KUNG-FU MASTER™

INSTALLATION INSTRUCTIONS

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Telex: 172163 DATA EAST SNTA

WARNING

This equipment generates and uses radio frequency energy and if not installed and used properly, i.e., in strict accordance with the instructions manual, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device persuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

CAUTION

EMI Shield must be securely installed in order to protect against undesirable radio interference.

K U N G - F U M A S T E R

TABLE OF CONTENTS

NOTE: Schematic set for ASAHI model 6352 power supply was not available for inclusion in this manual at press time. Refer any problems to the DATA EAST Service Department.

KUNG-FU MASTER[tm]

G A M E P L A Y

1. You are a Kung-Fu Master. Your girlfriend has been kidnapped by criminals and locked up on the 5th floor of their headquarters. Get into their headquarters and save your girlfriend!

2. On your way up to the 5th floor, various criminals will block your way. Defeat the criminals by using your Kung-Fu techniques.

3. Masters at various martial arts appear at the end of each floor. You cannot go upstairs unless you defeat them. Remaining energy of the masters is indicated by the energy gauge.

4. Press "PUNCH" button to punch, press "KICK" button to kick.

5. Jiggle the joystick quickly to shake off enemy holds.

6. The game will be over if either your energy or your allotted time runs out.

7. At the end of the 4th floor, may wizards will appear. You must guess which one is the real wizard and defeat him.

OPTION SWITCH SETTINGS

DIP SWITCH #1

OPTION \ SWITCH		1	2	3	4	5	6	7	8
DIFFICULTY	EASY	OFF							
	DIFFICULT	ON							
DECREASE OF ENERGY	SLOW		OFF						
	FAST		ON						
NUMBER OF FIGHTERS	2			ON	OFF				
	3			OFF	OFF				
	4			OFF	ON				
	5			ON	ON				
COIN SELLECTION (SWITCH #3 of DIP SWITCH #2 MUST BE OFF)	1 COIN 1 PLAY					OFF	OFF	OFF	OFF
	2 COINS 1 PLAY					ON	OFF	OFF	OFF
	3 COINS 1 PLAY					OFF	ON	OFF	OFF
	4 COINS 1 PLAY					ON	ON	OFF	OFF
	5 COINS 1 PLAY					OFF	OFF	ON	OFF
	6 COINS 1 PLAY					ON	OFF	ON	OFF
	1 COIN 2 PLAYS					OFF	OFF	OFF	ON
	1 COIN 3 PLAYS					ON	OFF	OFF	ON
	1 COIN 4 PLAYS					OFF	ON	OFF	ON
	1 COIN 5 PLAYS					ON	ON	OFF	ON
	1 COIN 6 PLAYS					OFF	OFF	ON	ON
	FREE PLAY					ON	ON	ON	ON

DIP SWITCH #2

OPTION \ SWITCH		1	2	3	4	5	6	7	8
FLIP PICTURE?	NO	OFF		ALWAYS KEEP OFF	ALWAYS KEEP OFF		ALWAYS KEEP OFF		
	YES	ON							
CABINET TYPE	COCKTAIL TABLE		OFF						
	UPRIGHT		ON						
* FREEZE PICTURE?	NO					OFF			
	YES					ON			
NO DEATH MODE?	NO							OFF	
	YES							ON	
TEST MODE?	NO								OFF
	YES								ON

NOTE: * PRESS 2-PLAYER START BUTTON TO FREEZE PICTURE. PRESS 1-PLAYER START BUTTON TO LET IT MOVE AGAIN.

POWER SUPPLY:

+5 volts dc at 5 A (max)

+12 volts dc at 1.5 A (max)

ENVIRONMENT:

Operating temperature range: 0 to 50°C

Relative Humidity: 20 to 70%

MONITOR INTERFACE:

Video Signals: TTL Positive

Sync Signals: TTL Negative (Composite Sync)

Horizontal Frequency: 16 KHz

Vertical Frequency: 56.3 Hz

CAUTION! PCB PIN NUMBERS DIFFER FROM EDGE CONNECTOR PIN NUMBERS

44 PIN EDGE CONNECTOR

SIGNAL ASSIGNMENTS

SIGNAL NAME	EDGE CONNECTOR PIN No.		SIGNAL NAME
GROUND (PCB PIN 1)	22	Z	GROUND (PCB PIN 2)
GROUND (PCB PIN 3)	21	Y	GROUND (PCB PIN 4)
	20	X	
COIN COUNTER A	19	W	
1 P LEFT (PCB PIN 9)	18	V	2 P LEFT (PCB PIN 10)
1 P RIGHT (PCB PIN 11)	17	U	2 P RIGHT (PCB PIN 12)
1 P KICK (PCB PIN 13)	16	T	2 P KICK (PCB PIN 14)
2 P START (PCB PIN 15)	15	S	1 P START (PCB PIN 16)
	14	R	COIN COUNTER B (PCB PIN 18)
COIN B (PCB PIN 19)	13	P	COMPOSIT SYNC (PCB PIN 20)
+ 12 VOLTS (PCB PIN 21)	12	N	+ 12 VOLTS (PCB PIN 22)
+ 12 VOLTS (PCB PIN 23)	11	M	+ 12 VOLTS (PCB PIN 24)
SPEAKER (-)(PCB PIN 25)	10	L	SPEAKER (+) (PCB PIN 26)
1 P PUNCH (PCB PIN 27)	9	K	2 P PUNCH (PCB PIN 28)
RED (PCB PIN 29)	8	J	GREEN (PCB PIN 30)
BLUE (PCB PIN 31)	7	H	
2 P UP (PCB PIN 33)	6	F	2 P DOWN (PCB PIN 34)
1 P UP (PCB PIN 35)	5	E	1 P DOWN (PCB PIN 36)
SERVICE SWITCH	4	D	COIN A (PCB PIN 38)
+ 5 VOLTS (PCB PIN 39)	3	C	+ 5 VOLTS (PCB PIN 40)
+ 5 VOLTS (PCB PIN 41)	2	B	+ 5 VOLTS (PCB PIN 42)
GROUND (PCB PIN 43)	1	A	GROUND (PCB PIN 44)

NOTE: 2 P controls for UP, DOWN, LEFT, RIGHT, KICK & PUNCH are for Cocktail Table games only.

CAUTION! PCB PIN NUMBERS DIFFER FROM EDGE CONNECTOR PIN NUMBERS

DIAGNOSTIC MODE TESTS

The diagnostic program is activated by turning switch 8 of Dip Switch 2 to the ON position and turning the power switch ON. This diagnostic program is composed of 8 independent tests, the first two (RAM test and ROM test) of which initiate automatically as the power switch is turned ON. After these two tests end, the TV monitor displays a list of the next six tests as described below:

01 DIP SWITCH
02 I-O PORT
03 SOUNDS
04 CHARACTER
05 COLOR
06 CROSS HATCH PATTERN

Move the joystick to position the cursor at the desired test and then press the 1-Player button to start the test.

To return to the test list:
Press the 2-Player button (except when 02 I-O PORT test ends). As the 02 I-O PORT test ends, move the joystick left (the 1-Player joystick for table type games) while pressing the 2-player button.
When all the necessary testing is completed, turn the power switch OFF and turn switch 8 of Dip Switch 2 to the OFF position.

1. RAM TEST

If RAM is OK, "RAM OK" appears on the TV monitor.

If RAM is faulty: "RAM NG XXXX YY ZZ"
(Faulty RAM address)(RAM input data)(RAM output data)
appears on the TV Monitor.
Press the 1-Player button to continue RAM TEST, or
Press the 2-Player button to end this test and advance to ROM TEST.

2. ROM TEST

If ROMs are OK the following appears on the TV Monitor:

RAM OK
ROM 0 OK
ROM 1 OK
ROM 2 OK
ROM 3 OK

If any of the ROMs are faulty, for instance ROM 1, the following appears on the TV Monitor:

RAM OK
ROM 0 OK
ROM 1 NG
ROM 2 OK
ROM 3 OK

3. DIP SWITCH TEST While the TV monitor displays the test list, control the joystick to position the cursor at 01 and press the 1-Player button.

This test shows the state of the switches of Dip Switch 1 and 2 and the results of game adjustments.

```
Dip Sw    1  2  3  4  5  6  7  8
 DSW 1    0  0  0  0  0  0  0  0     1=ON
 DSW 2    0  0  0  0  0  0  0  1     0=OFF

 COIN MODE A        1 COIN  1 PLAY
 COIN MODE B        1 COIN  2 PLAYS

 BODY TYPE          UPRIGHT
 DIFFICULTY         EASY
 DECREASE           SLOW
 FIGHTERS           3
```

4. I-O PORT TEST When the TV Monitor displays the test list, control the joystick to position the cursor at 02 and pres the 1-Player button.

This test checks if all the switches on the Control Panel and Coin Doors are working correctly. The following display appears.

```
INTERFACE 1      1  2  3  4  5  6  7  8
 READ DATA       0  0  0  0  0  0  0  0

INTERFACE 2      1  2  3  4  5  6  7  8
 READ DATA       0  0  0  0  0  0  0  0

INTERFACE 3      1  2  3  4  5  6  7  8          1 = ON
 READ DATA       0  0  0  0  0  0  0  0          0 = OFF

TIMING  n  n  n  n
  * TIMING starts a 0000 and adds one count approximately every second.

INTERFACE 1-1 ... 1-Player Start Button
          1-2 ... 2-Player Start Button
          1-3 ... Service Switch
          1.4 ... Coin Switch A
INTERFACE 2-1 ... 1P Joystick RIGHT
          2-2 ... 1P Joystick LEFT
          2-3 ... 1P Joystick DOWN
          2-4 ... 1P Joystick UP
          2-6 ... 1P PUNCH button
          2-8 ... 1P KICK button
INTERFACE 3-1 ... 2P Joystick RIGHT
          3-2 ... 2P Joystick LEFT
          3-3 ... 2P Joystick DOWN
          3-4 ... 2P Joystick UP
          3-5 ... Coin Switch B
          3-6 ... 2P PUNCH button
          3-8 ... 2P KICK button
```

To terminate this test and bring the test list back to the TV monitor, move the joystick LEFT while depressing the 2-Player button.

5. SOUND TEST When the TV Monitor displays the test list, control the joystick to position the cursor at 03 and press the 1-Player button.

A table of sounds appears on the TV Monitor.

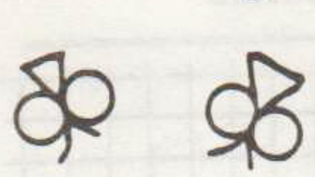
SOUNDS

01 YELL OF PLAYER (JUMP-KICKS)
CREDIT ADDING SOUND
02 YELL OF PLAYER (PUNCHES, KICKS)
03 GROAN OF PLAYER OR ENEMY
04 LAUGHING VOICE OF ENEMIES-1
05 LAUGHING VOICE OF ENEMIES-2
06 BURSTING OF PAPER BALL
BURSTING OF DRAGON'S EGG
07 SHRIEK OF PLAYER
08 PLAYER RUNNING
09 HITTING SOUND (PUNCHES, KICKS)
10 SWISHING SOUND
11 BURSTING OF SNAKE POT
12 BITING SOUND
13 SOUND OF KNIVES, BOOMERANGS
14 COUNTING POINTS
15 GAME START
16 BGM
17 COMPLETION OF EACH PATTERN
18 COMPLETION OF GAME
19 GAME OVER
20 TIME UP WARNING
21 ADDITIONAL FIGHTER
MUSIC END

Select a sound by positioning the cursor with the joystick. Depressing the 1-Player button repeats the sound.

6. CHARACTER TEST When the TV Monitor displays the test list, control the joystick to position the cursor at 04 and press the 1-Player button.

The TV Monitor displays four moths which are flipped vertically and horizontally as shown below.



Moving the joystick to the left will display 4 characters:

1. Kung-Fu Master
2. Knife Thrower
3. Man of Brute Force
4. Boss of Organization X

7. COLOR TEST While the TV Monitor displays the test list, control the Joystick to position the cursor at 05 and press the 1-Player button.

This test is comprised of five independent checks. Pressing the 1-Player button brings the check to the TV Monitor.

(1) A row of letters A through Z appears along with a row of numbers 0 through 9 as shown below.

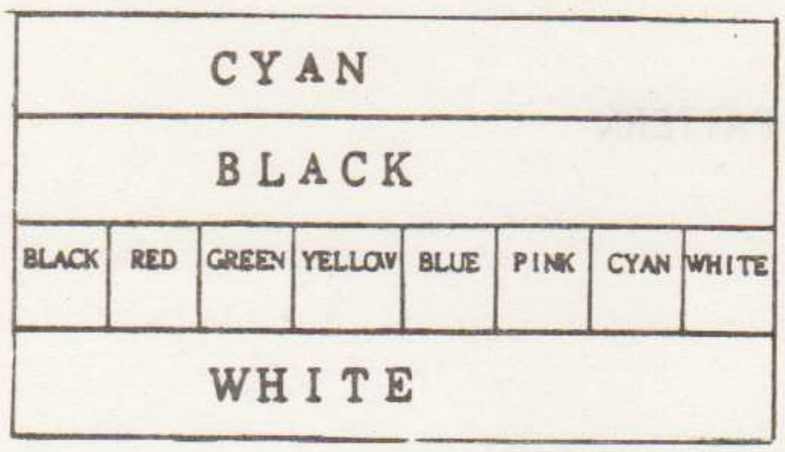
ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789

(2) Press the 2-Player button and a BLUE FIELD is displayed.

(3) Press the 2-Player button and a RED FIELD is displayed.

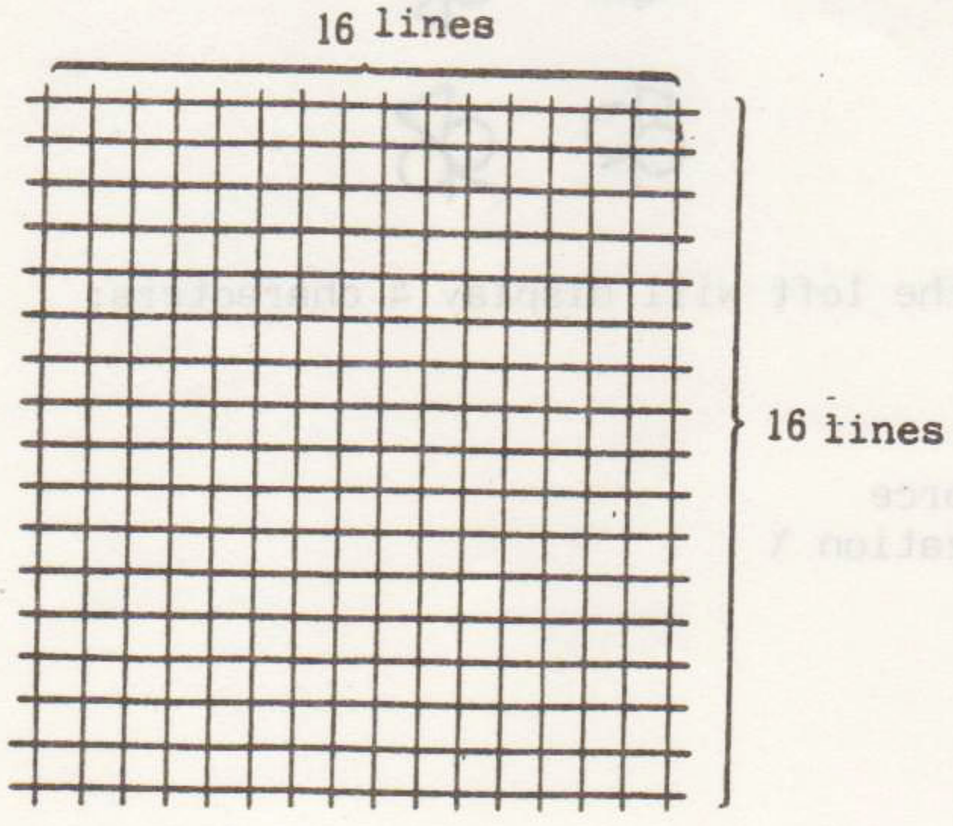
(4) Press the 2-Player button and a GREEN FIELD is displayed.

(5) Press the 2-Player button and a color Test Pattern is displayed as shown below.

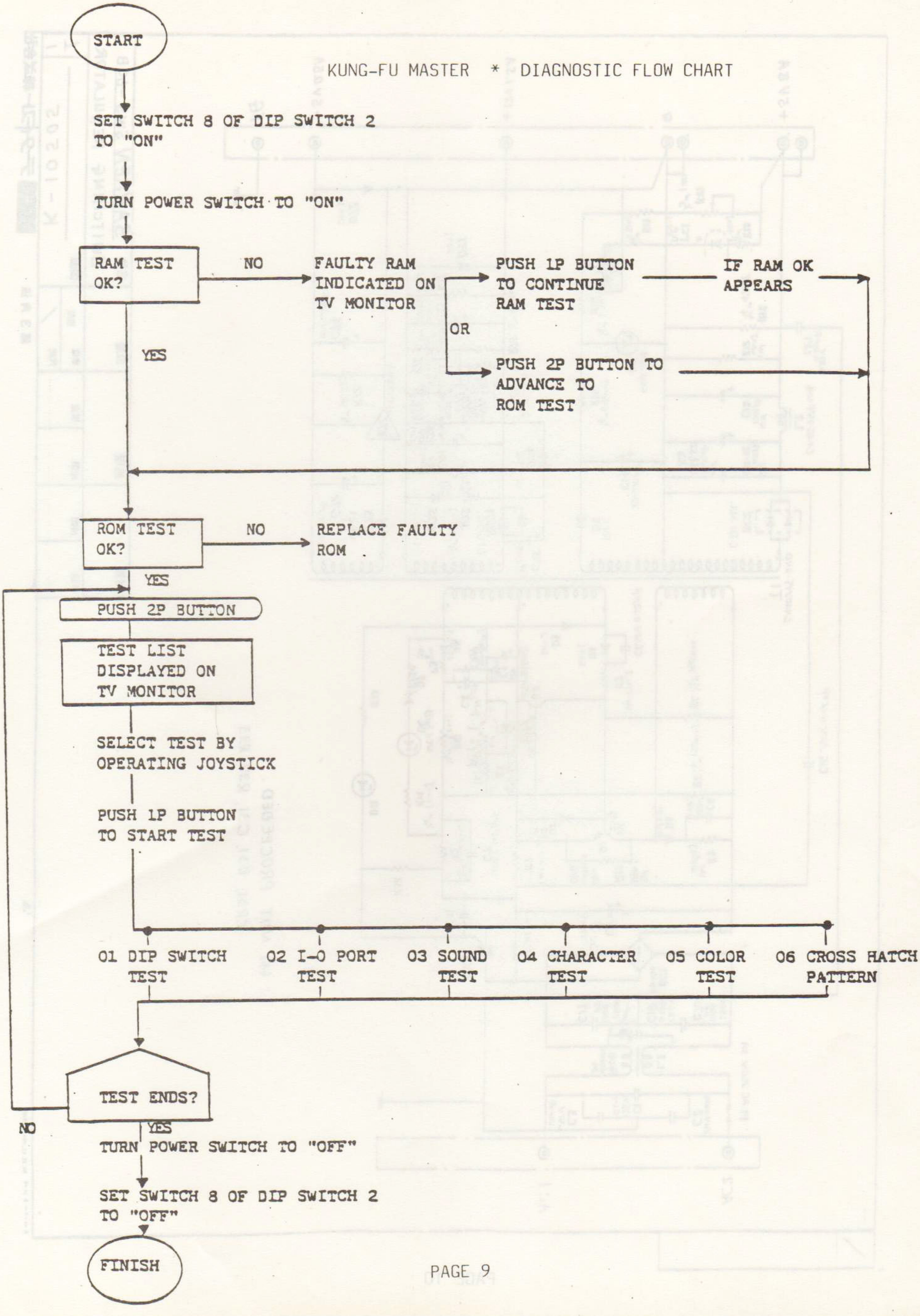


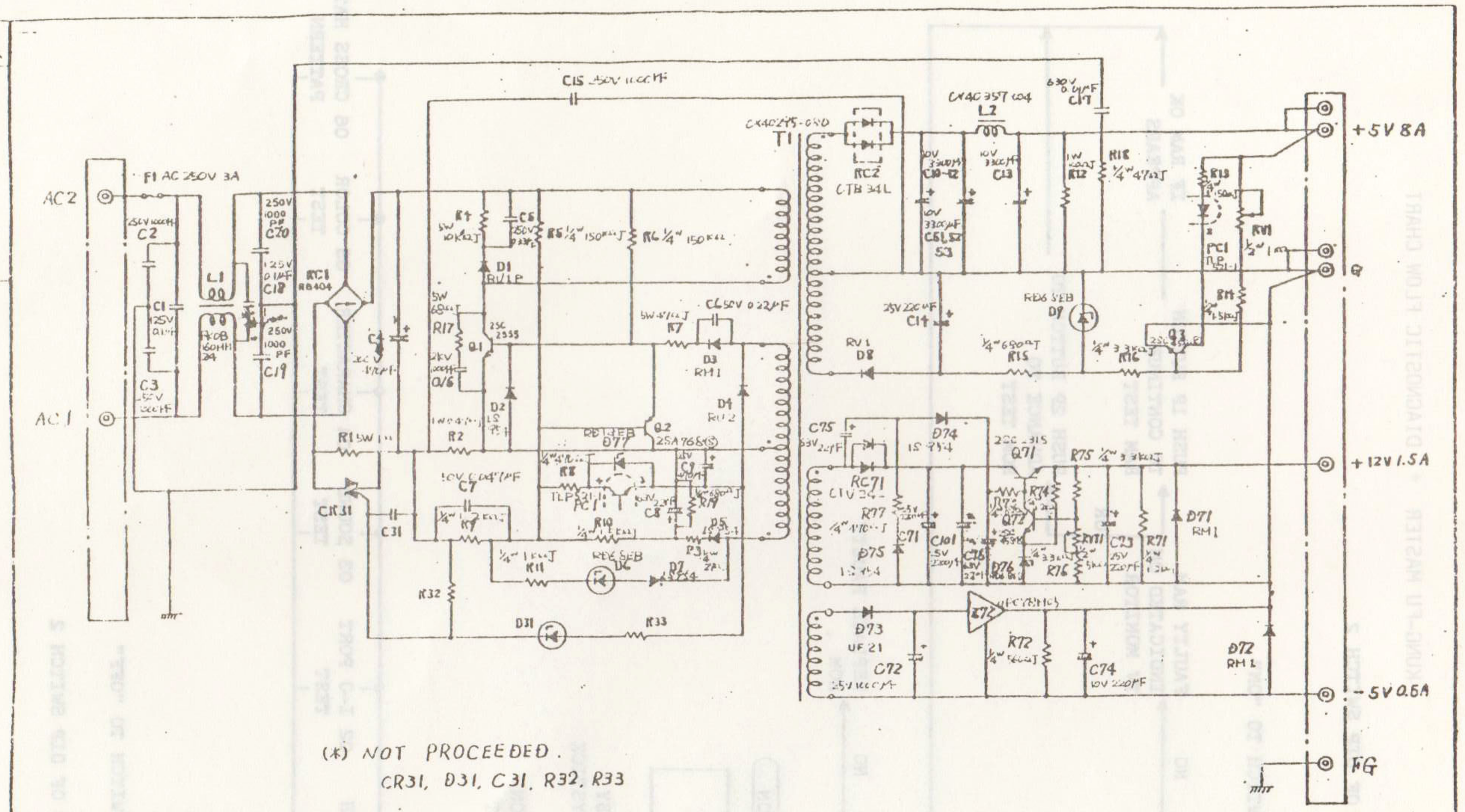
8. CROSS HATCH PATTERN TEST While the TV monitor displayes the test list, control the joystick to position the cursor at 06 and press the 1-Player button.

A Cross Hatch Pattern is displayed as shown below.



KUNG-FU MASTER * DIAGNOSTIC FLOW CHART

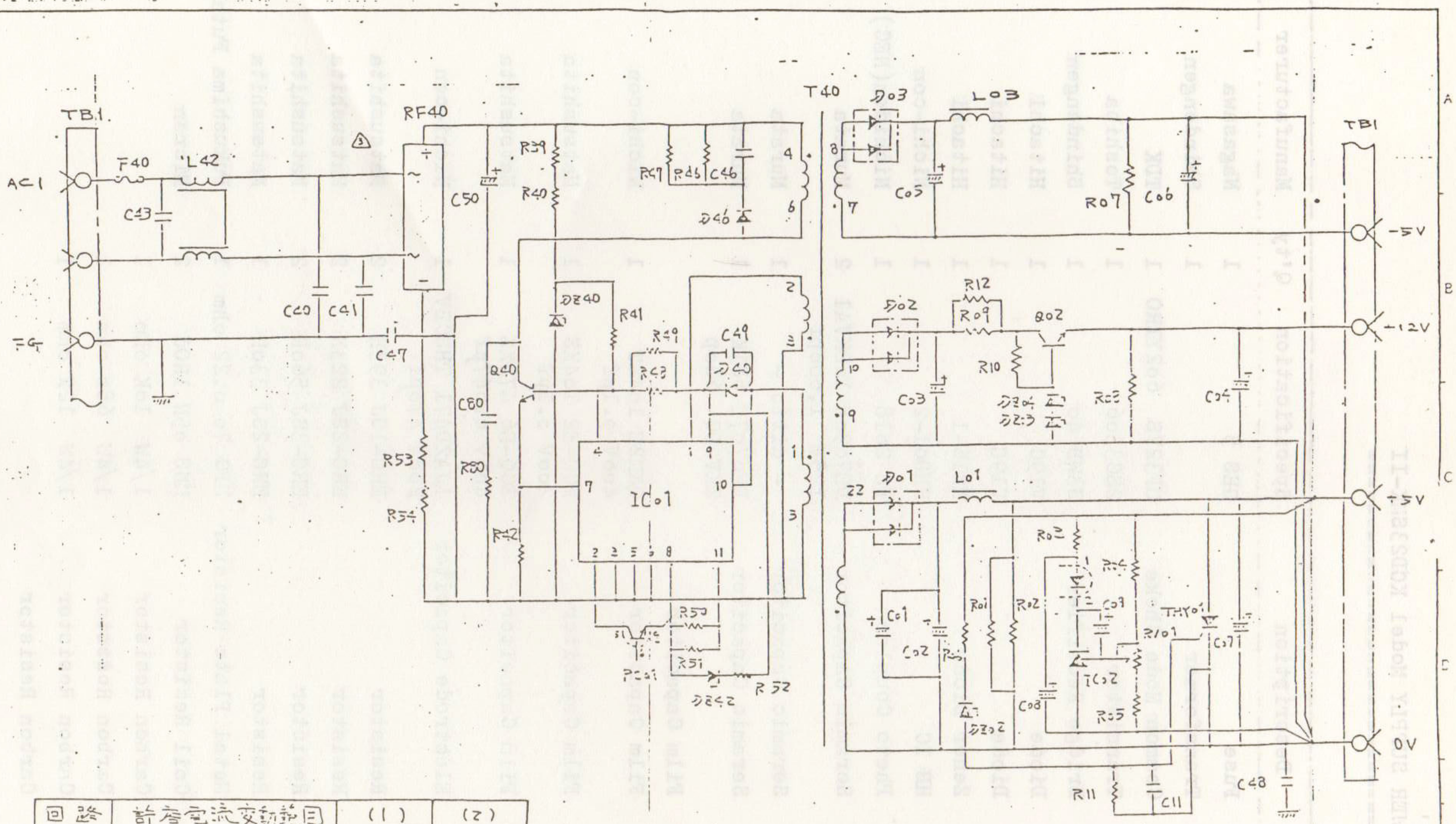




(*) NOT PROCEEDED.
CR31, D31, C31, R32, R33

材質		処理		公差	名称 SANKEN SWS-60B SWITCHING REGULATOR
承認	検図	検図	担当	単位 mm	図面 K-10505
				尺度 /	1/1

第3角法 デタイスト株式会社



回路	許容電流変動範囲	(1)	(2)
+5V	1A ～ 7A	7A	6A
+12V	0.2A ～ 1.5A	1.0A	1.5A
-5V	0.2A ～ 0.5A	0.5A	0.5A

但し出力容量はTotalで50W

C49は実装されません.

: DV電 SW. REGULATOR KAGA

NO.	DATE	DESCRIPTION	APPD.	CHKD.	DESD.
2	58.11	C42 追加			
1					

DATE 年月日 | UNIT mm | SCALE / | TITLE KGD23S MKII-3ch 回路図

SHINDENGEN ELECTRIC MFG.CO.,LTD. 新電元工業株式会社 JAPAN

DWG.NO. MH-330066 SHEET 1F

MATL.

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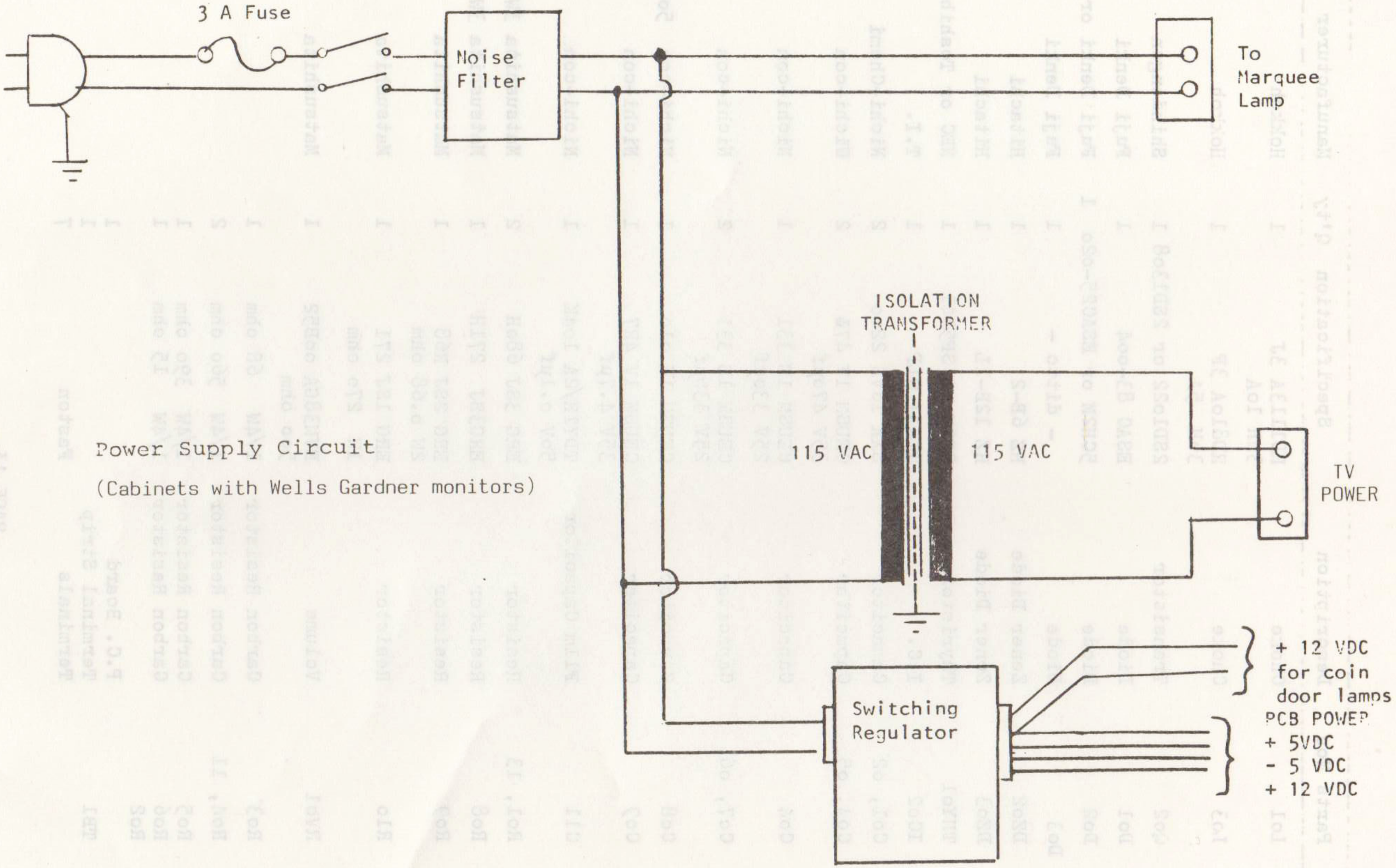
POWER SUPPLY Model KGD23SMK-II

Item	Parts Nos	Description	Specification	Q'ty	Manufacturer
1.	F4o	Fuse	GHS 5	1	Nagasawa
2.	T4o	Transformer		1	Shindengen
3.	L42	Common Mode Choke	UF327S 6o2YIRO	1	TDK
4.	Q4o	Transistor	2SC33o6	1	Toshiba
5.	RF4o	Bridge Rectifier	S3WB 4o	1	Shindengen
6.	D4o	Diode	V19C	1	Hitachi
7.	D46	Diode	V19G	1	Hitachi
8.	DZ4o	Zener Diode	HZ16-1	1	Hitachi
9.	ICo1	HB IC	RHDo1-2	1	Nichi-con
1o.	PCo1	Photo Coupler	PS 2o18	1	Nichiden(NEC)
11.	C4o, 41	Seramic Capacitor	DE7o9oB 1o2KVA1 125V 1,oopf	2	Murata
12.	C47	Seramic Capacitor	- ditto -	1	Murata
13.	C8o	Seramic Capacitor	DEo7o7B 681K 2KV DC 68op	1	Murata
14.	C42	Film Capacitor			
15	C43	Film Capacitor	QXM2G 1o4KT 4ooV o.1µf	1	Nichi-con
16.	C46	Film Capacitor	ECQ-E2 1o4KS 2ooV o.1µf	1	Matsushita
17.	C48	Film Capacitor	ECQ-E6 473KZ 4ooV o.o47µf	1	Matsushita
18.	C5o	Electrode Capacitor	LJA2D471 THSCBV 2ooV 47opf	1	Nichi-con
19.	R37, 4o	Resistor	ERG-1SJ 393H	2	Matsushita
2o.	R47, 46	Resistor	ERG-2SJ 223H	2	Matsushita
21.	R48, 49	Resistor	ERG-3SJ 56oH	2	Matsushita
22.	R8o	Resistor	ERG-2SJ 33oH	1	Matsushita
23.	R42	Metal Plate Resistor	MPC 7o o.22 ohm	1	Fukushima Futaba
24.	R53, 54	Coil Resistor	IENS o5N 1ROJ	2	Micron
25.	R41	Carbon Resistor	1/4W 1oK ohm	1	
26.	R5o	Carbon Resistor	1/4W 68o ohm	1	
27.	R51	Carbon Resistor	1/4W 12K ohm	1	
28.	R52	Carbon Resistor			

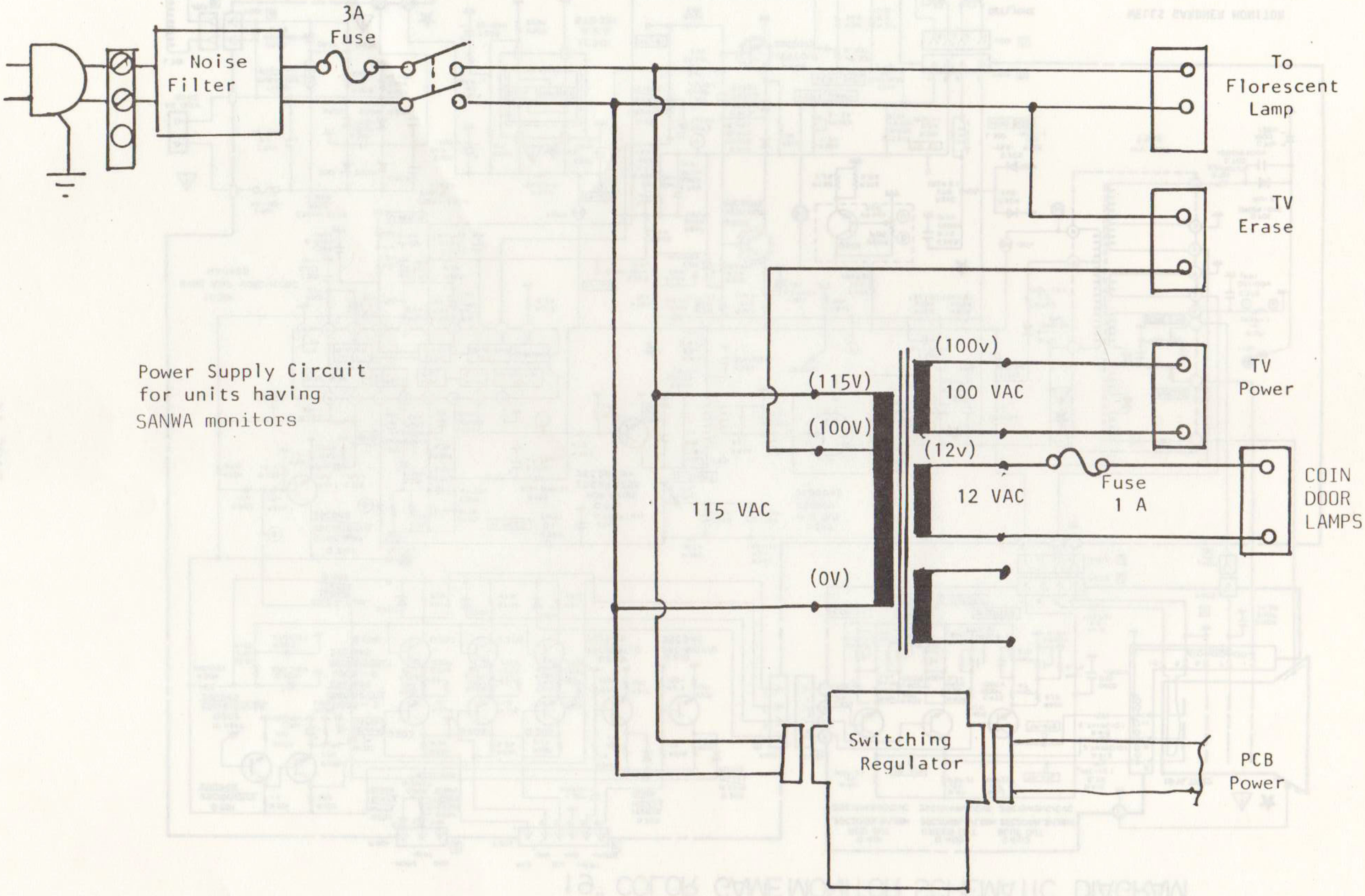
Item	Parts Nos	Description	Specification	Q'ty	Manufacturer
29.	Lo1	Choke	RD1113A 3J 3uH 1oA	1	Hokkoh
3o.	Lo3	Choke	RD31oA 3F 3uH 5A	1	Hokkoh
31.	Qo2	Transistor	2SD1o22 or 2SD13o8	1	Shindengen
32.	Do1	Diode	ESAC 83-oo4	1	Fuji Denki
33.	Do2	Diode	5CH2M or ESAC25-o2o	1	Fuji Denki or NEC
34.	Do3	Diode	- ditto -	1	Fuji Denki
35.	DZo2	Zener Diode	HZ 6B-2	1	Hitachi
36.	DZo3	Zener Diode	HZ 12B-1L	1	Hitachi
37	THYo1	Thyristor	5PIM or SF5B41	1	NEC or Toshiba
38.	ICo2	I.C.	TL431 CLP	1	T.I.
39.	Co1, o2	Capacitor	SXA 16VB 22oo	2	Nichi-Chemi
4o.	Co3, o5	Capacitor	CEUSM 1V 47o 35V 47oµf	2	Nichi-con
41	Co4	Capacitor	CEUSM 1E 331 25V 33oµf	1	Nichi-con
42.	Co7, o6	Capacitor	CEUSM 1E 331 25V 33oµf	2	Nichi-con
43.	Co8	Capacitor	CEUSM 1H olo	1	Nichi-con 5oV 1µf
44.	Co9	Capacitor	CEUSM 1V 4R7 35V 4.7µf	1	Nichi-con
45.	C11	Film Capacitor	TDY1H/2A 1o4K 5oV o.1µf	1	Nichi-con
46.	Ro1, 13	Resistor	ERG 3SJ 68oH	2	Matsushita 3W 68Ω
47.	Ro8	Resistor	ERG3SJ 271H	1	Matsushita 3W 27oΩ
48.	Ro9	Resistor	ERG 2SJ R68 2W o.68 ohm	1	Matsushita
49.	R1o	Resistor	ERG 1SJ 271 1W 27o ohm	1	Matsushita
5o.	RVo1	Volume	EVM38GA ooB52 5oo ohm	1	Matsushita
51.	Ro3	Carbon Resistor	1/4W 68 ohm	1	
52.	Ro4, 11	Carbon Resistor	1/4W 56o ohm	2	
53.	Ro5	Carbon Resistor	1/4W 39o ohm	1	
54.	Ro6	Carbon Resistor	1/4W 15 ohm	1	
55.	Ro2				
56.		P.C. Board		1	
57.	TB1	Terminal Strip		1	
58.		Terminals	Faston	7	

Power Supply Circuit

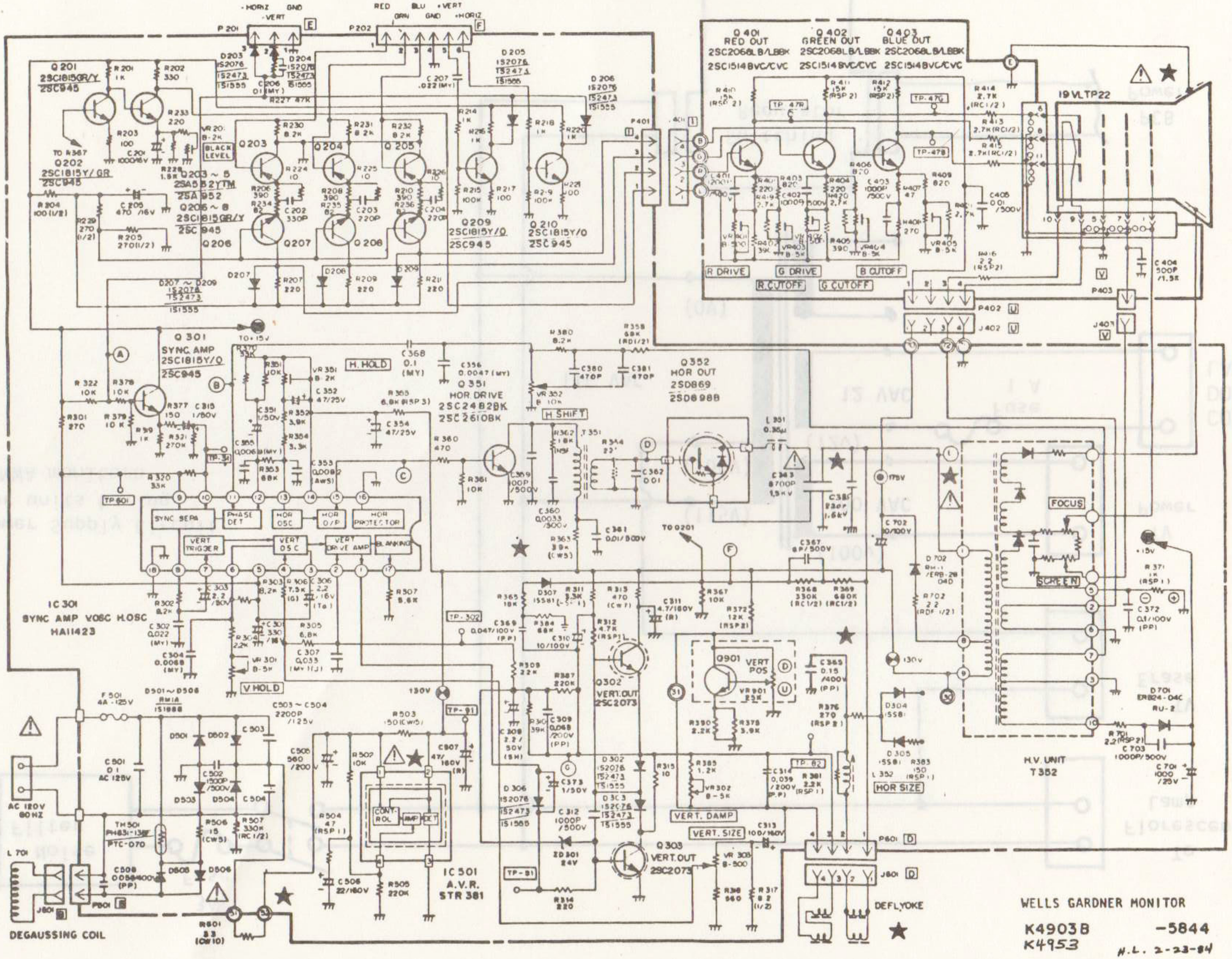
(Cabinets with Wells Gardner monitors)



Power Supply Circuit
for units having
SANWA monitors

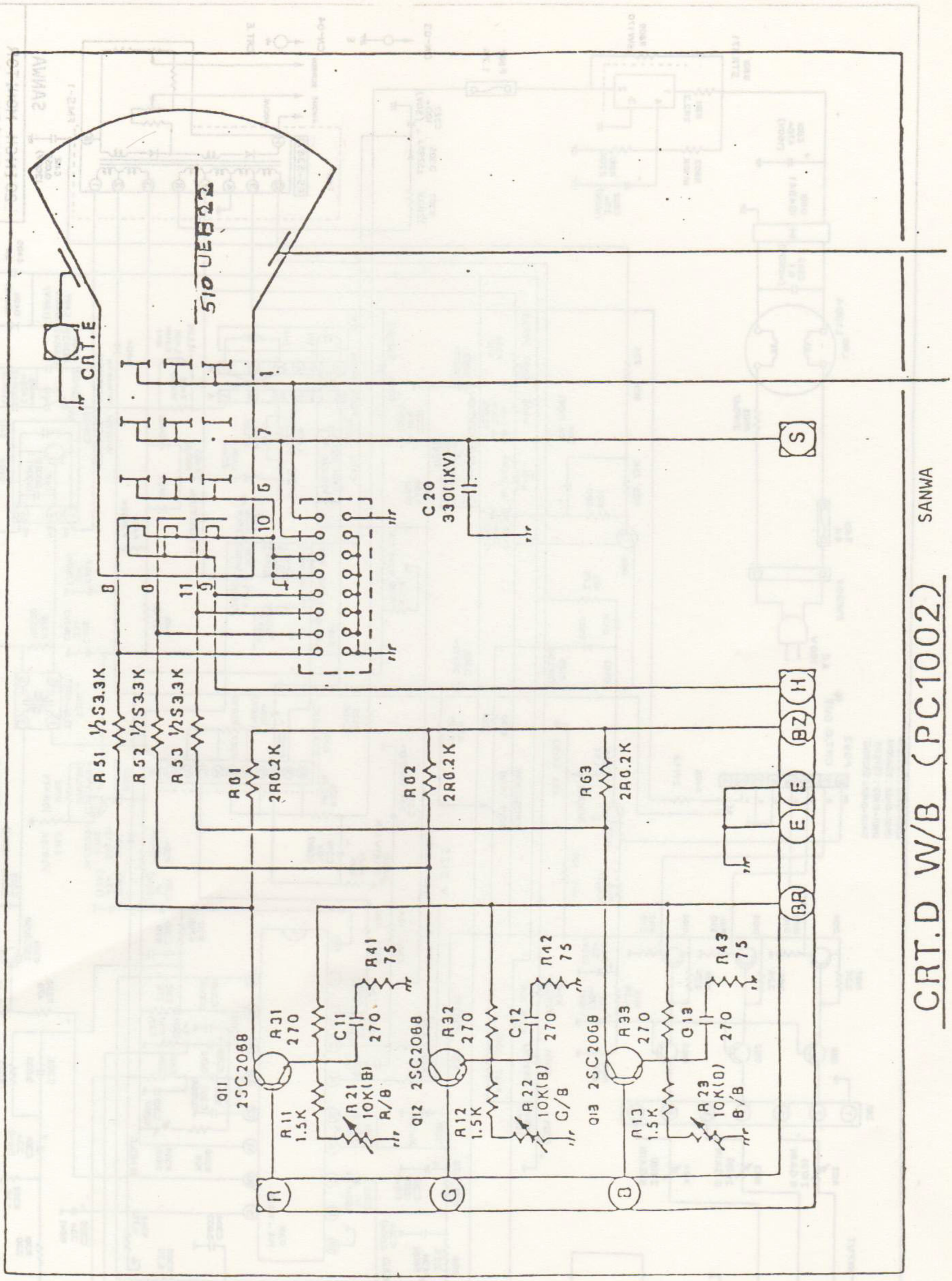


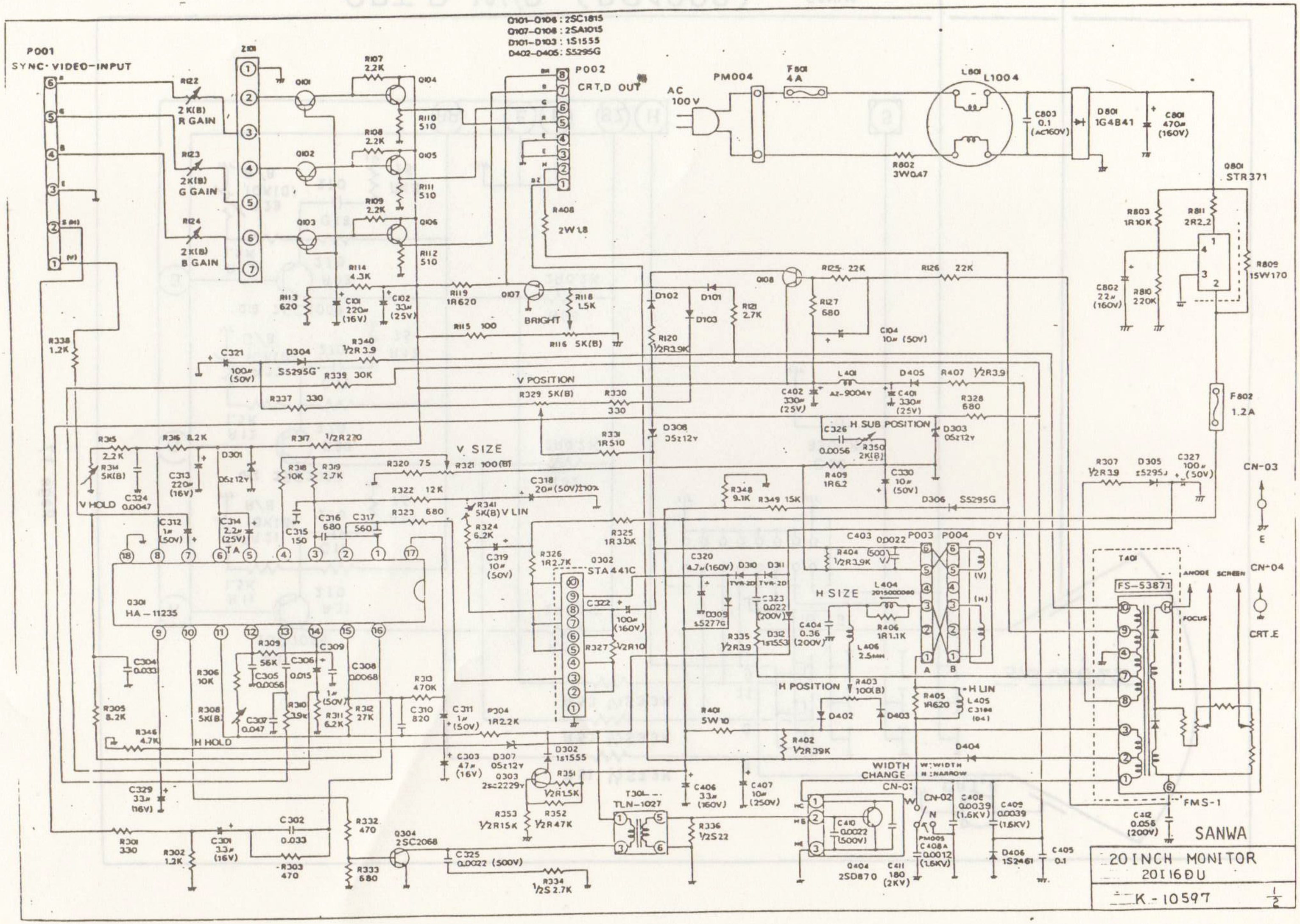
19" COLOR GAME MONITOR SCHEMATIC DIAGRAM

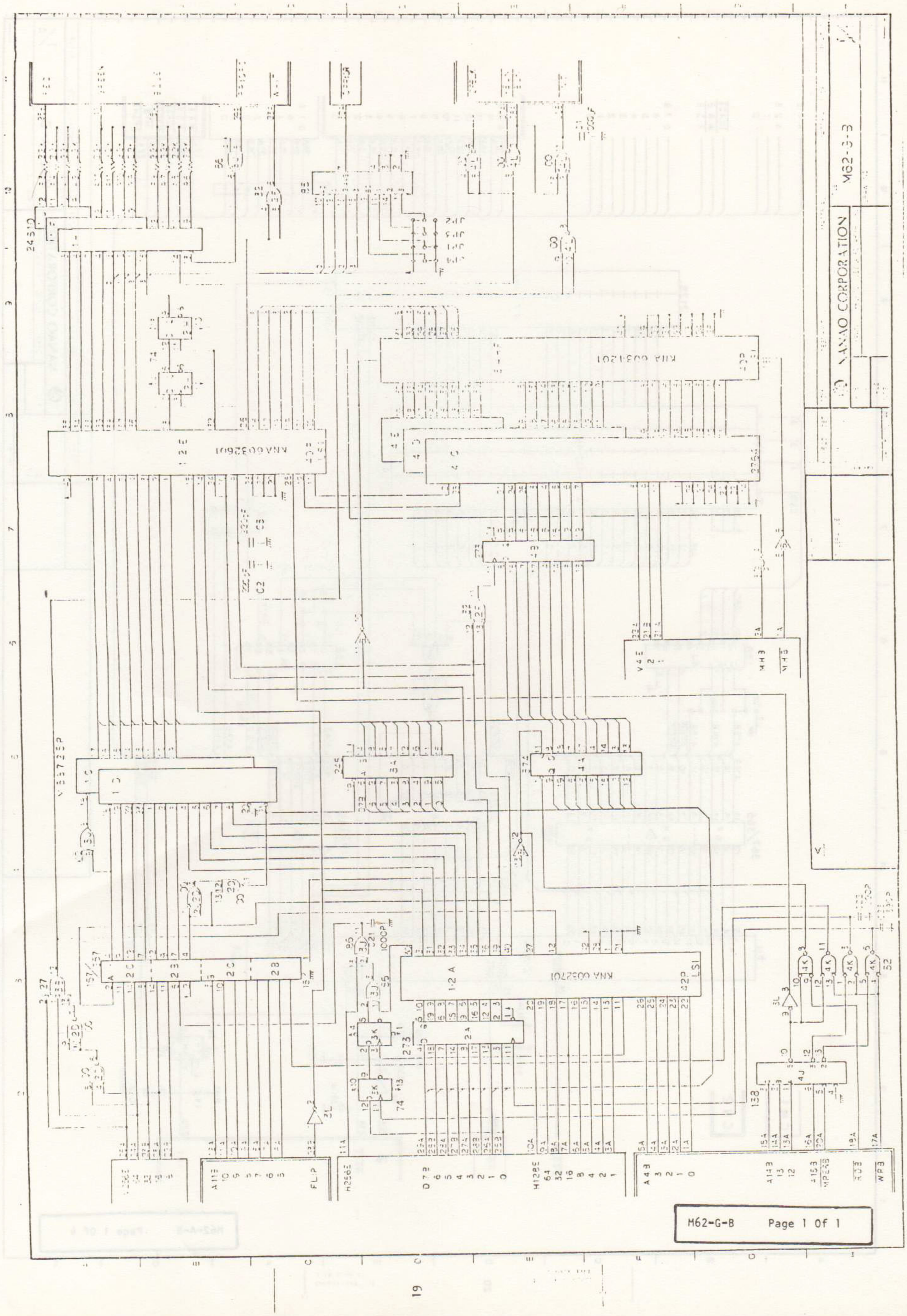


C.R.T. W/B (PC1002)

SANWA




D101–D106 : 2SC1815
D107–D108 : 2SA1015
D101–D103 : 1S1555
D402–D405 : S5295G
P001
SYNC·VIDEO-INPUT
P002
CRT.D OUT
AC 100V
PM004
F801 4A
L801 L1004
C803 0.1 (AC160V)
D801 1G4B41
C801 470μ (160V)
R802 3W0.47
Q801 STR371
R803 1R10K
R811 2R2.2
R809 15W170
C802 22μ (160V)
R810 220K
R122 2K(B) R GAIN
R123 2K(B) G GAIN
R124 2K(B) B GAIN
R107 2.2K
R108 2.2K
R109 2.2K
R110 510
R111 510
R112 510
R408 2W1.8
R114 4.3K
R113 620
C101 220μ (16V)
C102 33μ (25V)
R119 1R620
Q107
BRIGHT
R118 1.5K
R115 100
R116 5K(B)
R125 22K
R126 22K
Q108
R127 680
C104 10μ (50V)
D102
D101
D103
R121 2.7K
R120 ½R3.9K
R338 1.2K
C321 100μ (50V)
D304 S5295G
R340 ½R3.9
R339 30K
R337 330
V POSITION
R329 5K(B)
R330 330
L401
D405
R407 ½R3.9
C402 330μ (25V)
AZ-9004Y
C401 330μ (25V)
R328 680
R335 R336 R337 1/2R270
R334 8.2K
R336 8.2K
R337 1/2R270
D301 D6z12Y
R338 10K
R339 2.7K
R334 5K(B) V HOLD
C324 0.0047
C313 220μ (16V)
V SIZE
R320 75
R321 100(B)
R322 12K
C318 20μ(50V)±10%
R323 680
R341 5K(B) V LIN
C312 1μ (50V)
C314 2.2μ (25V)
C315 150
C316 680
C317 560
R324 6.2K
C319 10μ (50V)
R325 1R30K
R326 1R2.7K
Q302 STA441C
Q301 HA-11235
R309 56K
C309
C306
C305 0.0056
0.015
C308 0.0068
R306 10K
R308 5K(B)
C307 0.047
R310 3.9K
R311 6.2K
R312 27K
R313 470K
C310 820
C311 1μ (50V)
R304 1R2.2K
C322 100μ (160V)
R327 ½R10
C320 4.7μ(160V)
D310 TVR-20
D311 TVR-20
D309 S2277G
C323 0.022 (200V)
D312 1S1553
R335 ½R3.9
H SIZE
L404
C404 0.36 (200V)
R406 1R1.1K
L406 2.5mH
C403 0.0022
P003 P004 DY
R404 (500) ½R3.9K V
A B
H POSITION
R403 100(B)
D402
D403
R405 1R620
+H LIN
L405
R401 5W10
R402 ½R39K
D404
WIDTH CHANGE
W:WIDTH N:NARROW
CN-01
CN-02
C406 33μ (160V)
C407 10μ (250V)
C408 0.0039 (1.6KV)
C409 0.0039 (1.6KV)
C408A 0.0012 (1.6KV)
PMOOS
D406 1S2461
C405 0.1
C410 0.0022 (500V)
Q404 2SD870
C411 180 (2KV)
R336 ½S22
T401
FS-53871
ANODE
SCREEN
FOCUS
CRT.E
CN-04
CN-03
E
F802 1.2A
C412 0.056 (200V)
FMS-1
SANWA
R307 ½R39
D305 S5295J
C327 100μ (50V)
R348 9.1K
R349 15K
C326 0.0056
H SUB POSITION
R350 2K(B)
R409 1R6.2
C330 10μ (50V)
D303 D6z12Y
D306 S5295G
D308 D5z12Y
R331 1R510
R331 1R5.1K
D307 D5z12Y
Q303 2SC2229Y
D302 1S1555
R351 ½R1.5K
R353 ½R1.5K
R352 ½R47K
T301 TLN-1027
Q304 2SC2068
C325 0.0022 (500V)
R334 ½S2.7K
C302 0.033
R332 470
R303 470
R333 680
R301 330
R302 1.2K
C301 33μ (16V)
C329 33μ (16V)
H HOLD
R346 4.7K
C303 47μ (16V)
20 INCH MONITOR
20I16ĐU
K-10597
1/2


M62-G-B
Page 1 Of 1

CN1

CN2

367/365

Z-80 A

RESET

NMI

R116 1K

R114 1K

22K RAS

R118 330

R115 1K

6K

390p

C123

R117 1K

74

C52 1000p

WAIT

INT

245

138

139

2754

27128

2129

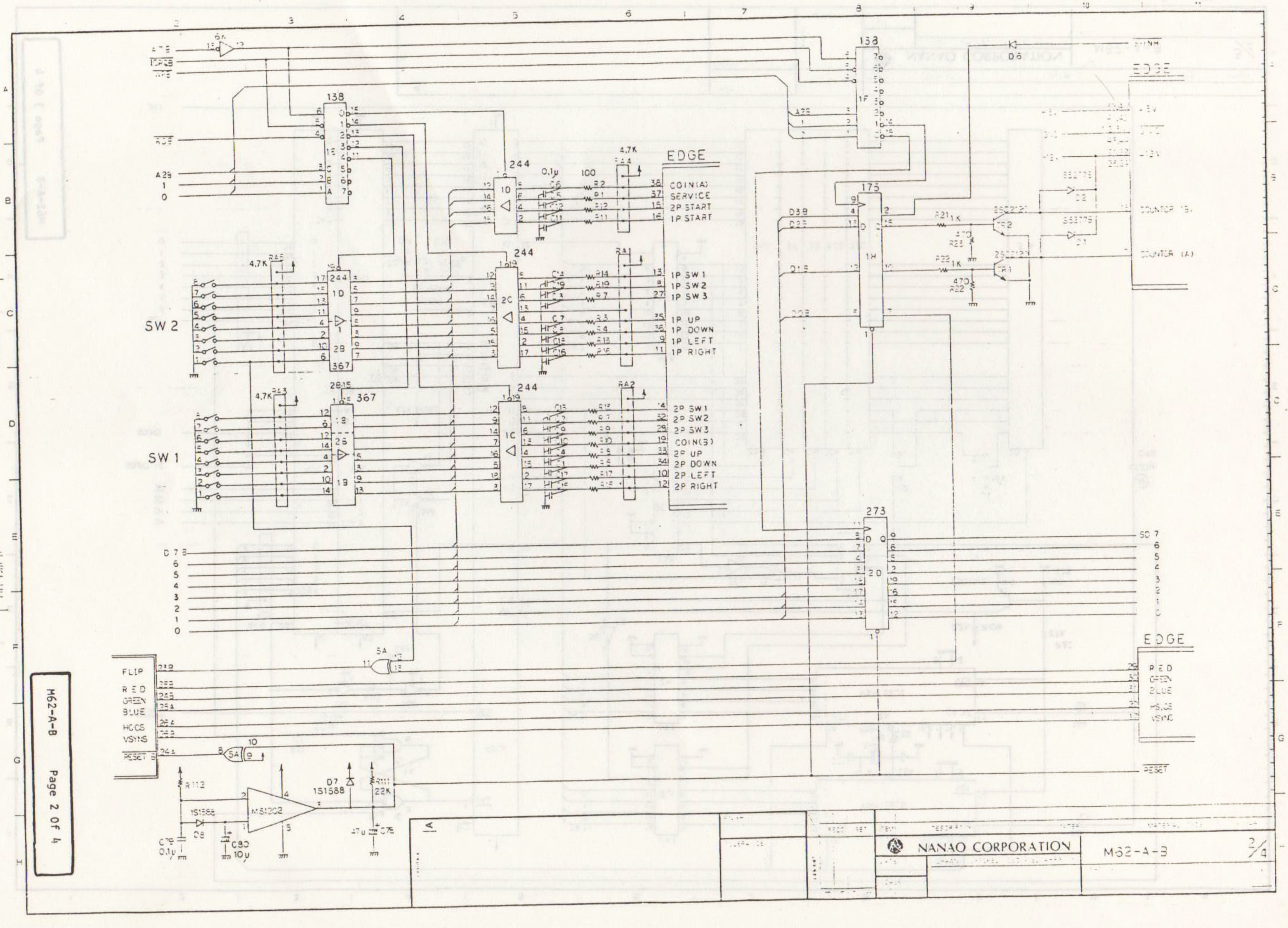
4.7K

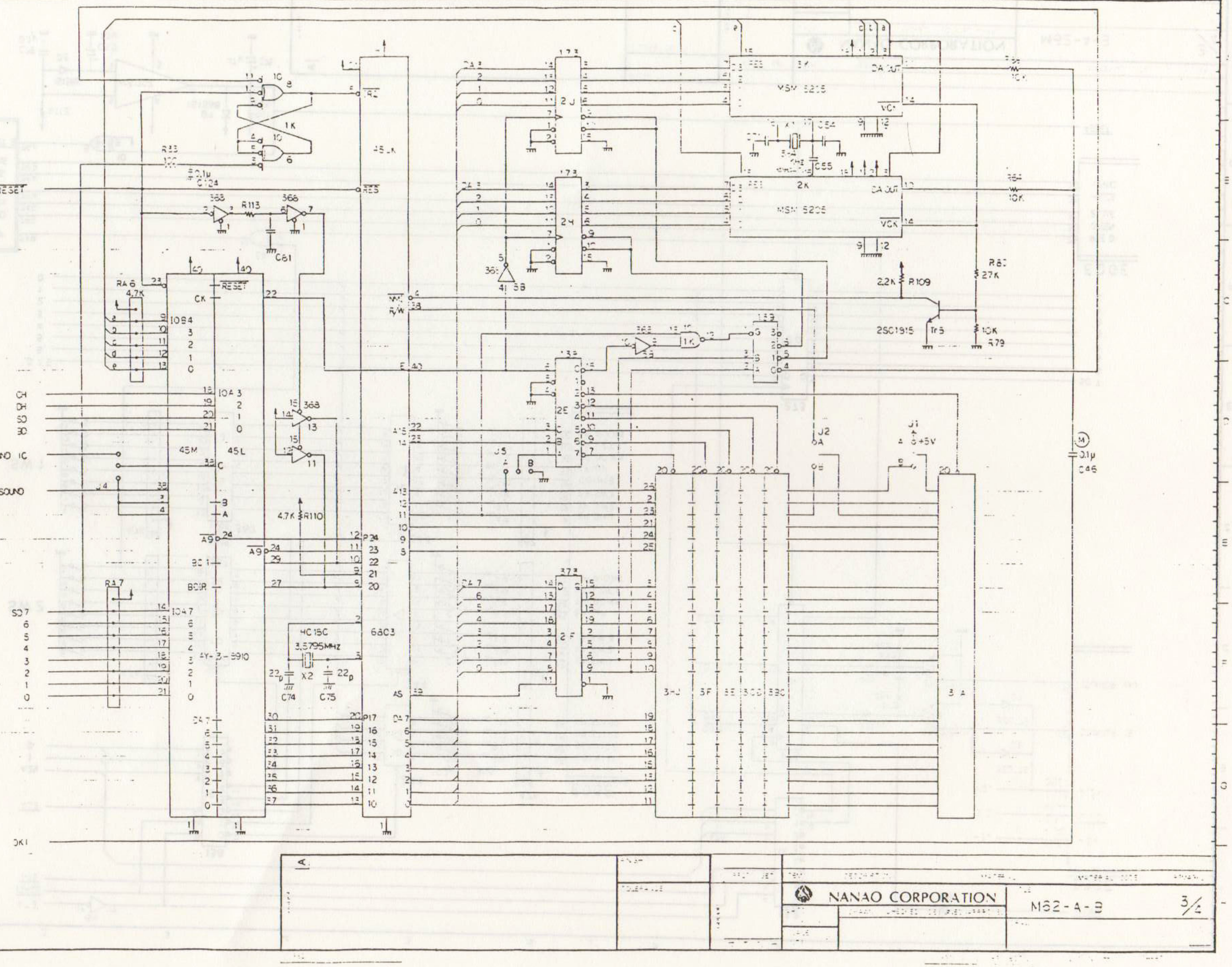
M62-A-B Page 1 of 4

NANAO CORPORATION

M62-A-B

1/4

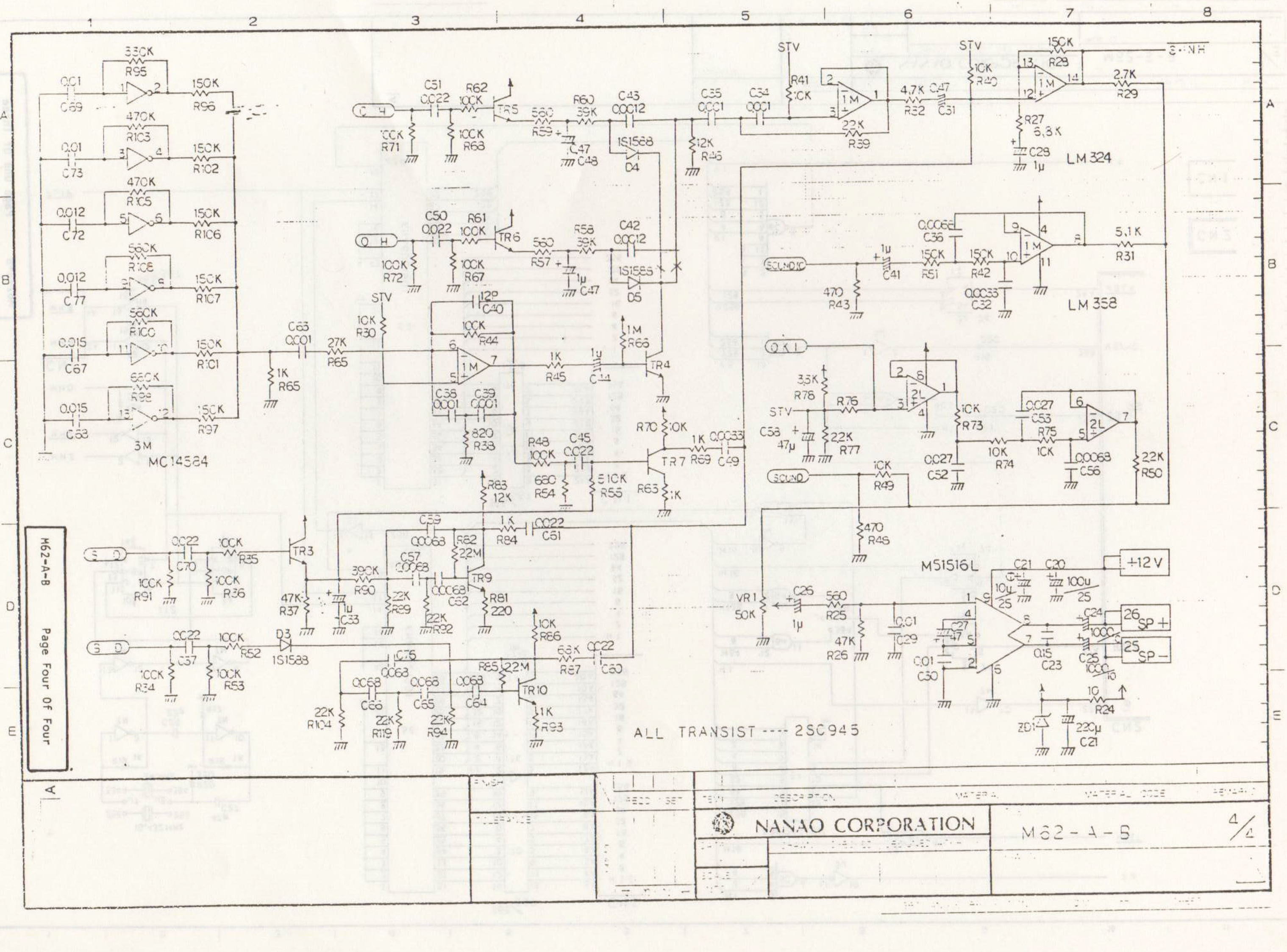

138
244
175
273
367
EDGE
SW 2
SW 1
4.7K
0.1μ
100
1K
470
10μ
22K
1S1588
M51202
COIN(A)
SERVICE
2P START
1P START
1P SW 1
1P SW 2
1P SW 3
1P UP
1P DOWN
1P LEFT
1P RIGHT
2P SW1
2P SW2
2P SW3
COIN(B)
2P UP
2P DOWN
2P LEFT
2P RIGHT
COUNTER (B)
COUNTER (A)
FLIP
RED
GREEN
BLUE
HCOS
VSYNS
RESET
M62-A-B Page 2 Of 4
NANAO CORPORATION
M62-A-B
2/4

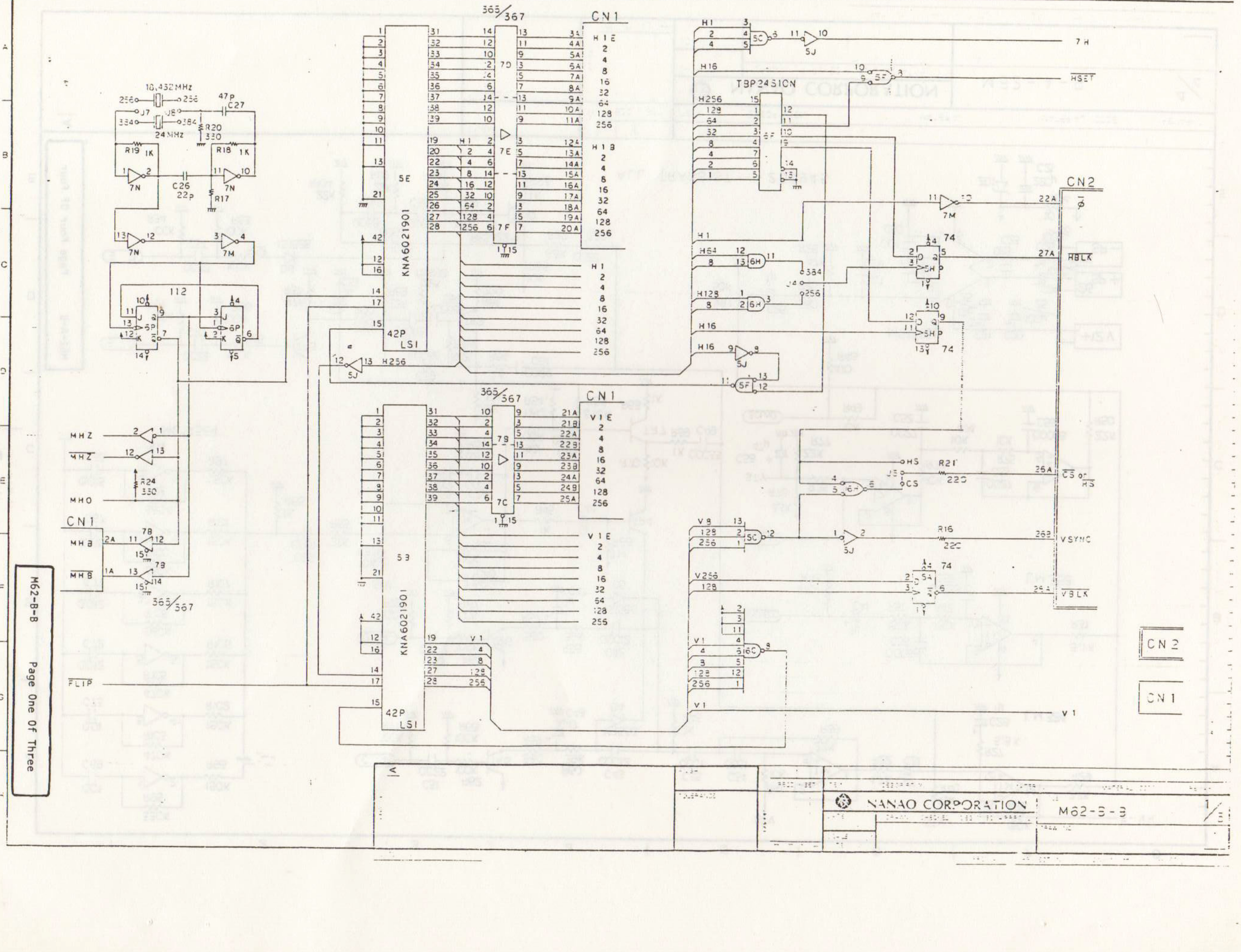


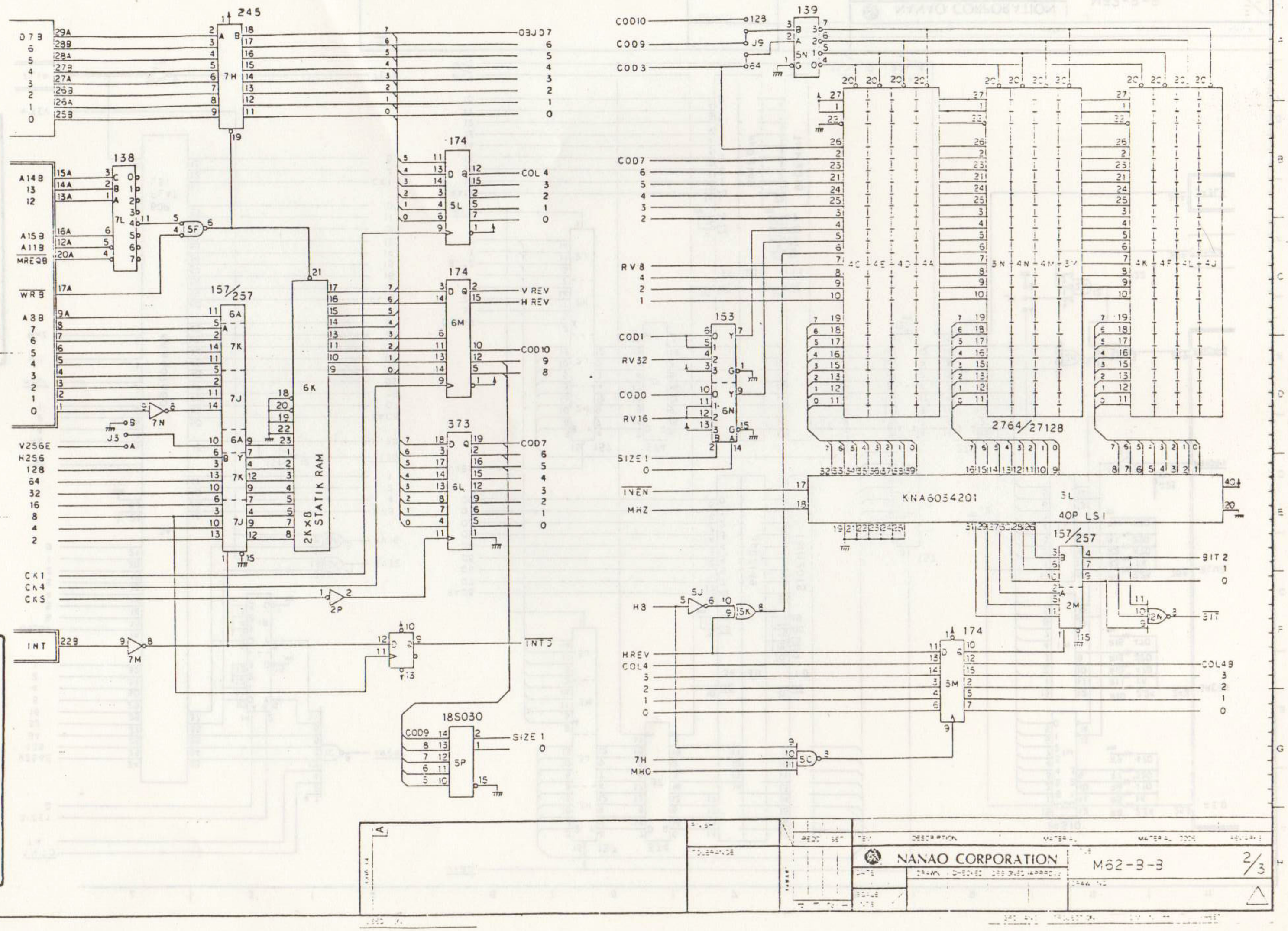
M62-A-B Page 3 OF 4

NANAO CORPORATION

M62-A-B 3/4


M62-A-B Page Four Of Four
MC14584
LM 324
LM 358
M51516L
ALL TRANSIST ---- 2SC945
NANAO CORPORATION
M62-A-B
4/4


365/367
CN1
KNA6021901
5E
42P LSI
7D
7E
7F
H1E
H1B
10.432MHz
24MHz
R19 1K
R18 1K
R20 330
R24 330
C26 22p
C27 47p
7N
7M
112
MHZ
MHZ
MHO
MHB
MHB
78
79
FLIP
H256
TBP24S10N
5C
5J
5F
6H
5H
74
7H
HSET
HBLK
CN2
HS
CS
CS or HS
R21 220
R16 220
VSYNC
VBLK
V1E
5B
42P LSI
7B
7C
V1
V8
M62-B-B Page One Of Three
NANAO CORPORATION
M62-B-B
1/3

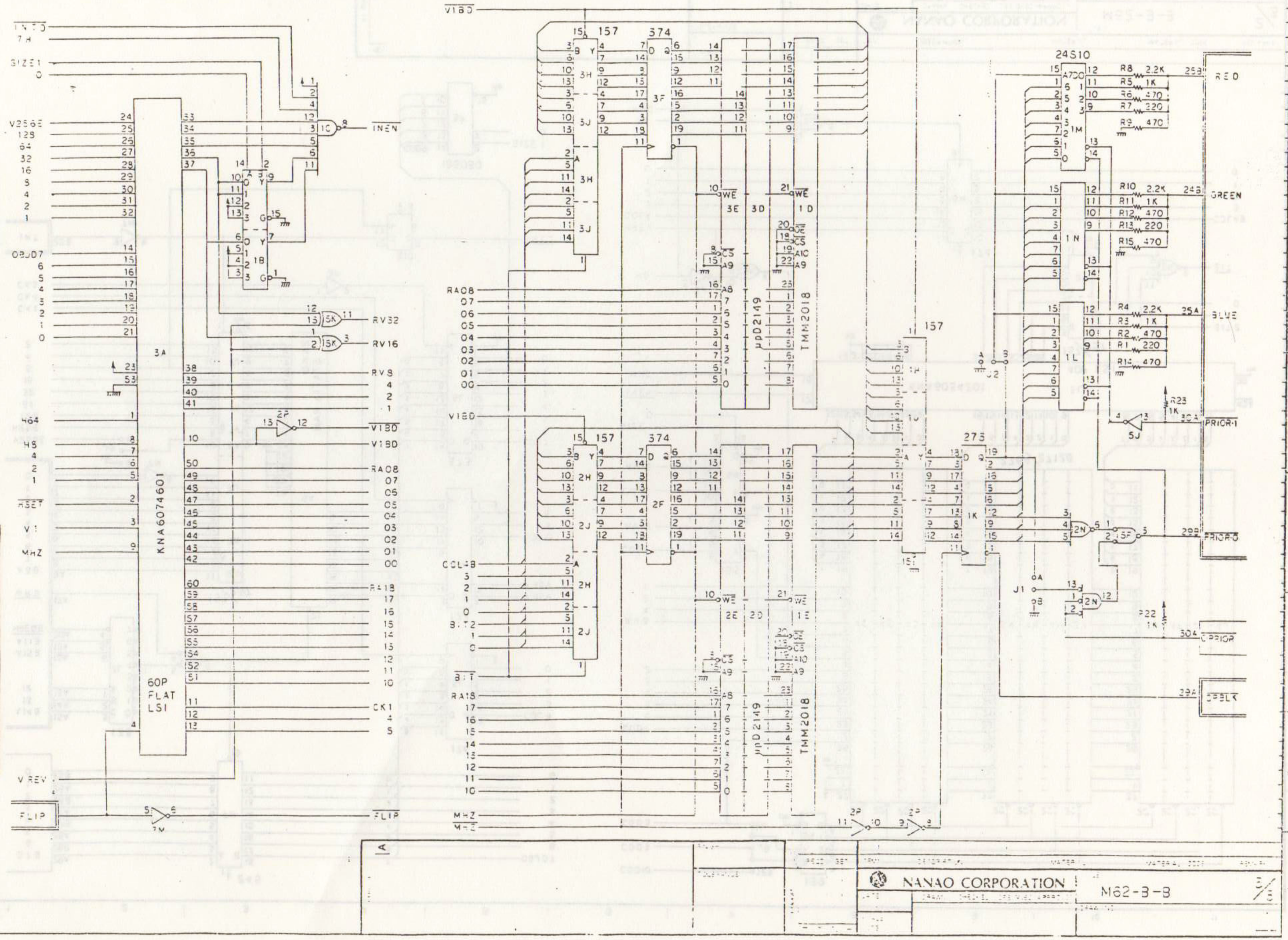


M62-B-B Page Two Of Three

NANAO CORPORATION

M62-B-B 2/3

M62-B-B Page Three Of Three



NANAO

SYMBOL NO.	DESCRIPTION
	RESISTORS
R1	Carbon 470 ohm J ¼W 5%
R2	" 220 ohm J ¼W 5%
R3	" 2.2K ohm J ¼W 5%
R4	" 1K ohm J ¼W 5%
R5	" 470 ohm J ¼W 5%
R6	" 220 ohm J ¼W 5%
R7	" 1K ohm J ¼W 5%
R8	" 2.2K ohm J ¼W 5%
R9	" 220 ohm J ¼W 5%
R10	" 470 ohm J ¼W 5%
R11	" 1K ohm J ¼W 5%
R12	" 2.2K ohm J ¼W 5%

CHANGE | CHG. NO.

SHEET G-2/4

NANAO CORP. ST. TYPE K404-S

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Parts List M62-G Page One Of Four

NANAO CORP. ST. TYPE K403-S

NANAO

TITLE: M62-G Parts List | NO. | DATE

SYMBOL NO.	DISCRIPTION	
2B	TTL-IC	74LS157N
2C	"	"
2D	"	74LS00N
2F	"	74LS32N
2H	"	74LS74AN
2J	"	74LS85N
3A	"	74LS245N
3B	"	74LS27N
3J	"	74LS86N
3K	"	74LS74AN
3L	"	74LS04N
4A	"	74LS374N
4B	"	74LS273N
4J	"	74LS138N
4K	"	74LS32N
4L	"	74LS00N
2A	"	74LS273N
1C	S-RAM	M58725P or [illegible]
1D	"	"
1 2A	CUSTUM-LSI	KNA6032701
1 2B	"	KNA6032601
3 4FH	"	KNA6034201

CHANGE | CHG. ORDER RECEIVED | CHG. NO.

SHEET G-1/4

NANAO

SYMBOL NO.	DISCRIPTION	
CN1	CONNECTOR	XG3A-6014
CN2	"	"
	Assy CONNECTOR	(OJ40418A3) (2)
1F	IC-SOCKET	IC-02T-1603S4 (16P)
1H	"	"
1J	"	"
4C	"	IC-02T-2806S4 (28P)
4D	"	"
4E	"	"
	PCB	M62-G-A

CHANGE

DATA NO.

SHEET 3/4

NANAO CORP. ST.
TYPE K404-S

NANAO

SYMBOL NO.	DESCRIPTION	
	CAPACITORS	
C1	Ceramic	B 1000 pf K 50V
C2	Ceramic	SL 220 pf J 50V
C3	"	SL 220 pf J 50V
C4	Ceramic BC	0.1 uf Z 12V or 16V
C5	"	0.1 uf Z 12V or 16V
C6	"	0.1 uf Z 12V or 16V
C7	"	0.1 uf Z 12V or 16V
C8	"	0.1 uf Z 12V or 16V
C9	"	0.1 uf Z 12V or 16V
C10	"	0.1 uf Z 12V or 16V
C11	"	0.1 uf Z 12V or 16V
C12	"	0.1 uf Z 12V or 16V
C13	"	0.1 uf Z 12V or 16V
C14	"	0.1 uf Z 12V or 16V
C15	"	0.1 uf Z 12V or 16V
C16	"	0.1 uf Z 12V or 16V
C17	"	0.1 uf Z 12V or 16V
C18	"	0.1 uf Z 12V or 16V
C19	"	0.1 uf Z 12V or 16V
C20	"	0.1 uf Z 12V or 16V
C21	Ceramic	B 1000 pf K 50V
C22	"	SL 390 pf J 50V
C23	"	SL 390 pf J 50V
	6ページ Ceramic BC 0.1 uf Z 12V or 16V に	
	の指定 F 0.1 uf Z 25V を追加致します。	

CHANGE

DATA NO.

SHEET 4/4

NANAO

SYMBOL NO.	DESCRIPTION		
4F	S-RAM	M58725P	
4H	"	"	
4K	CPU	6803	
5D	"	Z80A/D730C-1	
4L	SOUND-G	AY-3-8910	
4M	"	"	
2K	SOUND-SYNC	MSM5205	
3K	"	"	
1M	LINEAR-IC	LM324	O
2L	"	LM358	O
	COMPARATOR	M51202	
3M	C-MOS-IC	TC4584	O
1L	POWER-AMP	M51516L	

M62-G
Parts List Page One Of Thirteen

CHANGE | PART NO.

SHEET A-2

NANAO

TITLE: M62-A Parts List | NO. | DATE

SYMBOL NO.	DESCRIPTION		
1B	TTL-IC	74LS367N	O
1C	"	74LS244N	O
1D	"	"	O
1E	"	74LS138N	O
1F	"	"	O
1H	"	74LS175N	O
1J	"	74LS139N	O
1K	"	74LS10N	O
2B	"	74LS367N	O
2C	"	74LS244N	O
2D	"	74LS273N	O
2E	"	74LS138N	O
2F	"	74LS373N	O
2H	"	74LS173N	O
2J	"	"	O
5A	"	74LS86N	O
5B	"	74LS368N	O
5E	"	74LS365N/74LS367N	O
5F	"	" / "	O
5H	"	" / "	O
6B	"	74LS245N	O
6E	"	74LS365N/74LS367N	O
6F	"	74LS32N	O
6H	"	74LS74N	O
6J	"	74LS138N	O
6K	"	74LS04N	O
6L	"	74LS138N	O
6M	"	74LS20N	O

CHANGE | DRAWN | CHECKED | DATE CHECKED | DRAWN NO.

SHEET A-1

NANAO

SYMBOL NO.	DESCRIPTION		
R34	Carbon	100K ohm J ¼W 5% (UB)	O
R35	"	100K ohm J ¼W 5% (UB)	O
R36	"	100K ohm J ¼W 5% (UB)	O
R37	"	47K ohm J ¼W 5% (UB)	O
R38	"	820 ohm J ¼W 5% (UB)	O
R39	"	22K ohm J ¼W 5% (UB)	O
R40	"	10K ohm J ¼W 5% (UB)	O
R41	"	10K ohm J ¼W 5% (UB)	O
R42	"	150K ohm J ¼W 5% (UB)	O
R43	"	470 ohm J ¼W 5% (UB)	O
R44	"	100K ohm J ¼W 5% (UB)	O
R45	"	1K ohm J ¼W 5% (UB)	O
R46	"	12K ohm J ¼W 5% (UB)	O
R47	"	100K ohm J ¼W 5% (UB)	O
R48	"	470 ohm J ¼W 5% (UB)	O
R49	"	10K ohm J ¼W 5% (UB)	O
R50	"	2.2K ohm J ¼W 5% (UB)	O
R51	"	150K ohm J ¼W 5% (UB)	O
R52	"	100K ohm J ¼W 5% (UB)	O
R53	"	100K ohm J ¼W 5% (UB)	O
R54	"	680 ohm J ¼W 5% (UB)	O
R55	"	510K ohm J ¼W 5% (UB)	O
R56			
R57	Carbon	560 ohm J ¼W 5% (UB)	O
R58	"	39K ohm J ¼W 5% (UB)	O
R59	"	560 ohm J ¼W 5% (UB)	O
R60	"	39K ohm J ¼W 5% (UB)	O
R61	"	100K ohm J ¼W 5% (UB)	O
R62	"	100K ohm J ¼W 5% (UB)	O
R63	"	1K ohm J ¼W 5% (UB)	O
R64	"	10K ohm J ¼W 5% (UB)	O
R65	"	27K ohm J ¼W 5% (UB)	O
R66	"	1M ohm J ¼W 5% (UB)	O
R67	"	100K ohm J ¼W 5% (UB)	O
R68	"	100K ohm J ¼W 5% (UB)	O

CHANGE

SHEET A- 4/13

NANAO CORP. ST.
TYPE KHM-S

NANAO

SYMBOL NO.	DESCRIPTION		
	RESISTORS		
R1	Carbon	100 ohm J ¼W 5% (UB)	O
R2	"	100 ohm J ¼W 5% (UB)	O
R3	"	100 ohm J ¼W 5% (UB)	O
R4	"	100 ohm J ¼W 5% (UB)	O
R5	"	100 ohm J ¼W 5% (UB)	O
R6	"	100 ohm J ¼W 5% (UB)	O
R7	"	100 ohm J ¼W 5% (UB)	O
R8	"	100 ohm J ¼W 5% (UB)	O
R9	"	100 ohm J ¼W 5% (UB)	O
R10	"	100 ohm J ¼W 5% (UB)	O
R11	"	100 ohm J ¼W 5% (UB)	O
R12	"	100 ohm J ¼W 5% (UB)	O
R13	"	100 ohm J ¼W 5% (UB)	O
R14	"	100 ohm J ¼W 5% (UB)	O
R15	"	100 ohm J ¼W 5% (UB)	O
R16	"	100 ohm J ¼W 5% (UB)	O
R17	"	100 ohm J ¼W 5% (UB)	O
R18	"	100 ohm J ¼W 5% (UB)	O
R19	"	100 ohm J ¼W 5% (UB)	O
R20	"	1K ohm J ¼W 5% (UB)	O
R21	"	1K ohm J ¼W 5% (UB)	O
R22	"	470 ohm J ¼W 5% (UB)	O
R23	"	470 ohm J ¼W 5% (UB)	O
R24	"	10 ohm J ¼W 5% (UB)	O
R25	"	560 ohm J ¼W 5% (UB)	O
R26	"	4.7K ohm J ¼W 5% (UB)	O
R27	"	6.8K ohm J ¼W 5% (UB)	O
R28	"	150K ohm J ¼W 5% (UB)	O
R29	"	2.7K ohm J ¼W 5% (UB)	O
R30	"	10K ohm J ¼W 5% (UB)	O
R31	"	5.1K ohm J ¼W 5% (UB)	O
R32	"	4.7K ohm J ¼W 5% (UB)	O
R33	"	100 ohm J ¼W 5% (UB)	O

CHANGE

SHEET A- 3/13

NANAO

SYMBOL NO.	DESCRIPTION		
R104	Carbon	22K ohm J ¼W 5% (UB)	O
R105	"	470K ohm J ¼W 5% (UB)	O
R106	"	150K ohm J ¼W 5% (UB)	O
R107	"	150K ohm J ¼W 5% (UB)	O
R108	"	560K ohm J ¼W 5% (UB)	O
R109	"	2.2K ohm J ¼W 5% (UB)	O
R110	"	4.7K ohm J ¼W 5% (UB)	O
R111	"	22K ohm J ¼W 5% (UB)	O
R112	"	1K ohm J ¼W 5% (UB)	O
R113	"	100 ohm J ¼W 5% (UB)	O
R114	"	1K ohm J ¼W 5% (UB)	O
R115	"	1K ohm J ¼W 5% (UB)	O
R116	"	1K ohm J ¼W 5% (UB)	O
R117	"	1K ohm J ¼W 5% (UB)	O
R118	"	330 ohm J ¼W 5% (UB)	O
R119	"	22K ohm J ¼W 5% (UB)	O
RA1	Block	IHR-8-472JA	
RA2	"	IHR-8-472JA	
RA3	"	IHR-8-472JA	
RA4	"	IHR-8-472JA	
RA5	"	IHR-8-472JA	
RA6	"	IHR-8-472JA	
RA7	"	IHR-8-472JA	
RA8	"	IHR-8-472JA	
RA9	"	IHR-8-223JA	
VR1	Semi-Fixed	VZ103KSL2B-50K ohm	

NANAO

SYMBOL NO.	DESCRIPTION		
R69	Carbon	1K ohm J ¼W 5% (UB)	O
R70	"	10K ohm J ¼W 5% (UB)	O
R71	"	100K ohm J ¼W 5% (UB)	O
R72	"	100K ohm J ¼W 5% (UB)	O
R73	"	10K ohm J ¼W 5% (UB)	O
R74	"	10K ohm J ¼W 5% (UB)	O
R75	"	10K ohm J ¼W 5% (UB)	O
R76	"	47K ohm J ¼W 5% (UB)	O
R77	"	2.2K ohm J ¼W 5% (UB)	O
R78	"	3.3K ohm J ¼W 5% (UB)	O
R79	"	10K ohm J ¼W 5% (UB)	O
R80	"	27K ohm J ¼W 5% (UB)	O
R81	"	220 ohm J ¼W 5% (UB)	O
R82	"	2.2M ohm J ¼W 5% (UB)	O
R83	"	12K ohm J ¼W 5% (UB)	O
R84	"	1K ohm J ¼W 5% (UB)	O
R85	"	2.2M ohm J ¼W 5% (UB)	O
R86	"	10K ohm J ¼W 5% (UB)	O
R87	"	68K ohm J ¼W 5% (UB)	O
R88	"	10K ohm J ¼W 5% (UB)	O
R89	"	22K ohm J ¼W 5% (UB)	O
R90	"	390K ohm J ¼W 5% (UB)	O
R91	"	100K ohm J ¼W 5% (UB)	O
R92	"	22k ohm J ¼W 5% (UB)	O
R93	"	1K ohm J ¼W 5% (UB)	O
R94	"	22K ohm J ¼W 5% (UB)	O
R95	"	330K ohm J ¼W 5% (UB)	O
R96	"	150K ohm J ¼W 5% (UB)	O
R97	"	150K ohm J ¼W 5% (UB)	O
R98	"	680K ohm J ¼W 5% (UB)	O
R99	"	1K ohm J ¼W 5% (UB)	O
R100	"	560K ohm J ¼W 5% (UB)	O
R101	"	150K ohm J ¼W 5% (UB)	O
R102	"	150K ohm J ¼W 5% (UB)	O
R103	"	470K ohm J ¼W 5% (UB)	O

NANAO

SYMBOL NO.	DESCRIPTION			
C34	Polyester	0.001	uf J 50V	O
C35	"	0.001	uf J 50V	O
C36	"	0.0068	uf J 50V	O
C37	"	0.022	uf J 50V	O
C38	"	0.001	uf J 50V	O
C39	"	0.001	uf J 50V	O
C40	Ceramic	12	pf J 50V	O
C41	Electrlytic	1	uf M 50V	O
C42	Polyester	0.0012	uf J 50V	O
C43	"	0.0012	uf J 50V	O
C44	Electrlytic	1	uf M 50V	O
C45	Polyester	0.022	uf J 50V	O
C46	"	0.1	uf J 50V	O
C47	Electrlytic	1	uf M 50V	O
C48	"	0.47	uf M 50V	O
C49	Polyester	0.0033	uf J 50V	O
C50	"	0.022	uf J 50V	O
C51	"	0.022	uf J 50V	O
C52	"	0.027	uf J 50V	O
C53	"	0.027	uf J 50V	O
C54	Ceramic	220	pf J 50V	O
C55	"	100	pf J 50V	O
C56	Polyester	0.0068	uf J 50V	O
C57	"	0.0068	uf J 50V	O
C58	Electrlytic	47	uf M 16V	O
C59	Polyester	0.0068	uf J 50V	O
C60	"	0.022	uf J 50V	O
C61	"	0.022	uf J 50V	O
C62	"	0.0068	uf J 50V	O
C63	"	0.001	uf J 50V	O
C64	"	0.068	uf J 50V	O
C65	"	0.068	uf J 50V	O
C66	"	0.068	uf J 50V	O
C67	"	0.015	uf J 50V	O
C68	"	0.015	uf J 50V	O

NANAO CRAFT ST. TYPE NAM-S

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M62-A
Parts List Page Seven Of Thirteen

NANAO CRAFT ST. TYPE NAM-S

NANAO

SYMBOL NO.	DESCRIPTION			
	CAPACITORS			
C1	Ceramic BC	0.1	uf Z 12V or 16V	O
C2	"	0.1	uf Z 12V or 16V	O
C3	"	0.1	uf Z 12V or 16V	O
C4	"	0.1	uf Z 12V or 16V	O
C5	"	0.1	uf Z 12V or 16V	O
C6	"	0.1	uf Z 12V or 16V	O
C7	"	0.1	uf Z 12V or 16V	O
C8	"	0.1	uf Z 12V or 16V	O
C9	"	0.1	uf Z 12V or 16V	O
C10	"	0.1	uf Z 12V or 16V	O
C11	"	0.1	uf Z 12V or 16V	O
C12	"	0.1	uf Z 12V or 16V	O
C13	"	0.1	uf Z 12V or 16V	O
C14	"	0.1	uf Z 12V or 16V	O
C15	"	0.1	uf Z 12V or 16V	O
C16	"	0.1	uf Z 12V or 16V	O
C17	"	0.1	uf Z 12V or 16V	O
C18	"	0.1	uf Z 12V or 16V	O
C19	"	0.1	uf Z 12V or 16V	O
C20	Electorlytic	100	uf M 25V	O
C21	Tantal	10	uf M 25V	O
C22	Electorlytic	220	uf M 16V	O
C23	Polyester	0.15	uf J 50V	O
C24	Electorlytic	1000	uf M 10V	O
C25	"	1000	uf M 10V	O
C26	"	1	uf M 50V	O
C27	"	47	uf M 16V	O
C28	"	1	uf M 50V	O
C29	Polyester	0.01	uf J 50V	O
C30	"	0.01	uf J 50V	O
C31	Electorlytic	0.47	uf M 50V	O
C32	Polyester	0.0033	uf J 50V	O
C33	Electorlytic	1	uf M 50V	O

NANAO

SYMBOL NO.	DESCRIPTION			
C104	Ceramic BC	0.1	uf Z 12V or 16V	O
C105	"	0.1	uf Z 12V or 16V	O
C106	"	0.1	uf Z 12V or 16V	O
C107	"	0.1	uf Z 12V or 16V	O
C108	"	0.1	uf Z 12V or 16V	O
C109	"	0.1	uf Z 12V or 16V	O
C110	"	0.1	uf Z 12V or 16V	O
C111	"	0.1	uf Z 12V or 16V	O
C112	"	0.1	uf Z 12V or 16V	O
C113	"	0.1	uf Z 12V or 16V	O
C114	"	0.1	uf Z 12V or 16V	O
C115	"	0.1	uf Z 12V or 16V	O
C116	"	0.1	uf Z 12V or 16V	O
C117	"	0.1	uf Z 12V or 16V	O
C118	"	0.1	uf Z 12V or 16V	O
C119	"	0.1	uf Z 12V or 16V	O
C120	"	0.1	uf Z 12V or 16V	O
C121	"	0.1	uf Z 12V or 16V	O
C122	"	0.1	uf Z 12V or 16V	O
C123				
C124	Ceramic	0.01	uf Z 50V	O
	Ceramic BC	0.1	uf Z 12V or 16V	
	Ceramic	390	pf J 50V	

NANAO CORP. ST.
TYPE 9401-S

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NANAO

SYMBOL NO.	DESCRIPTION			
C69	Polyester	0.01	uf J 50V	O
C70	"	0.022	uf J 50V	O
C71	Ceramic	220	pf J 50V	O
C72	Polyester	0.012	uf J 50V	O
C73	"	0.01	uf J 50V	O
C74	Ceramic	22	pf J 50V	O
C75	"	22	pf J 50V	O
C76	Polyester	0.068	uf J 50V	O
C77	"	0.012	uf J 50V	O
C78	Electrlytic	47	uf M 16V	O
C79	Ceramic BC	0.1	uf Z 12V or 16V	O
C80	Electrlytic	10	uf M 16V	O
C81	Ceramic	0.01	uf J 50V	O
C82	"	1000	pf K 50V	O
C83	Ceramic BC	0.1	uf Z 12V or 16V	O
C84	"	0.1	uf Z 12V or 16V	O
C85	"	0.1	uf Z 12V or 16V	O
C86	"	0.1	uf Z 12V or 16V	O
C87	"	0.1	uf Z 12V or 16V	O
C88	"	0.1	uf Z 12V or 16V	O
C89	"	0.1	uf Z 12V or 16V	O
C90	"	0.1	uf Z 12V or 16V	O
C91	"	0.1	uf Z 12V or 16V	O
C92	"	0.1	uf Z 12V or 16V	O
C93	"	0.1	uf Z 12V or 16V	O
C94	"	0.1	uf Z 12V or 16V	O
C95	"	0.1	uf Z 12V or 16V	O
C96	"	0.1	uf Z 12V or 16V	O
C97	"	0.1	uf Z 12V or 16V	O
C98	"	0.1	uf Z 12V or 16V	O
C99	"	0.1	uf Z 12V or 16V	O
C100	"	0.1	uf Z 12V or 16V	O
C101	"	0.1	uf Z 12V or 16V	O
C102	"	0.1	uf Z 12V or 16V	O
C103	"	0.1	uf Z 12V or 16V	O

NANAO CORP. ST.
TYPE 9401-S

NANAO

SYMBOL NO.	DESCRIPTION	
X1	CRYSTAL	384 KHz
X2	"	3.579545 MHz
CN1	CONNECTOR	XG3A-6014
CN2	"	"
	SOCKET	XG3M-6001 (2)
	STRAIN RELIEF	XG3T-6004 (2)
J1	SHORT-BASE	IMSA-9202B-1-3
	SHORT-HEAD	IMSA-9202-H
J2	SHORT-BASE	IMSA-9202B-1-3
	SHORT-HEAD	IMSA-9202-H
J3		
J4	SHORT-BASE	IMSA-9202B-1-3
	SHORT-HEAD	IMSA-9202-H
J5		
J6		
J7		
	HEART-SINK	5D00609 (DRAW NO.)
	TAP-SCREW-2-P-BIND	3x8 (2)
	PCB	M62-A-B

NANAO CORP ST
TYPE K-104-S

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NANAO

SYMBOL NO.	DESCRIPTION	
D1	Diode	S5277B
D2	"	"
D3	"	1S1588
D4	"	"
D5	"	"
D6		
D7	"	"
D8	"	"
TR1	Transistor	2SC2120
TR2	"	"
TR3	"	2SC945
TR4	"	"
TR5	"	"
TR6	"	"
TR7	"	"
TR8	"	2SC1815
TR9	"	2SC945
TR10	"	"
1A	DIP-SW	A6MS-8
2A	"	"

NANAO CORP ST
TYPE K-104-S

NANAO

SYMBOL NO.	DESCRIPTION	
3A	IC-SOCKET	IC-02T-2806S4 (28P)
3B	"	"
3D	"	"
3E	"	"
3F	"	"
3H	"	"
4A	"	"
4B	"	"
4D	"	"
4E	"	"
4K	"	C-641268-3 (40P)
4L	"	"
4M	"	"
5D	"	"

NANAO CORP. ST.
TYPE NO.-S

NANAO

SYMBOL NO.	DESCRIPTION		
7E	TTL-IC	74LS365N/74LS367N	○
7F	"	" / "	○
7H	"	74LS245N	○
7J	"	74LS157N/74LS257N	○
7K	"	" / "	○
7L	"	74LS138N	○
7M	"	74LS04N	○
7N	"	74LS04N (T.I.三菱指定)	○
1D	S-RAM	TMM2018	
1E	"	"	
2D	"	uPD2149	
2E	"	"	
3D	"	"	
3E	"	"	
6K	"	M58725P	
3A	CUSTUM-LSI	KNA6074601	
3L	"	KNA6034201	
5B	"	KNA6021901	
5E	"	"	

NANAO CORP. ST.
TYPE K404-S

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NANAO

TITLE	NO.
M62-B Parts List	DATE

NANAO CORP. ST.
TYPE K403-S

SYMBOL NO.	DESCRIPTION		
1B	TTL-IC	74LS153N	○
1C	"	74LS30N	○
1H	"	74LS157N	○
1J	"	"	○
1K	"	74LS273N	○
2F	"	74LS374N	○
2H	"	74LS157N	○
2J	"	"	○
2M	"	" /74LS257N	○
2N	"	74LS27N	○
2P	"	74LS04N	○
3F	"	74LS374N	○
3H	"	74LS157N	○
3J	"	"	○
5A	"	74LS74N	○
5C	"	74LS10N	○
5F	"	74LS32N	○
5H	"	74LS74N	○
5J	"	74LS04N	○
5K	"	74LS86N	○
5L	"	74LS174N	○
5M	"	74LS174N	○
5N	"	74LS139N	○
6A	"	74LS157N/74LS257N	○
6C	"	74LS30N	○
6H	"	74LS08N	○
6L	"	74LS373N	○
6M	"	74LS174N	○
6N	"	74LS153N	○
6P	"	74LS112N	○
7B	"	74LS365N/74LS367N	○
7C	"	" / "	○
7D	"	" / "	○

NANAO

SYMBOL NO.	DESCRIPTION		
	——CAPACITORS——		
C1	Ceramic BC	0.1 uf Z 12V or 16V	O
C2	"	0.1 uf Z 12V or 16V	O
C3	"	0.1 uf Z 12V or 16V	O
C4	"	0.1 uf Z 12V or 16V	O
C5	"	0.1 uf Z 12V or 16V	O
C6	"	0.1 uf Z 12V or 16V	O
C7	"	0.1 uf Z 12V or 16V	O
C8	"	0.1 uf Z 12V or 16V	O
C9	"	0.1 uf Z 12V or 16V	O
C10	"	0.1 uf Z 12V or 16V	O
C11	"	0.1 uf Z 12V or 16V	O
C12	"	0.1 uf Z 12V or 16V	O
C13	"	0.1 uf Z 12V or 16V	O
C14	"	0.1 uf Z 12V or 16V	O
C15	"	0.1 uf Z 12V or 16V	O
C16	"	0.1 uf Z 12V or 16V	O
C17	"	0.1 uf Z 12V or 16V	O
C18	"	0.1 uf Z 12V or 16V	O
C19	"	0.1 uf Z 12V or 16V	O
C20	"	0.1 uf Z 12V or 16V	O
C21	"	0.1 uf Z 12V or 16V	O
C22	"	0.1 uf Z 12V or 16V	O
C23			
C24			
C25	"	0.1 uf Z 12V or 16V	O
C26	Ceramic	22 pf J 50V	O
C27	"	47 pf J 50V	O
C28	Ceramic BC	0.1 uf Z 12V or 16V	O
C29	"	0.1 uf Z 12V or 16V	O
C30	"	0.1 uf Z 12V or 16V	O
C31	"	0.1 uf Z 12V or 16V	O
C32	"	0.1 uf Z 12V or 16V	O
C33	"	0.1 uf Z 12V or 16V	O
C34	"	0.1 uf Z 12V or 16V	O

NANAO CORP. ST.
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NANAO

SYMBOL NO.	DESCRIPTION	
	——RESISTORS——	
R1	Carbon	220 ohm J ¼W 5%
R2	"	470 ohm J ¼W 5%
R3	"	1K ohm J ¼W 5%
R4	"	2.2K ohm J ¼W 5%
R5	"	1K ohm J ¼W 5%
R6	"	470 ohm J ¼W 5%
R7	"	220 ohm J ¼W 5%
R8	"	2.2K ohm J ¼W 5%
R9	"	470 ohm J ¼W 5%
R10	"	2.2K ohm J ¼W 5%
R11	"	1K ohm J ¼W 5%
R12	"	470 ohm J ¼W 5%
R13	"	220 ohm J ¼W 5%
R14	"	470 ohm J ¼W 5%
R15	"	470 ohm J ¼W 5%
R16		
R17		
R18	Carbon	1K ohm J ¼W 5%
R19	"	1K ohm J ¼W 5%
R20		
R21	Carbon	1K ohm J ¼W 5%
R22	"	1K ohm J ¼W 5%
R23	"	1K ohm J ¼W 5%

NANAO CORP. ST.
TYPE 9404-S

SYMBOL NO.	DESCRIPTION		
J8	SHORT-BASE	IMSA-9202B-1-3	
	SHORT-HEAD	IMSA-9202-H	
J9			
1L	IC-SOCKET	IC-02T-1603S4 (16P)	
1M	"	"	
1N	"	"	
3M	"	IC-02T-2806S4 (28P)	
3N	"	"	
4A	"	"	
4C	"	"	
4D	"	"	
4E	"	"	
4F	"	"	
4J	"	"	
4K	"	"	
4L	"	"	
4M	"	"	
4N	"	"	
6F	"	IC-02T-1603S4 (16P)	
	PCB	M62-B-B	

SYMBOL NO.	DESCRIPTION		
C35	Ceramic BC	0.1 uf Z 12V or 16V	O
C36	"	0.1 uf Z 12V or 16V	O
C37	"	0.1 uf Z 12V or 16V	O
C38	"	0.1 uf Z 12V or 16V	O
△	Ceramic	33 pf J 50V	
△	"	390 pf J 50V	
X1	CRYSTAL	24 MHz	
X2	"	18.432 MHz	
CN1	CONNECTOR	FC60A2MAB and F0	
CN2	"	FC60A2MAB and F0	
J1	SHORT-BASE	IMSA-9202B-1-3	
	SHORT-HEAD	IMSA-9202-H	
J2			
J3	SHORT-BASE	IMSA-9202B-1-3	
	SHORT-HEAD	IMSA-9202-H	
J4	SHORT-BASE	IMSA-9202B-1-3	
	SHORT-HEAD	IMSA-9202-H	
J5			
J6			
J7	SHORT-BASE	IMSA-9202B-1-3	
	SHORT-HEAD	IMSA-9202-H	

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