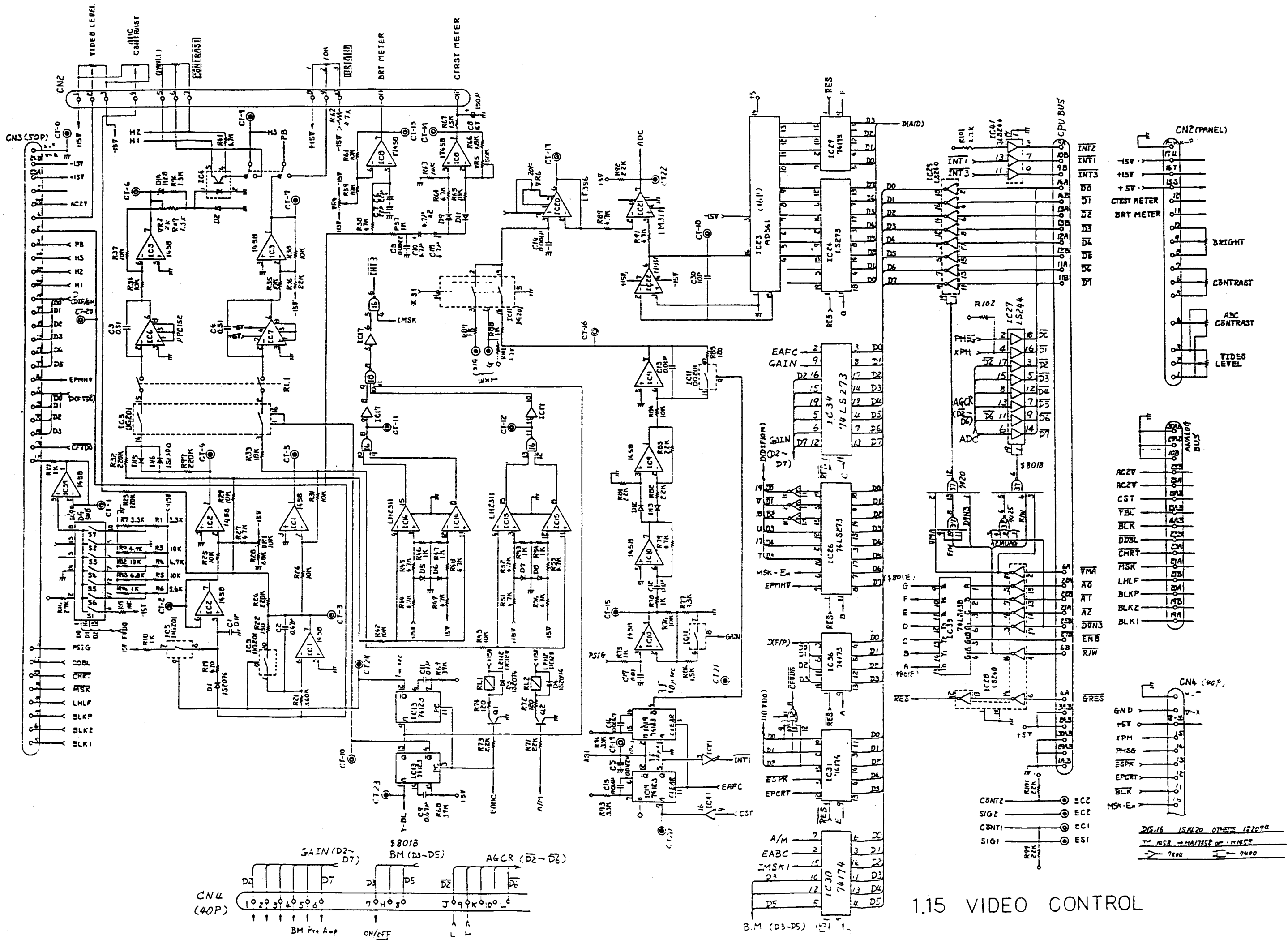


- D1.8 5082-2810 (Shottky Diode)
- D1-6 4-11 1S2078(M)
- IC 1458 → 74LS158 or 74LS159
- 7407
- 7405 → 7406
- 7403

1.14 SDM CONTROL



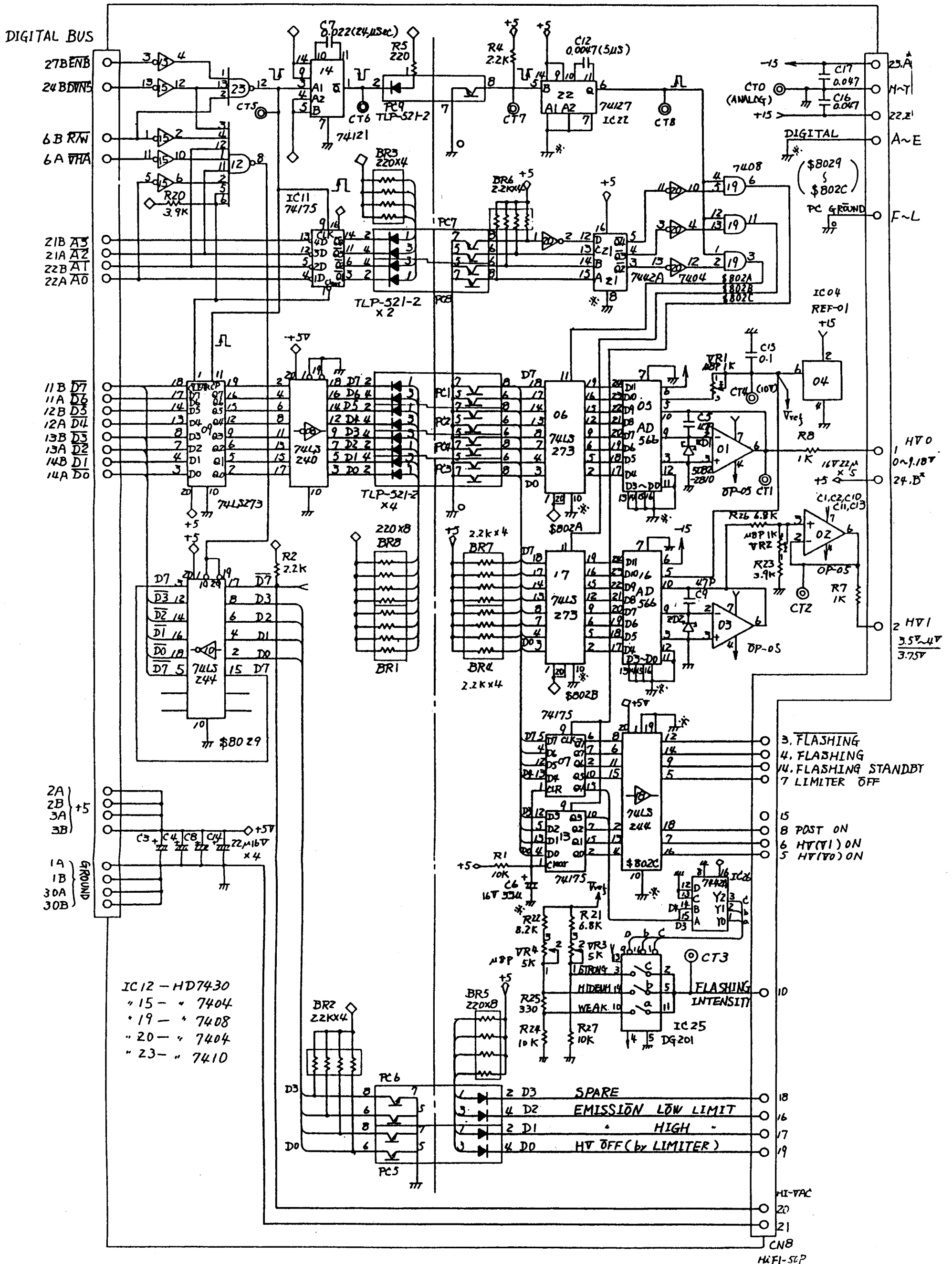
- D2, 3, 8, 9 S082-2810 (Shottky Diode)
- D10 MPM54H (Pseudo Array)
- ▷ 7404 ▷ 7405
- ▷ 7407 ▷ 7400
- ▷ 7403
- 1458 → 141458 or LM1458
- ⊕ Analog Ground ⊕ Digital Ground



1.15 VIDEO CONTROL

DIS.16 15M20 OTHER 12202
 MSB - MATHEC
 1000 7400

1.18 HV CONTROL



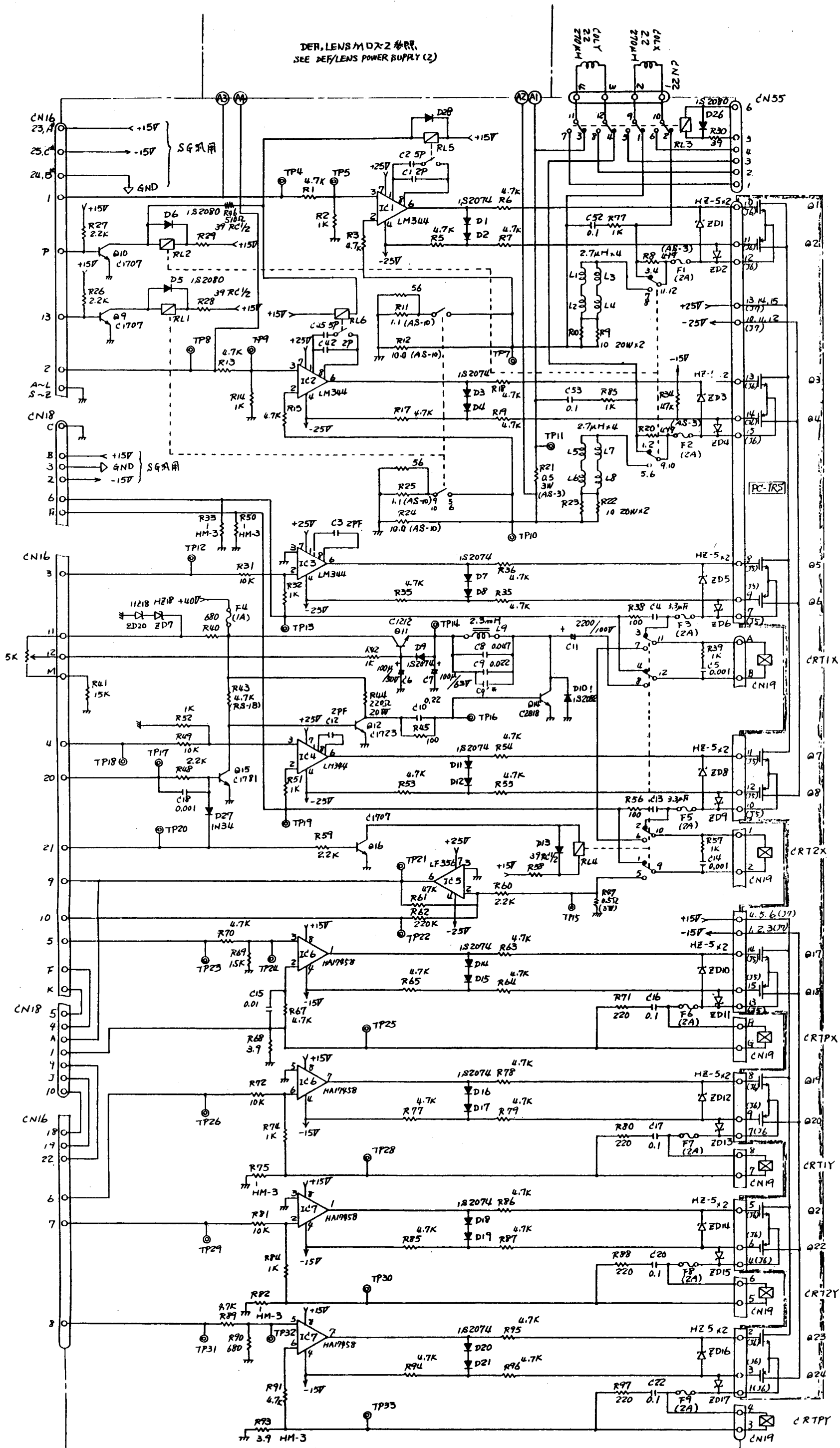
IC12 - HD7430
 " 15 - " 7404
 " 19 - " 7408
 " 20 - " 7404
 " 23 - " 7410

3. FLASHING
 4. FLASHING
 14. FLASHING STANDBY
 7. LIMITER OFF
 15
 8. POST ON
 6. HV(V1) ON
 5. HV(V0) ON

2 D3 SPARE
 4 D2 EMISSION LOW LIMIT
 HIGH
 4 D0 HV OFF (by LIMITER)

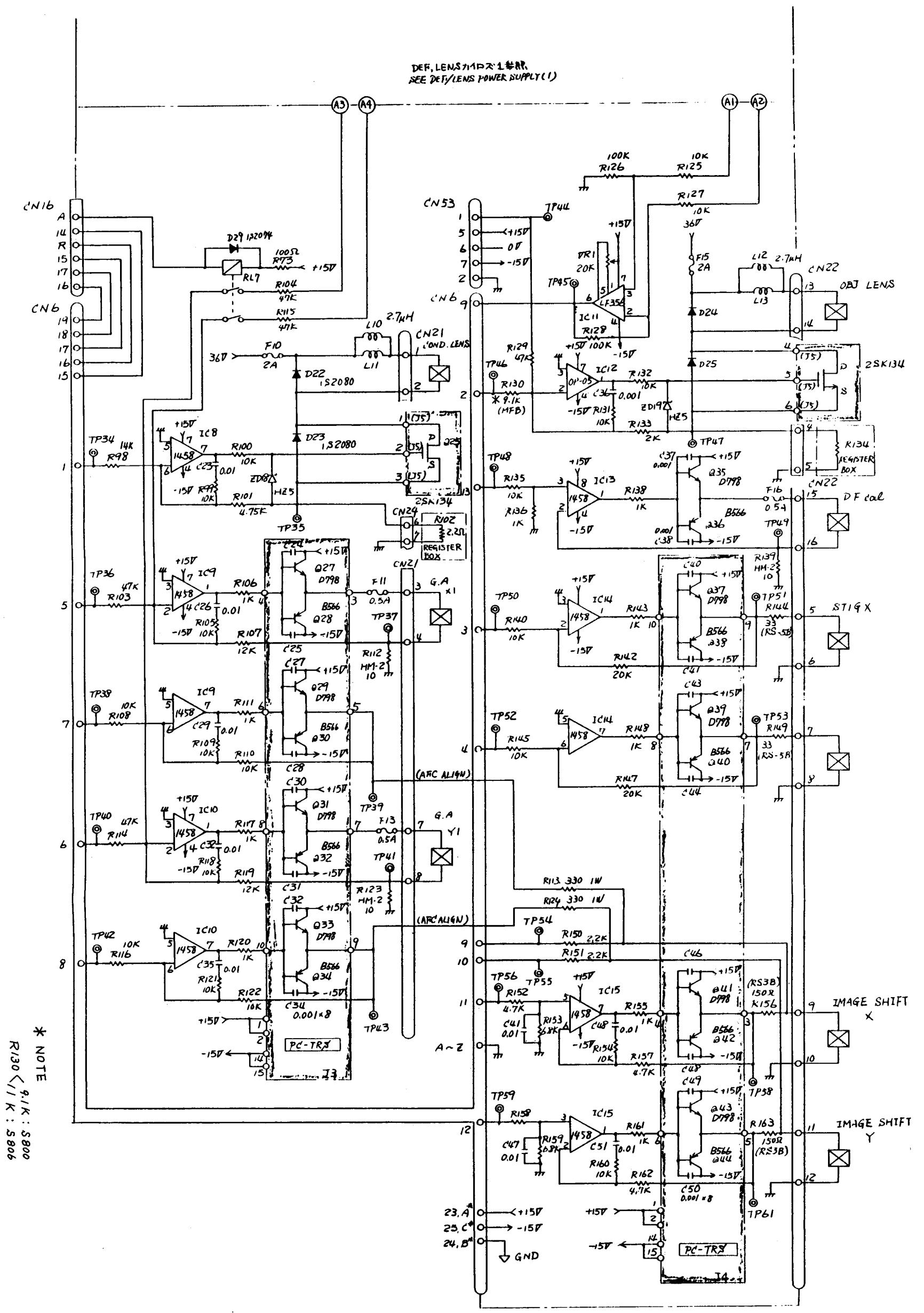
HI-VAC
 20
 21
 CN8
 H&F-51P

DEF. LENS MDX-2 ARR.
SEE DEF/LENS POWER SUPPLY (2)

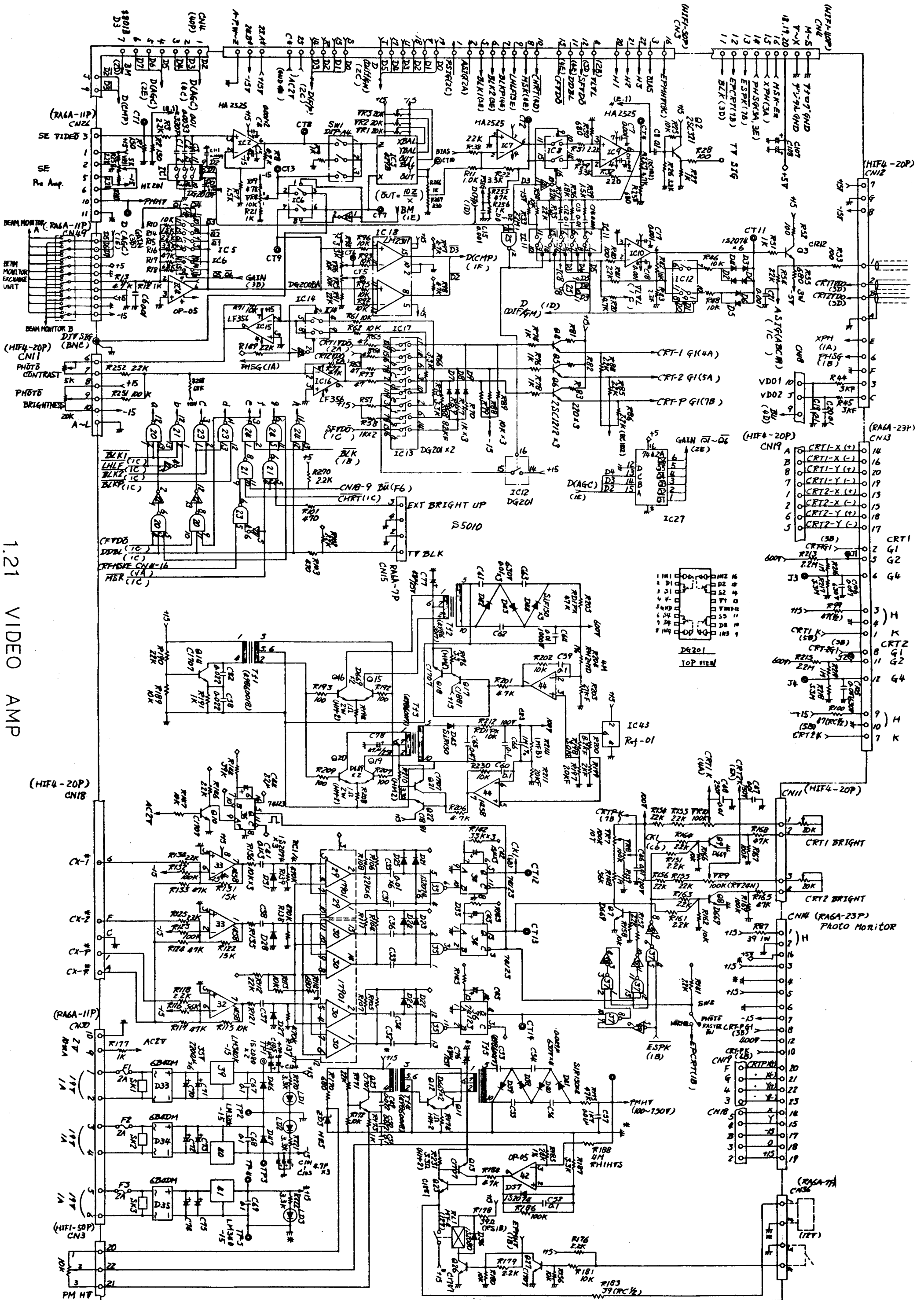


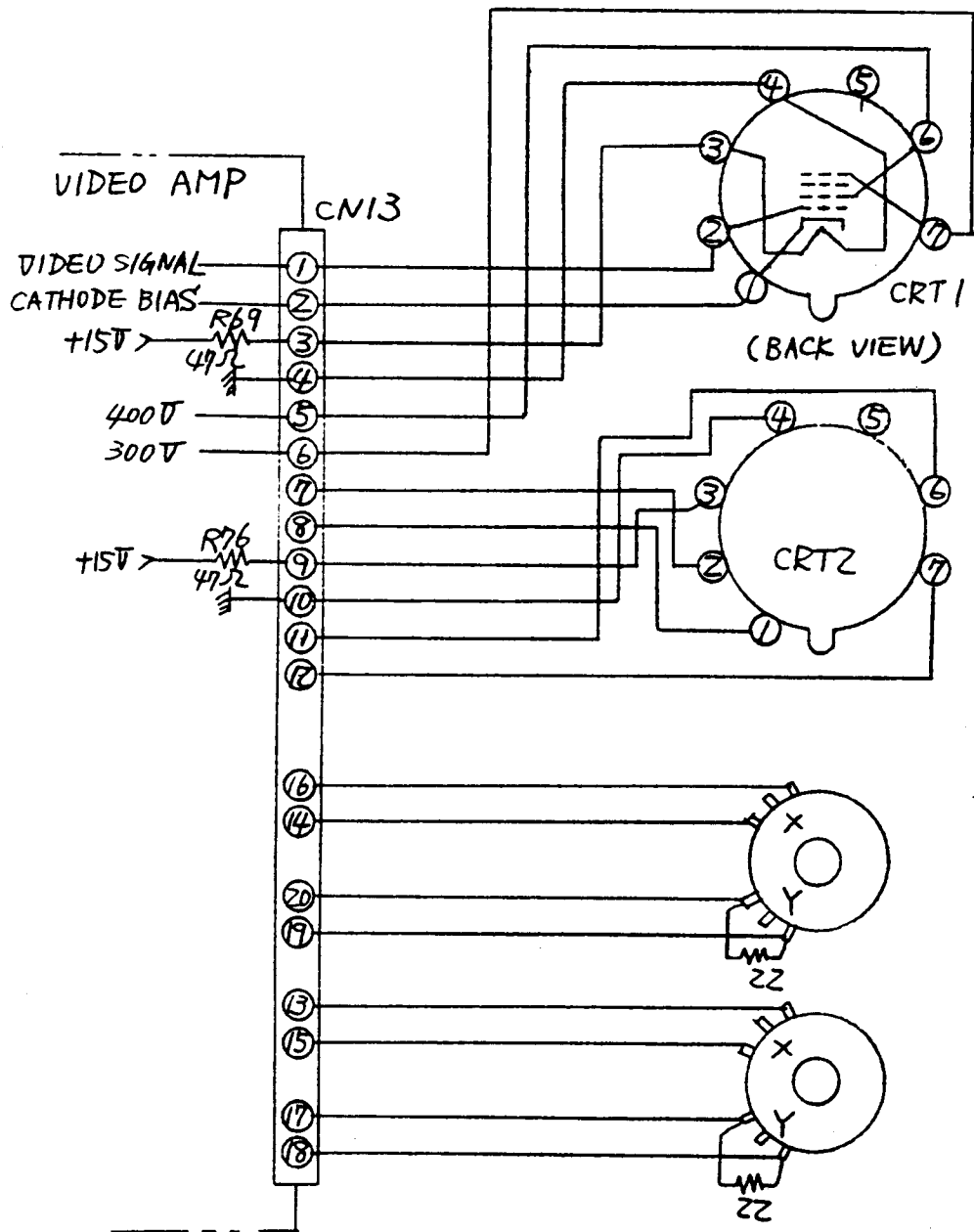
1.19 DEF/LENS POWER SUPPLY (1)

1.20 DEF/LENS POWER SUPPLY (2)

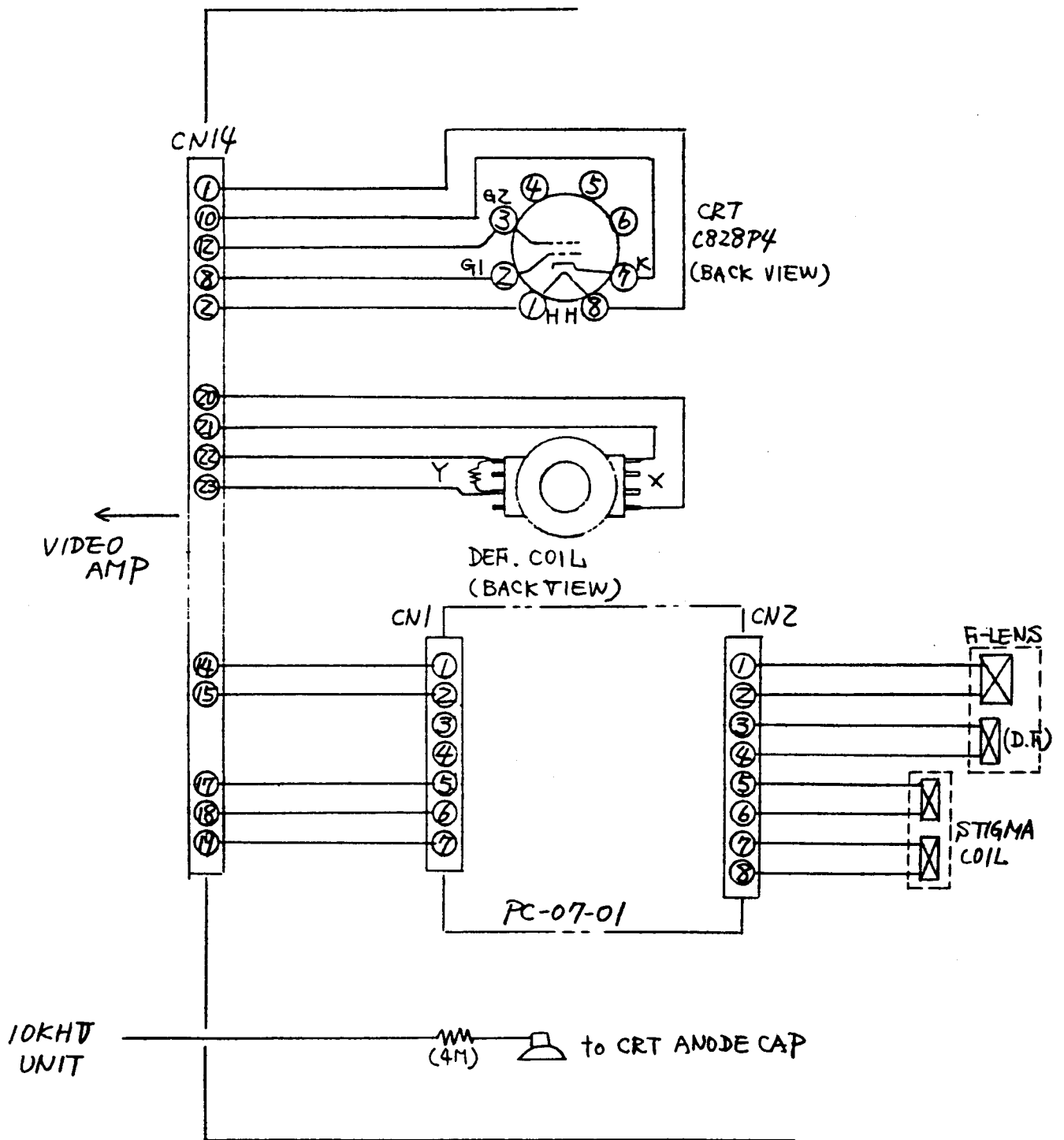


1.21 VIDEO AMP

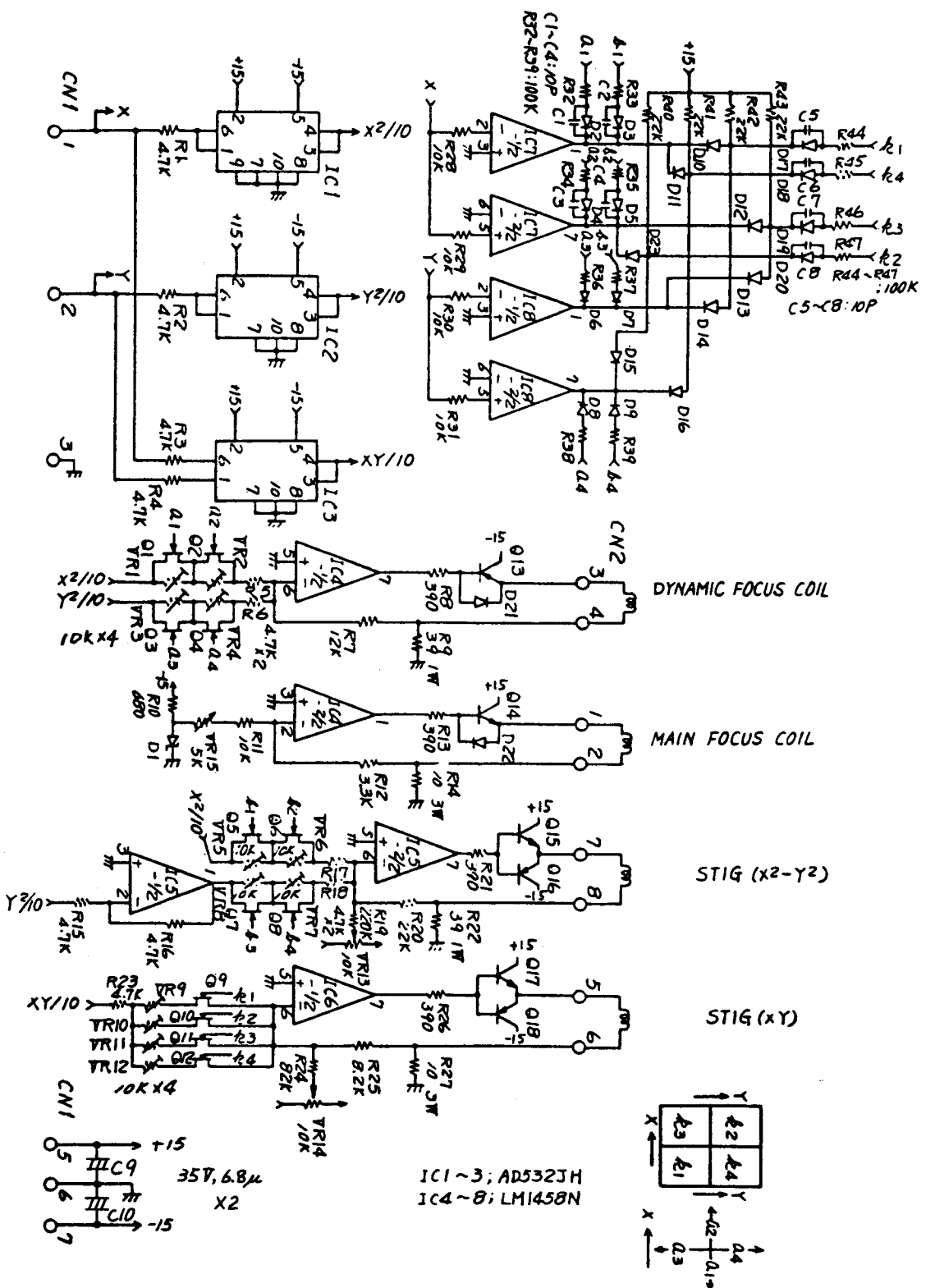




1.22 VIEW CRT UNIT



1.23 PHOTO CRT UNIT



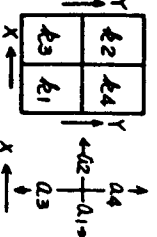
CN1
 1
 2
 3
 4
 5
 6
 7

+15
 -15

35V, 6.8μ X2
 IC9
 IC10

IC1-3: AD532JH
 IC4-8: LM1458N

STIG COIL 24Ω
 FOCUS COIL 28Ω
 DYN.FOCUS COIL 10Ω

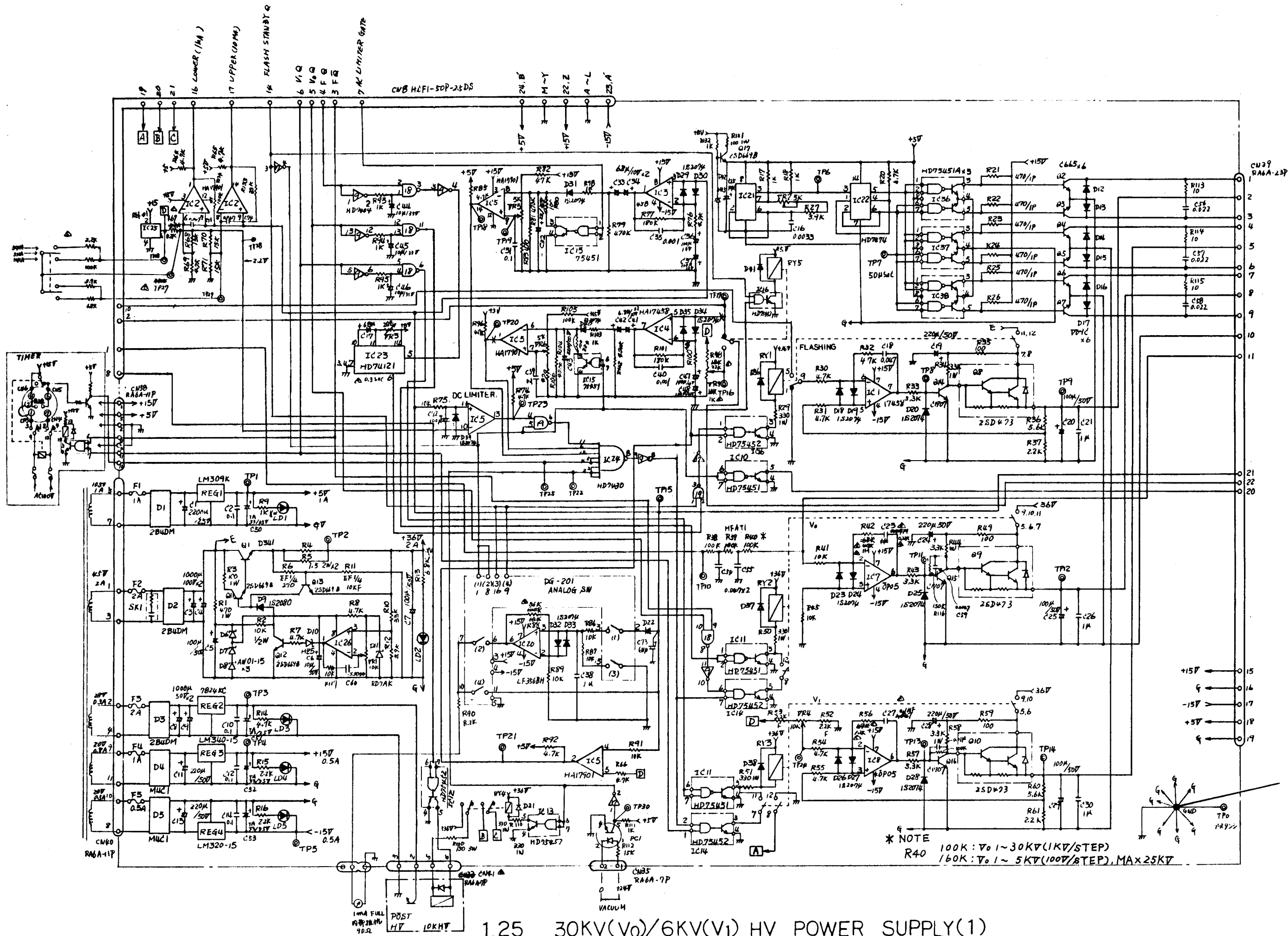


DYNAMIC FOCUS COIL

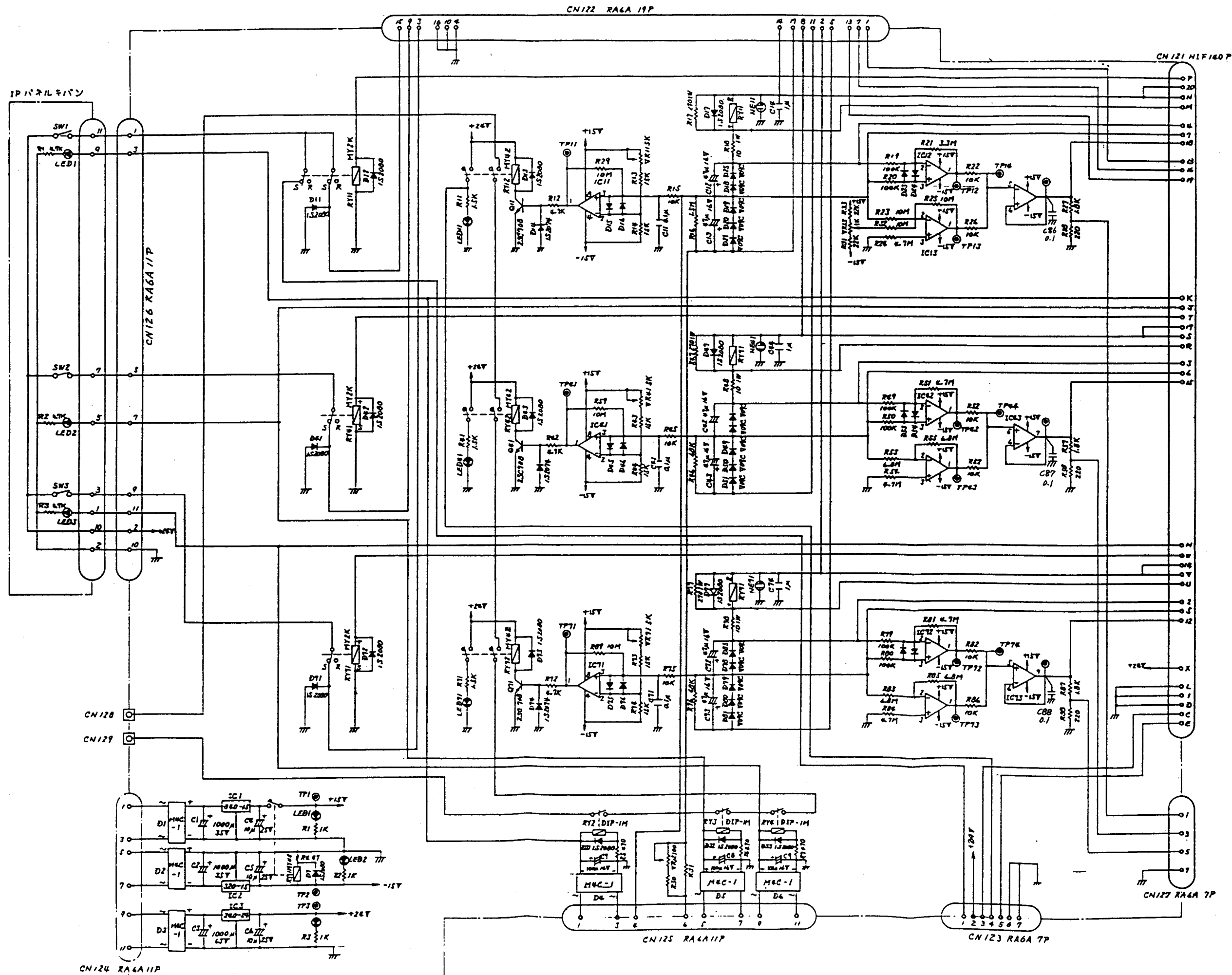
MAIN FOCUS COIL

STIG (X2-Y2)

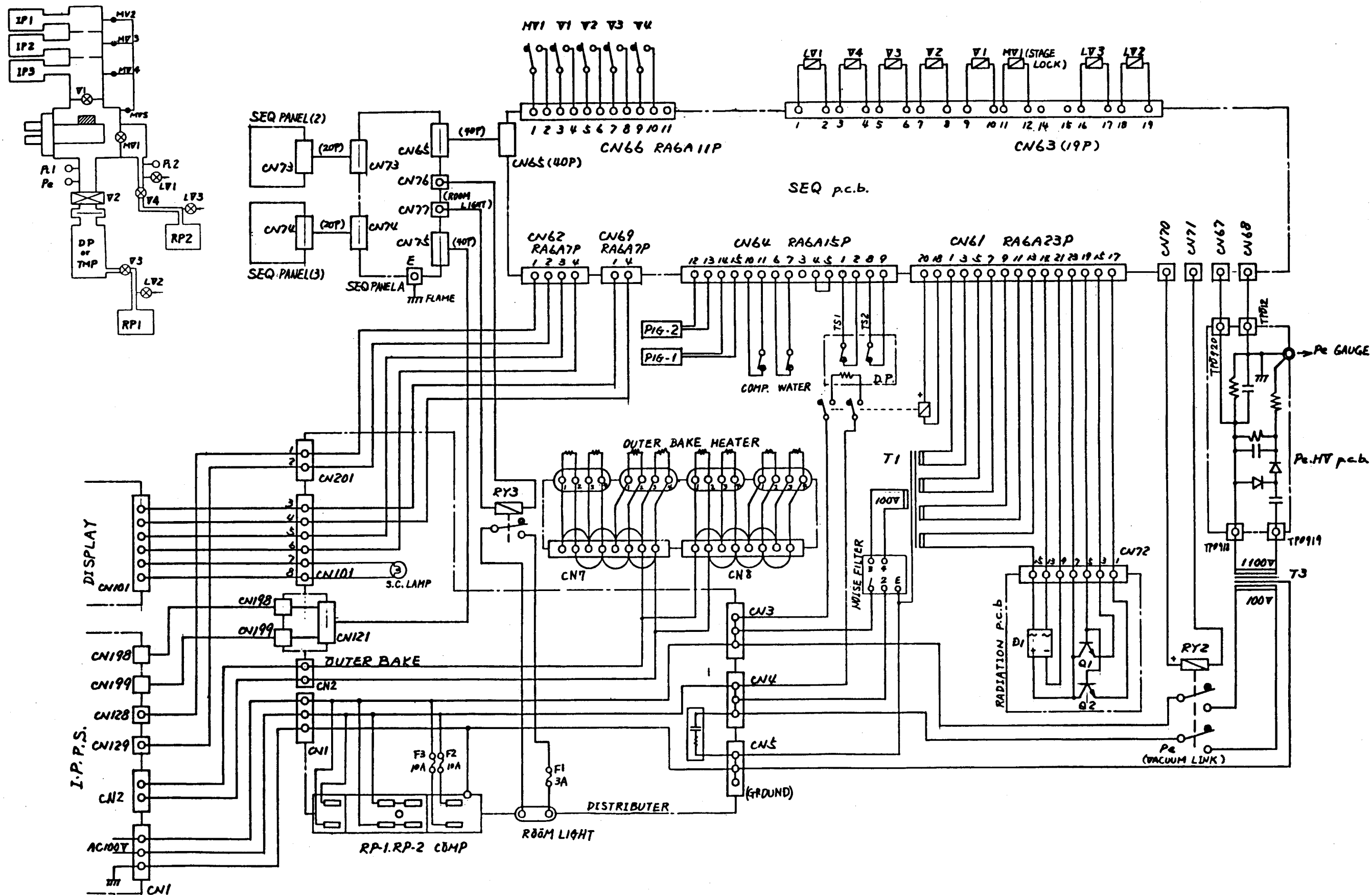
STIG (XY)



1.25 30KV(V₀)/6KV(V₁) HV POWER SUPPLY(1)

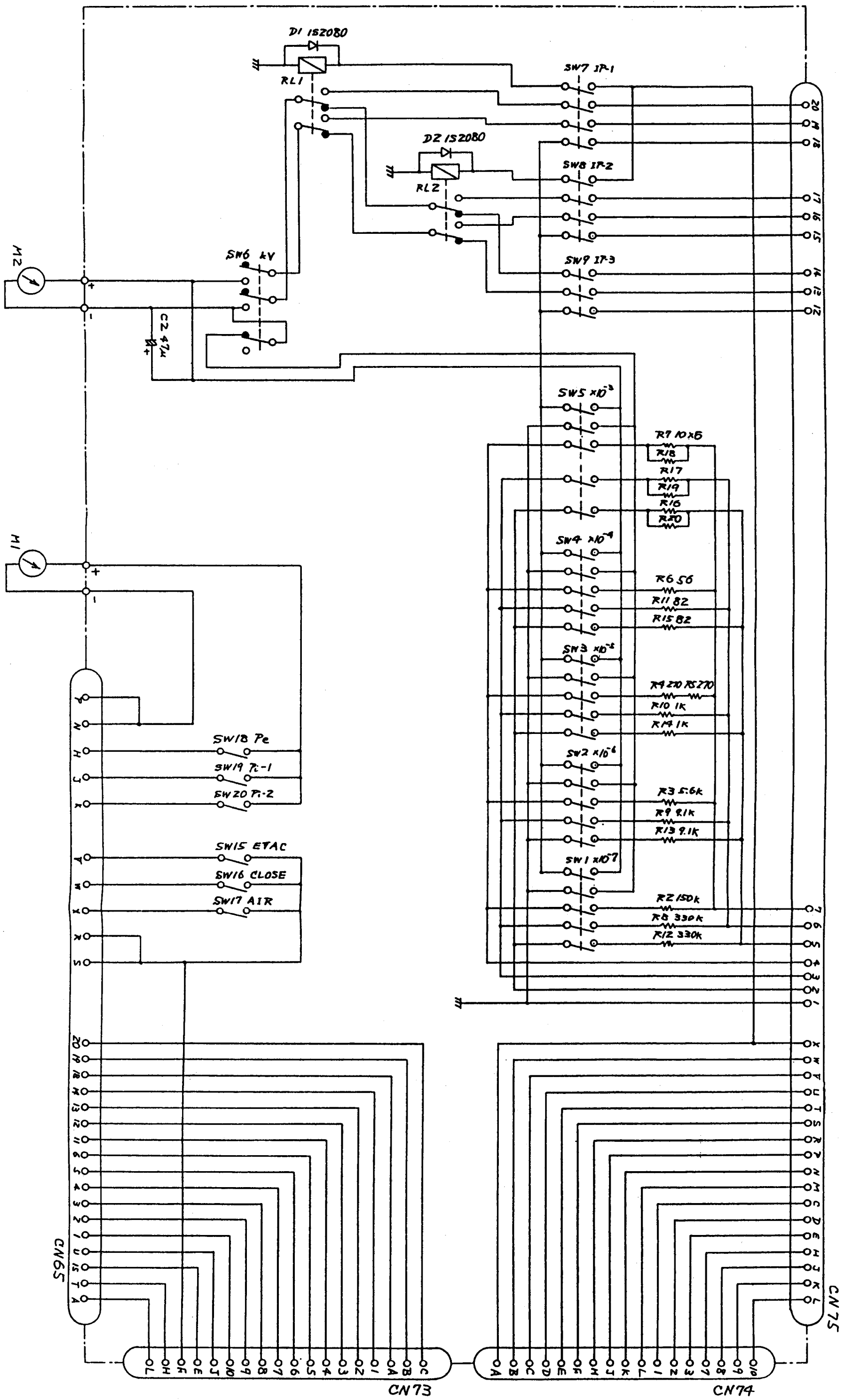


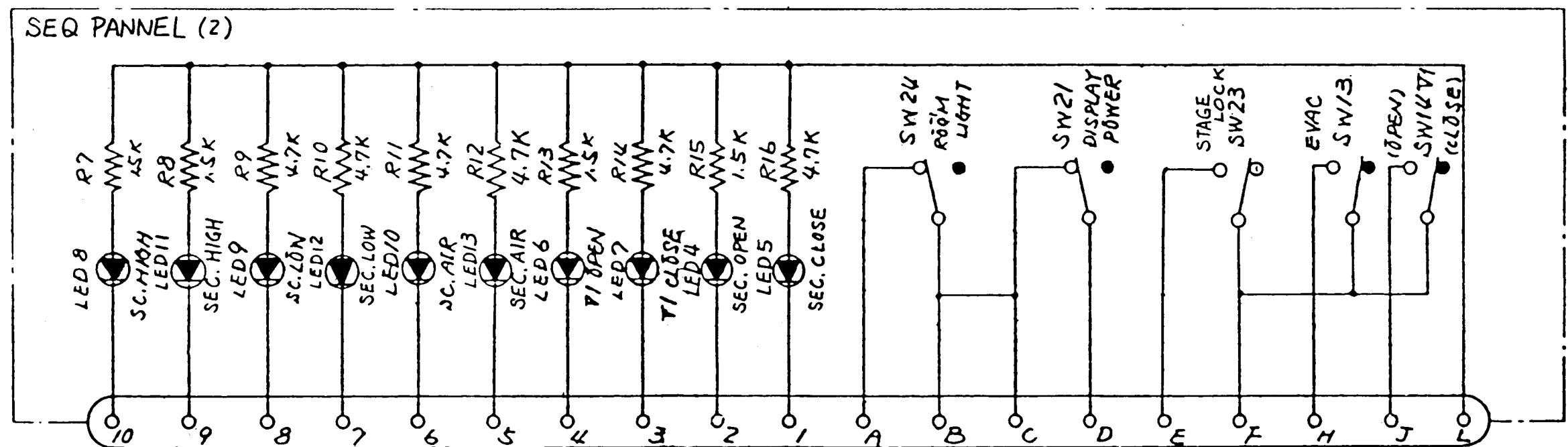
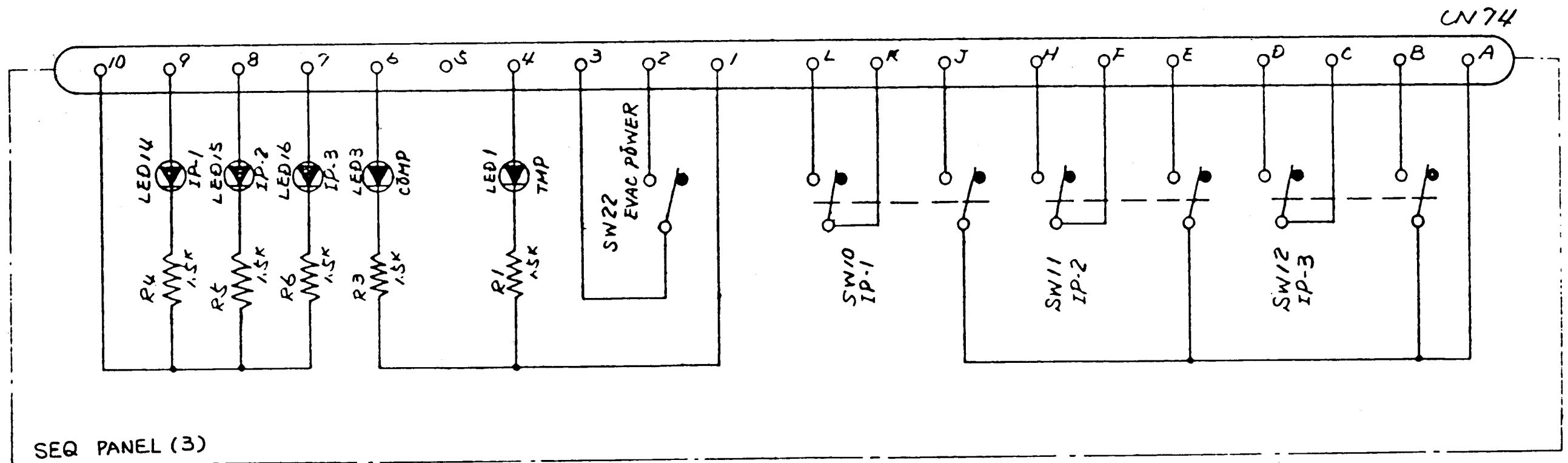
1.29 ION PUMP/BAKE CONTROL



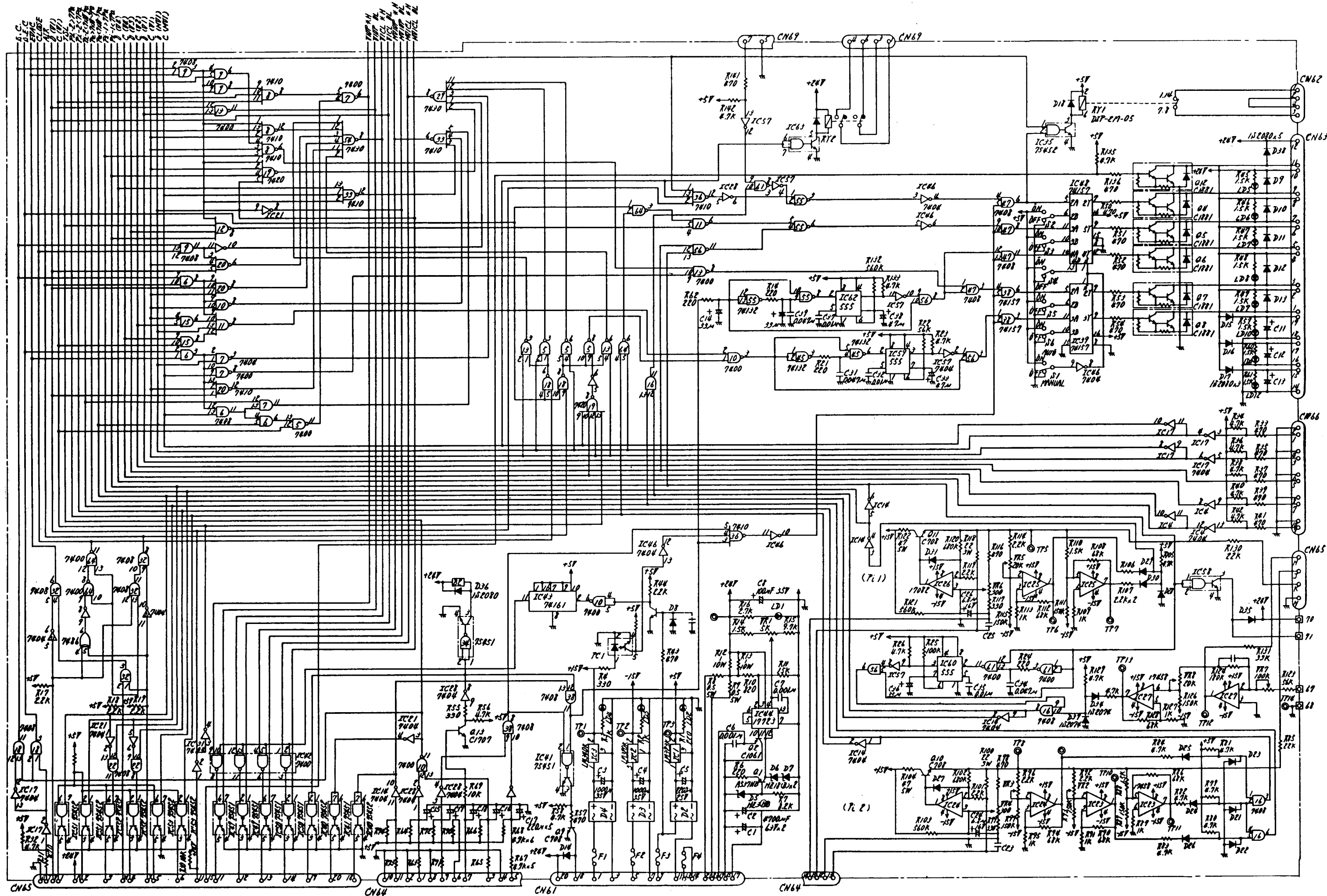
1.30 EVAC. SEQUENCE WIRING DIAGRAM

1.31 EVAC SEQUENCE OPERATION PANEL (1)

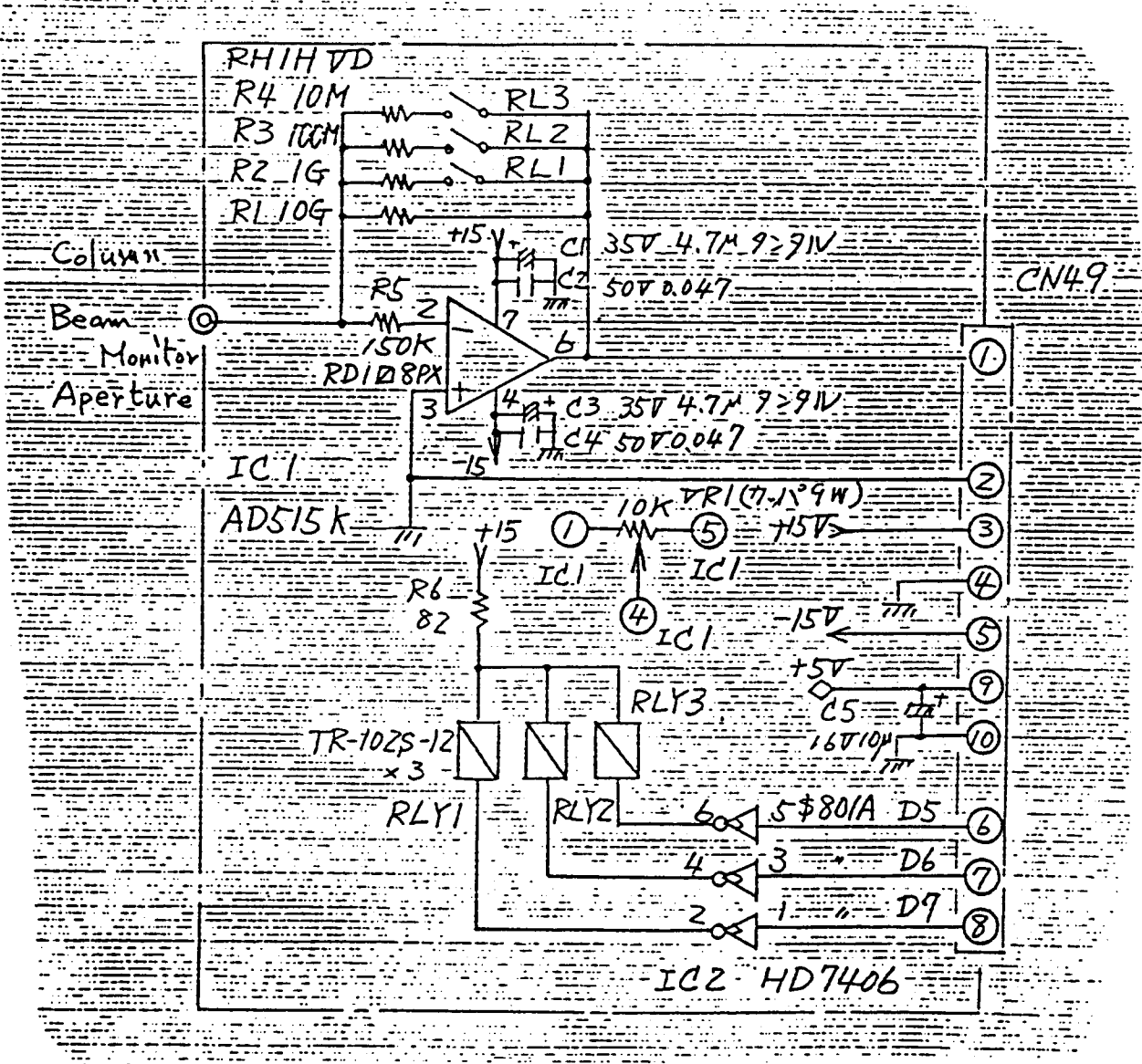




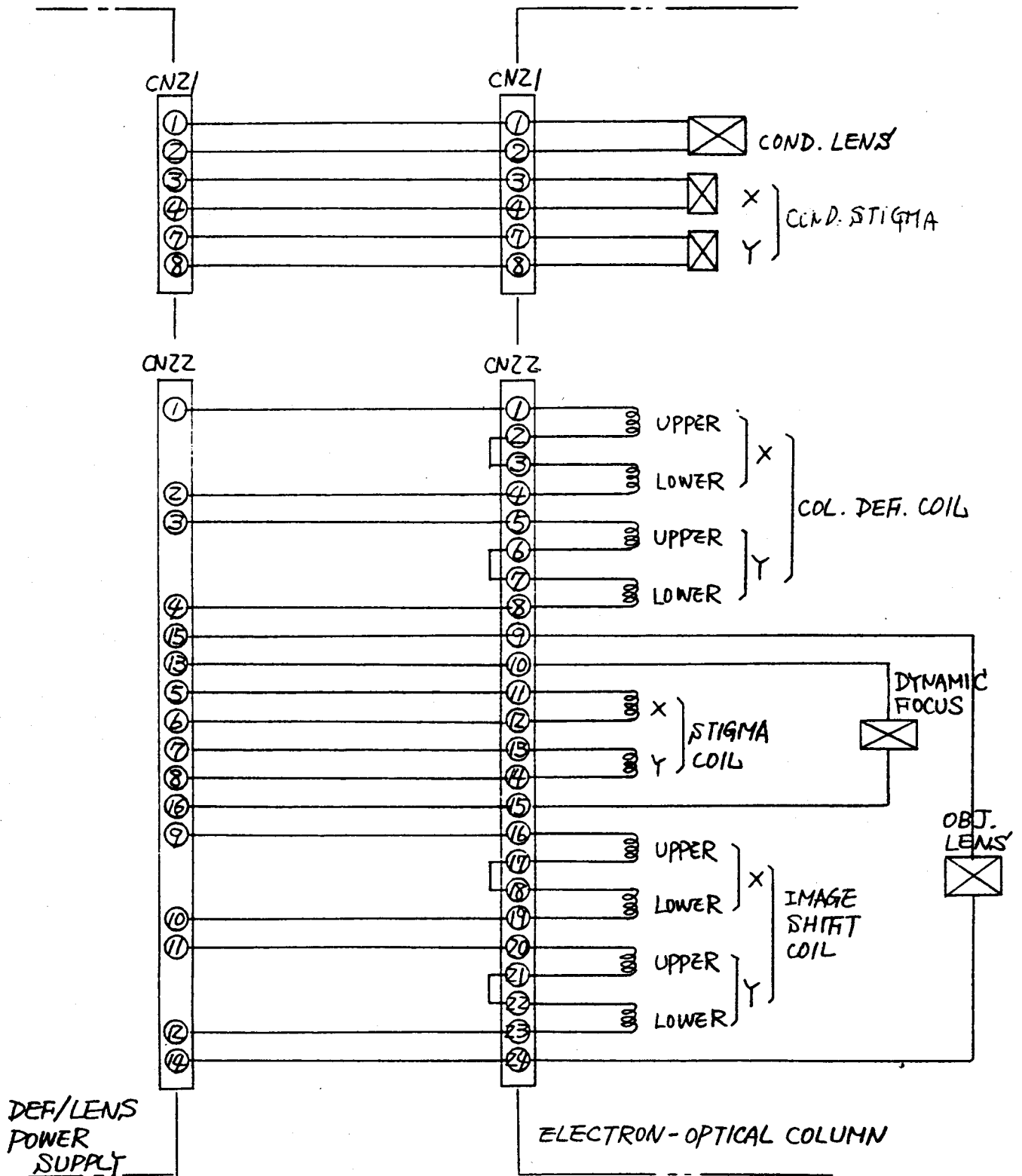
1.32 EVAC. SEQUENCE OPERATION PANEL



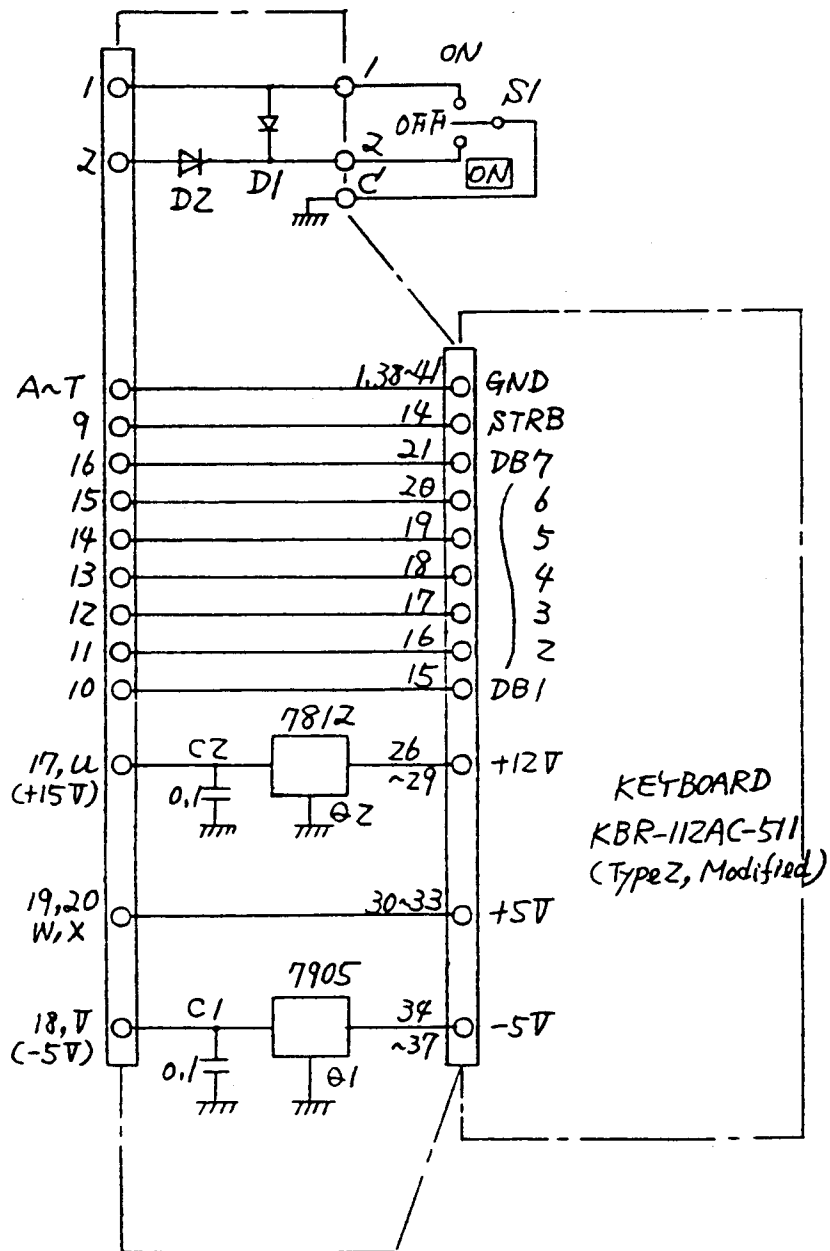
1.33 EVAC SEQUENCE



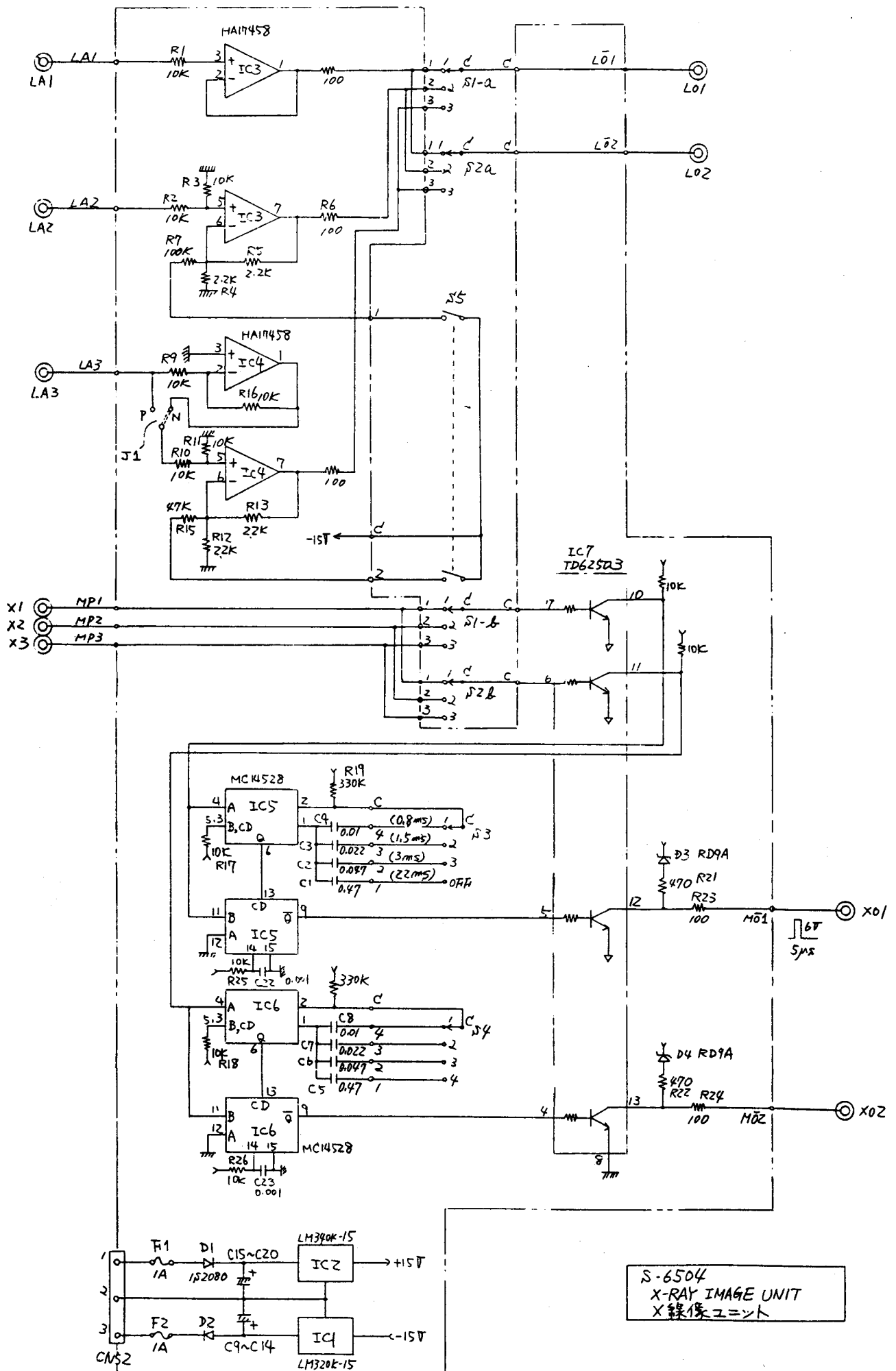
1.34 BEAM MONITOR PRE AMP



1. 35 DISPLAY-COLUMN WIRING DIAGRAM

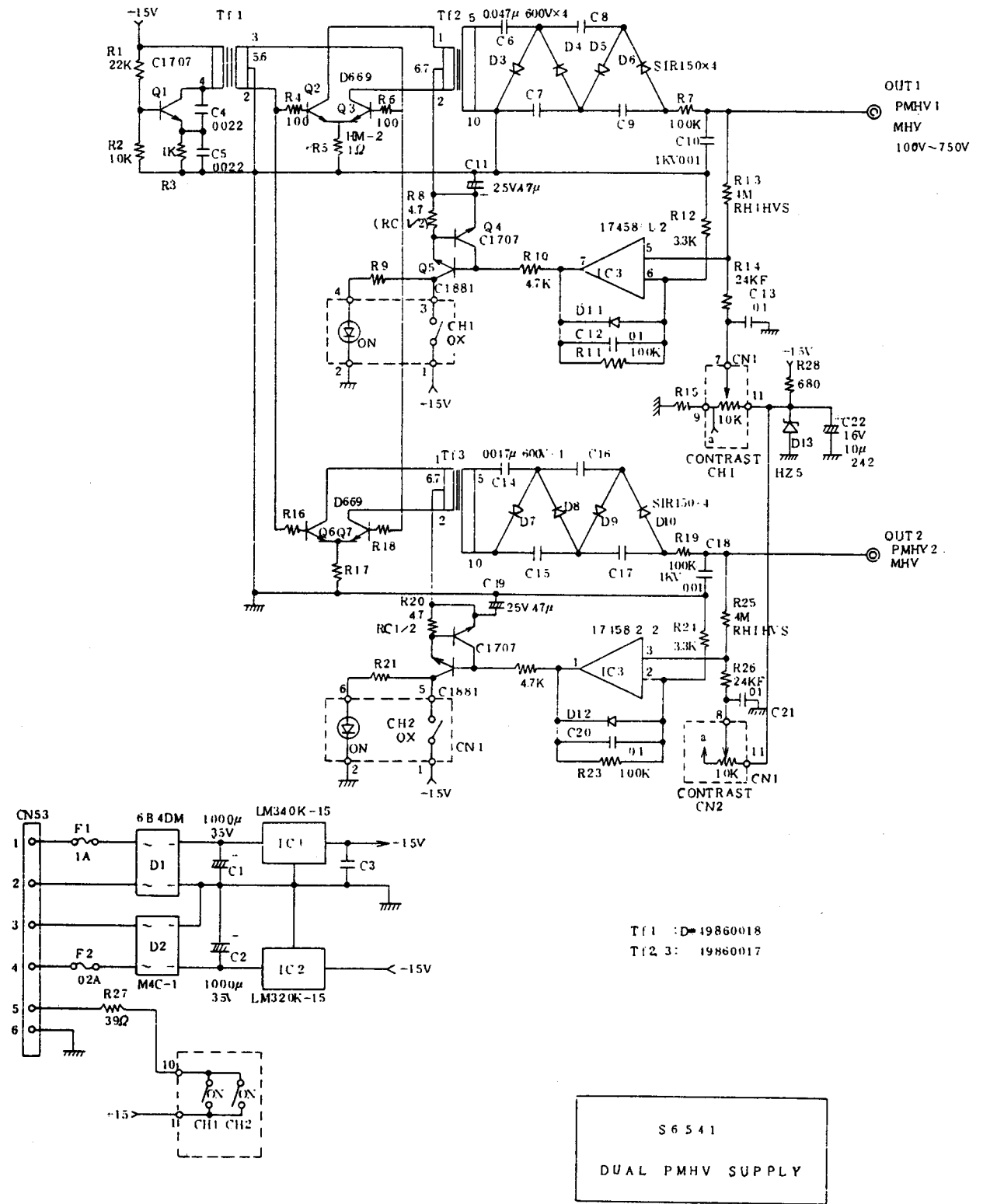


2.1 S-6501 DATA ENTRY KEY BOARD



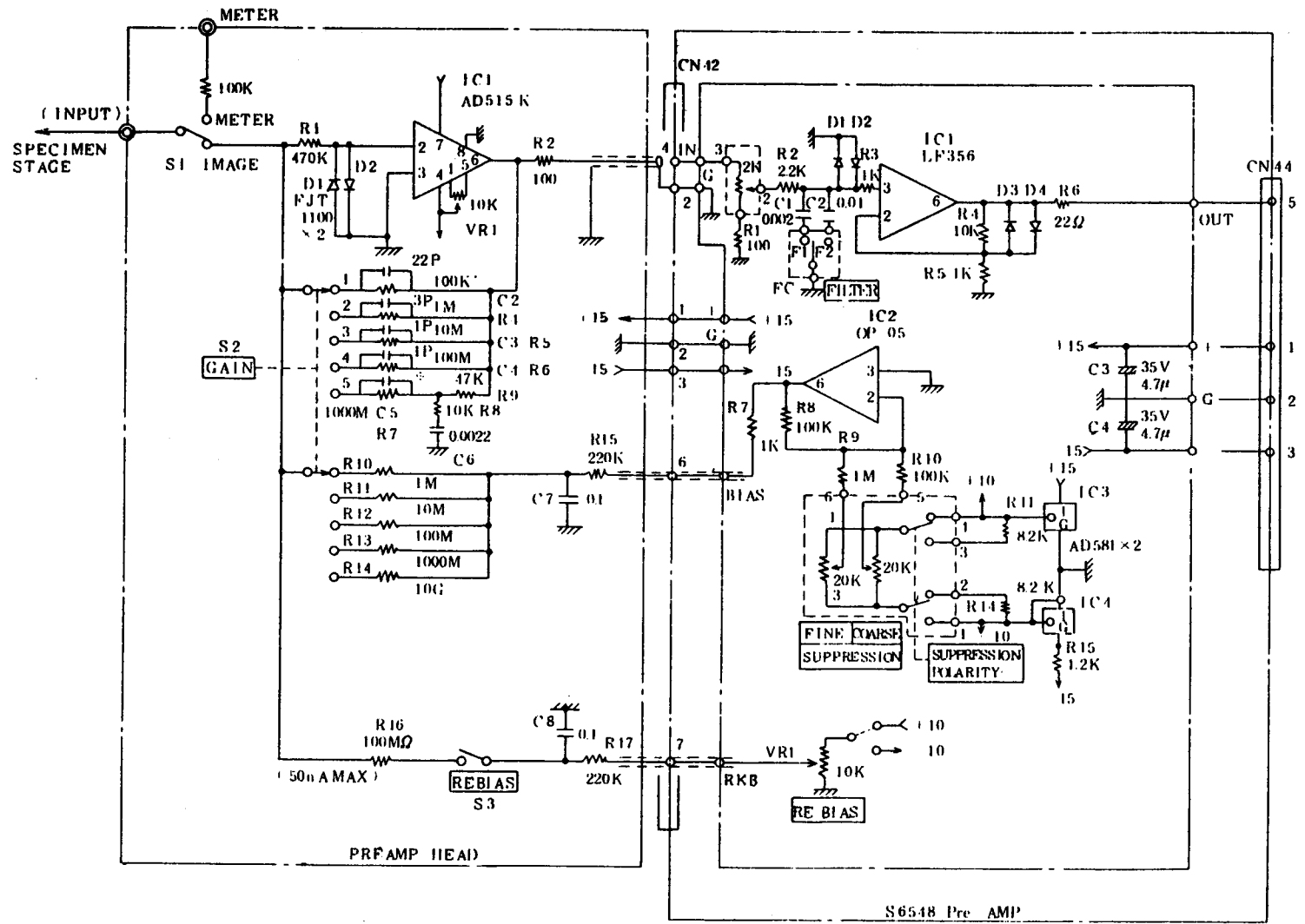
S-6504
X-RAY IMAGE UNIT
X線像ユニット

2.2 S-6504 X-RAY IMAGE UNIT

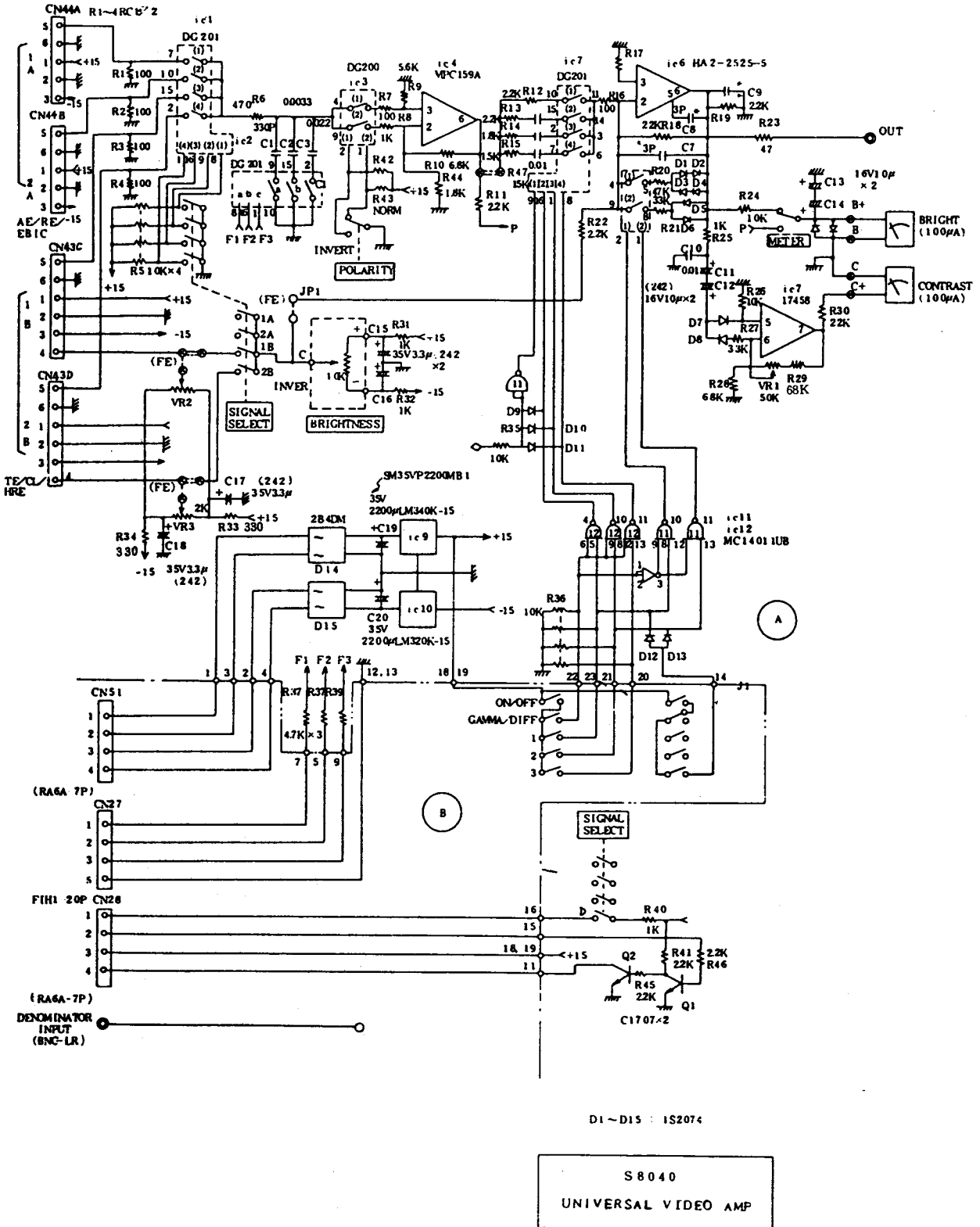


2.4 S-6541 DUAL PMHV UNIT

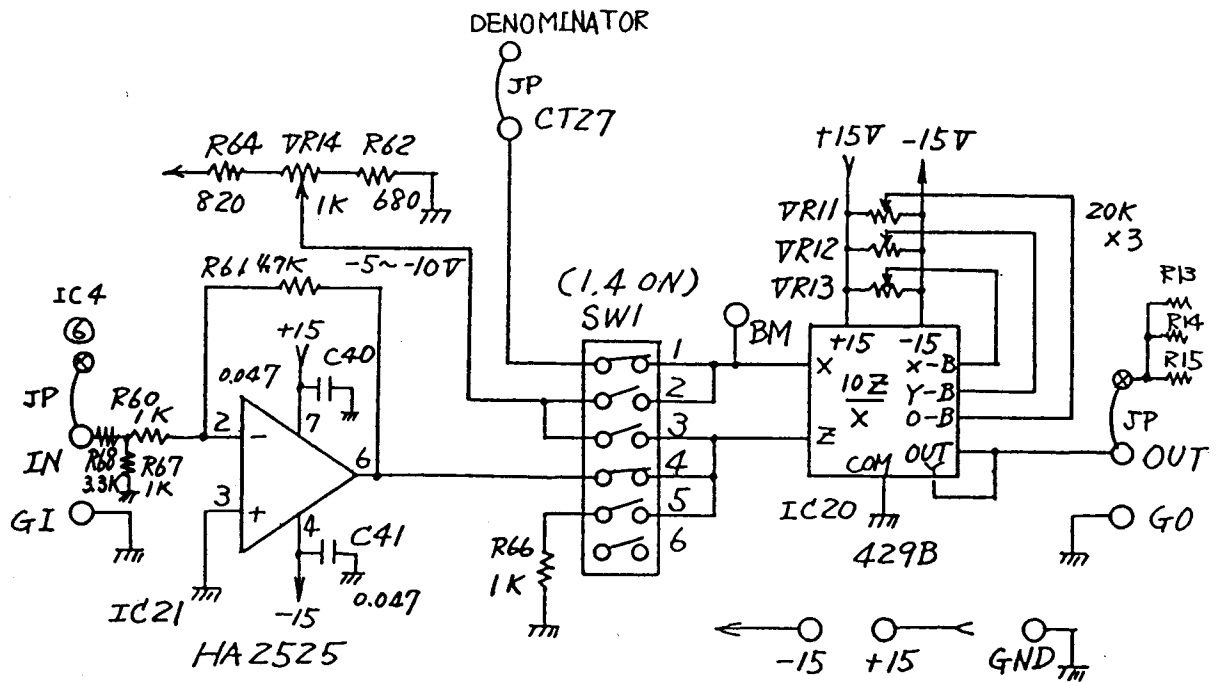
2.5 S-6542 PRE AMP UNIT



(S6542)
 AE PRE AMP
 (FOR AE, RE, EBIC)



2.6 S-8040 UNIVERSAL VIDEO AMP UNIT(1)



FE - Divider (For S-800)

S-8040 UNIVERSAL VIDEO AMP UNIT (2)

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