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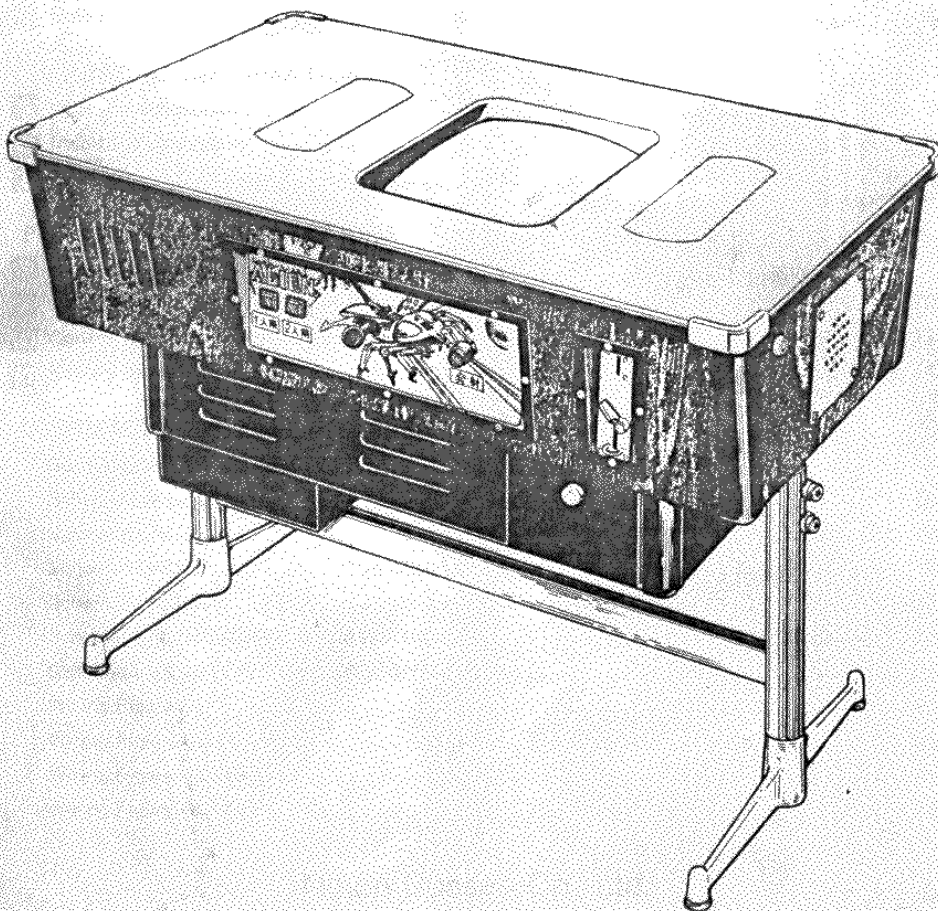
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PART-I MOON ALIEN

SERVICE INSTRUCTION



Nichibutsu

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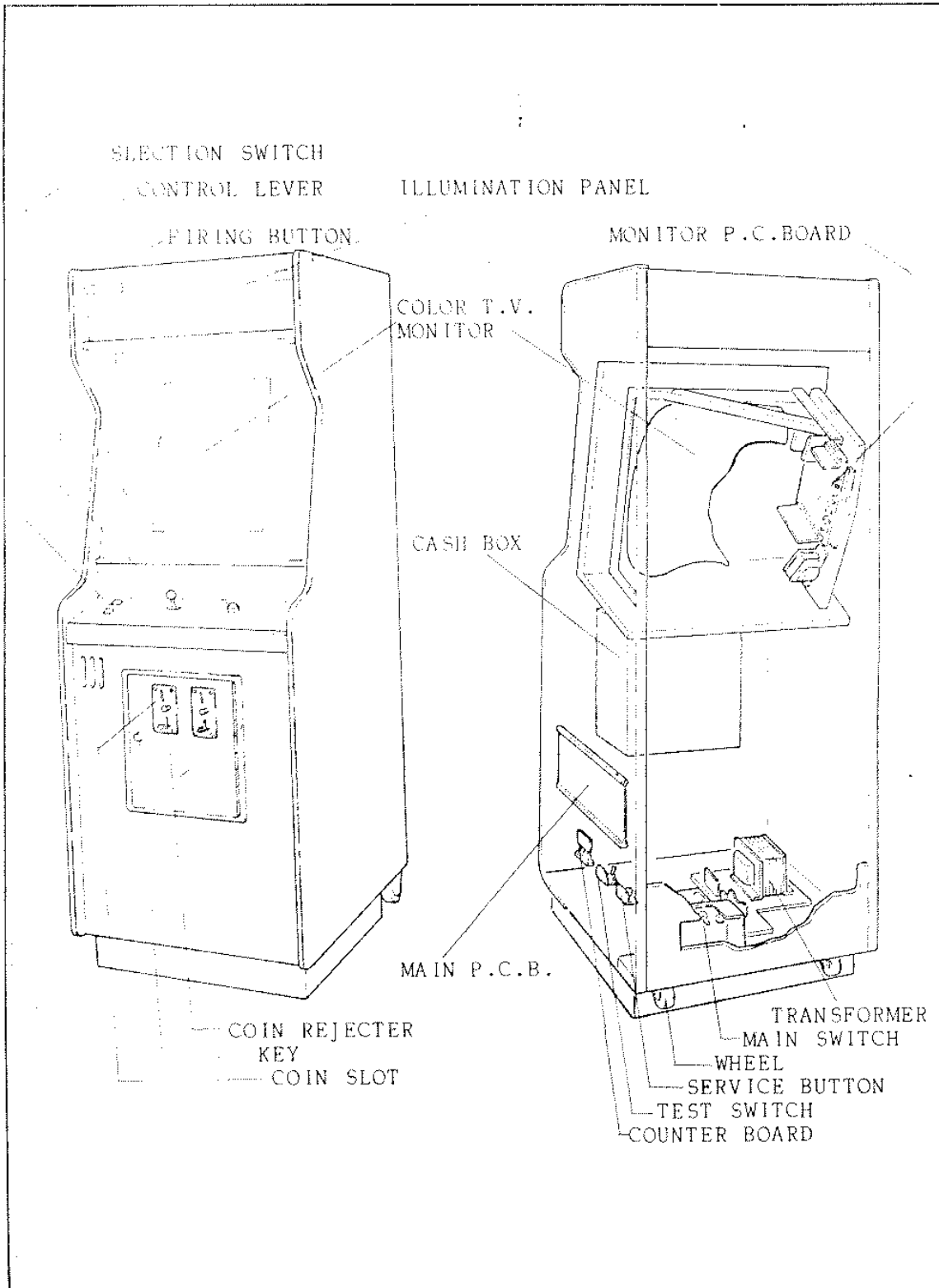
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Nihon Bussan Co., Ltd.

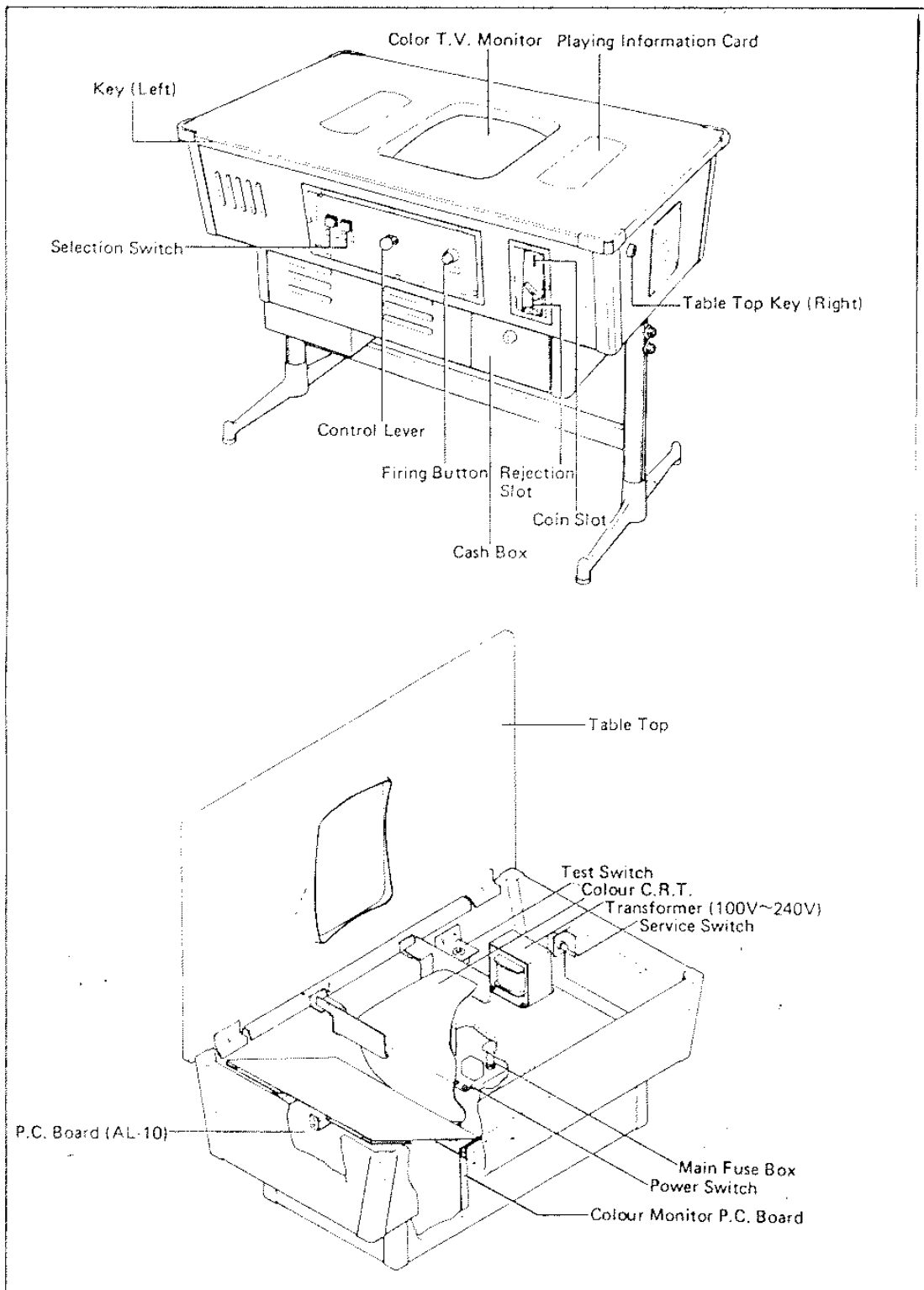
1

EACH PARTS NAME (UPRIGHT MODEL)



パートⅡ MOON ALIEN

EACH PARTS NAME



2

SPECIFICATIONS

POWER SOURCE	: 100 ~ 240V (Variable)
WATT CONSUMPTION	: 90W
COINAGE	: 1 coin per play, 1 coin per 2 plays, 2 coins per play, Free play.
PLAYER	: 1 or 2 players
GAME LIMIT	: 3 or 5 lasers
CASH BOX SIZE	: Width 137mm Height 140mm Depth 240mm
DIMENSIONS	: Width 836mm Depth 536mm Height 600 ~ 740mm (5 position adjustable)
KEYS	: Table keys 2 sets Cash box key 1 set
FUSE RATING	: 1 at 10A, 1 at 5A, 1 at 2A

- These instructions and specifications may be changed without prior notification.
- If this machine is reconstructed without our permission, we can not take responsibility for the machine.

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NOTES

- The part II moon alien has a T.V. monitor and care must be taken in moving this fragile machine.
- To prevent the cabinet over-heating do not place the moon alien directly in the sun or near heating.
- For a short time after connecting to power, the picture may be temporarily distorted.
- Do not check the solid state module with a tester even if you find out there is something wrong with it. The IC may be destroyed by the voltage of a tester.
- Disconnect the power supply before inserting or removing the P.C. board.

パート II MOON ALIEN

4 HOW TO PLAY

- The game may be played by one or two people.
- Insert coins.
- Select one or two player button.
- Move the control lever and slide the nostromo to the left or to the right.
- Avoid the attack from the aliens and fire the missiles from nostromo by pushing the firing button.
- Each alien has a different score according to it's color and position.

• **Score**
The first player's score is recorded at the top left of the screen, with the second player's tally at the top right. The maximum attainable score is 999,990.

• **High Score**
The highest score thus far attained is proudly displayed at the top center of the screen, a goal for every successive player to strive for.

• **Nostromo Spacecraft Standing By**
Nostromo Spacecraft standing by for launching are displayed at the lower left of the screen. One additional Nostromo is added whenever a predetermined score is attained.

• **Credits**
Coins can be deposited in bulk, up to a total of nine games. The number of games/credits remaining is indicated at the bottom left of the screen.

• **Alien Ships**
Various scores are registered, depending on the circumstances under which the alien ships are shot down in battle.

• **Aliens**
Scores also differ according to the kind of ship shot down — types of alien spacecraft are distinguished by color.

• **Assaulting Alien**
Alien ships drop out of fleet formation to launch their missiles.

• **Nostromo Spacecraft**
The Nostromo Spacecraft, launched by the Earth Defense Forces, maneuver through the enemy bombardment to destroy alien ships.

• **Energy Gauge**
Running out all your energy, your NOSTROMO is destroyed.

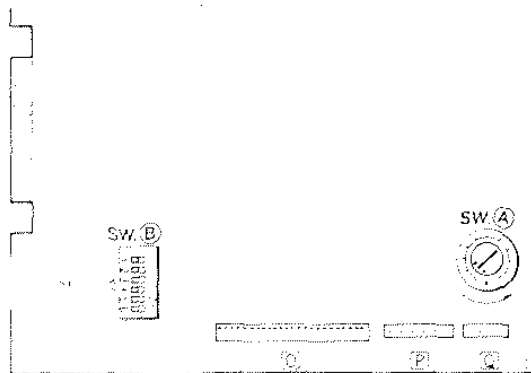
• **Number of Clears**
The number of clears appears at the bottom right of the screen, indicating clear times. A large screen is displayed for the tenth screen.

SCORE

	Alien Ship	Red Alien	Violet Alien	Green Alien
ALIEN SHIPS and ALIEN				
Inside Army Corps	60 Points	50 Points	40 Points	30 Points
During Assault	? Points	100 Points	80 Points	60 Points
	Double Score		150 Points	
1) An assaulting alien is shot down.		200 Points		300 Points
		3) An alien ship accompanied by one escort is shot down.	4) An alien ship escorted by two escort ships is shot down.	80 Points
				5) An alien ship is shot down after its two escorts have been shot down.

5 ADJUSTMENT INSTRUCTION

- **SW. A**
Switch for the adjustment of sound volume. It will become smaller in turning it to the arrow-mark.
- **SW. B**



DESCRIPTION	SW POSITION					
	1	2	3	4	5	6
(Coinage)						
Free play	ON	ON				
1 Coin / 2 play	OFF	ON				
2 Coin / 1 play	ON	OFF				
1 Coin / 1 play	<u>OFF</u>	<u>OFF</u>				
(Bonus score)						NOT FOR USE
0			OFF	OFF		
4 000			ON	OFF		
5 000			<u>OFF</u>	<u>ON</u>		
7 000			ON	ON		
(NOSTROMO)						
3					OFF	
5					ON	

Note

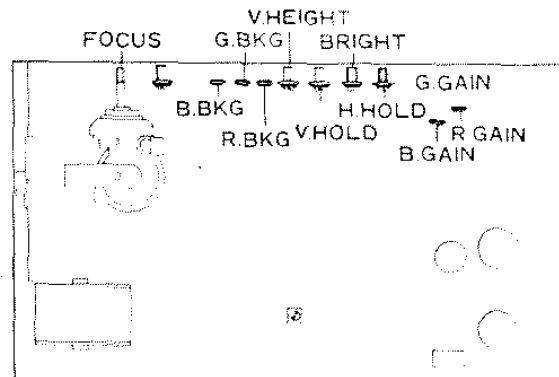
- Switch adjustment have to be done after disconnect the power supply
- Switches are set as underlined position when the machine is shipped

- **SERVICE BUTTON**
When you repair or adjust the set, it is for use in the case of increasing credit numbers without raising up the counter.

2 MONITOR ADJUSTMENT

The monitor is adjusted in best condition when shipping. If there is need to adjust it, do it as follows.

- **H. HOLD:**
Adjustment for keeping the picture horizontally.
- **V. LIN.:**
Adjustment for vertical lineality.
- **V. HOLD:**
Adjustment for keeping the picture vertically.
- **BLUE DRIVE RED DRIVE:**
Adjustment for white balance in bright picture.
- **BLUE, GREEN, RED, GAIN:**
Adjustment for white balance in dark picture.
- **FOCUS:**
Adjustment for focus on picture.



パート II MOON ALIEN

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SELF TEST

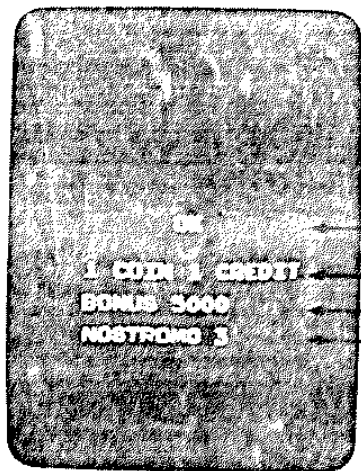
AUTOMATIC SELF TEST

The moon alien begins the self test automatically when it is connected to the power source. After the self test it will start the demonstration pattern on the T.V. monitor. If there is something wrong with P.C. board the monitor will repeat the self test and the letters of "BAD RAM" and "BAD ROM" will appear.

SELF TEST BY USING THE TEST SWITCH

When the test switch is turned ON, it will begin the "SELF TEST". The test switch is "OFF" in the normal position. The T.V. monitor will show a test pattern of numbers and letters for about 3 seconds.

This indicates that the test of the P.C. board has begun. The following sequence will be indicated on the screen.



- ① ROM RAM TEST
"OK" signs normal.
Numbers signs abnormal.
- ② COINAGE INDICATION.
- ③ BONUS POINTS.
- ④ NUMBERS OF NOSTROMO.

2 ~ 4 is variable by switch "B" (Ref. Page 4)

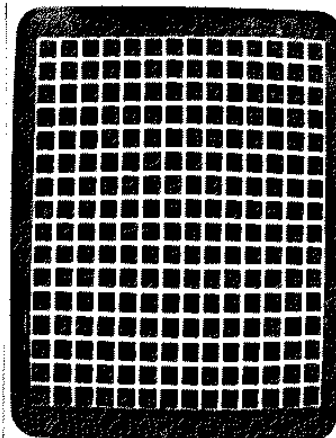
SWITCH TEST

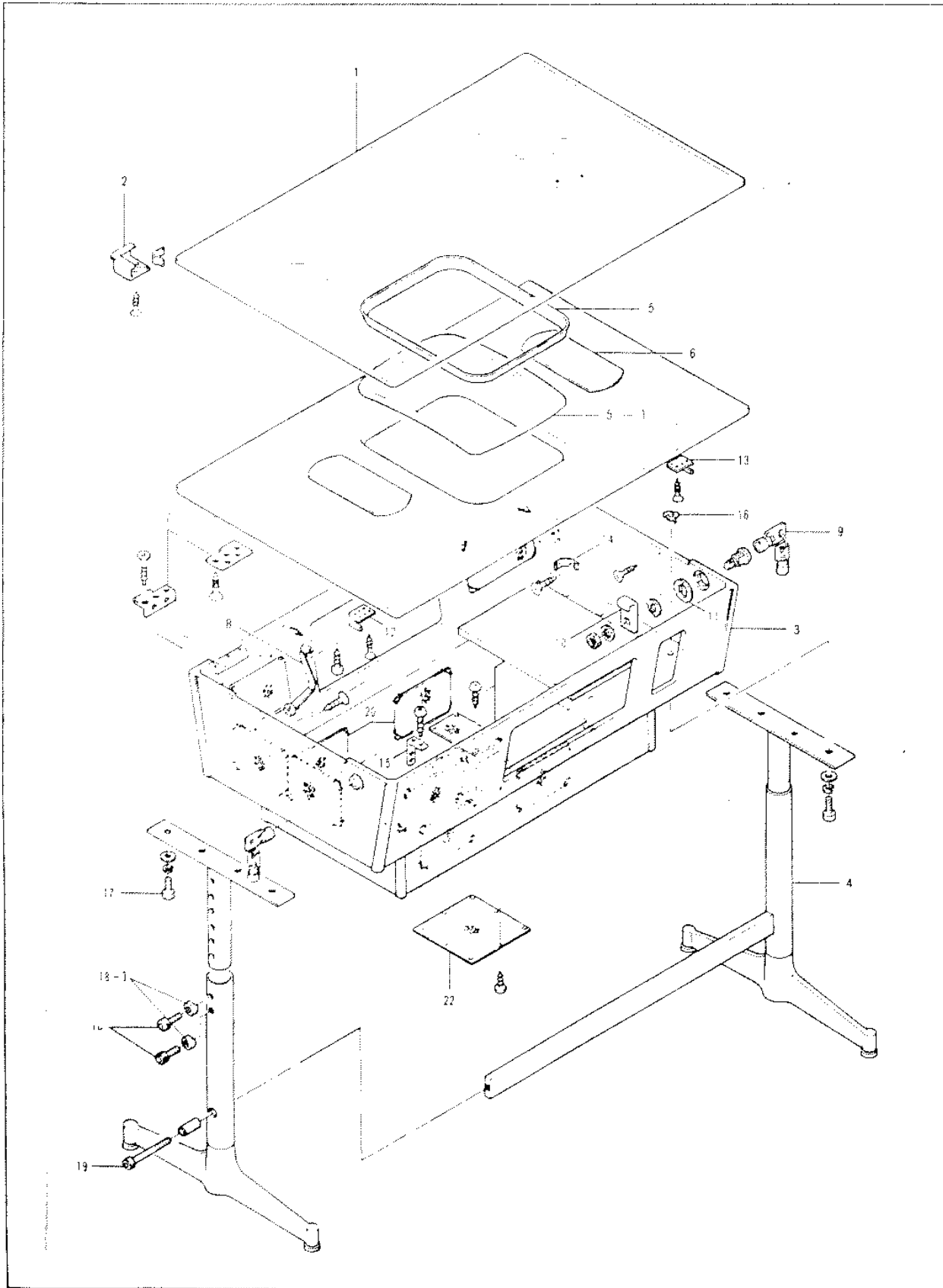
It is in normal condition that it sounds when pressing the firing button, start button (for 10R2), and coin switch.

SCREEN ADJUSTMENT

The T.V. monitor shows a block pattern for about one second when the test switch is turned "OFF".

This block pattern is provided to adjust the T.V. monitor and may be kept on the screen by rapidly switching "OFF" to "ON".





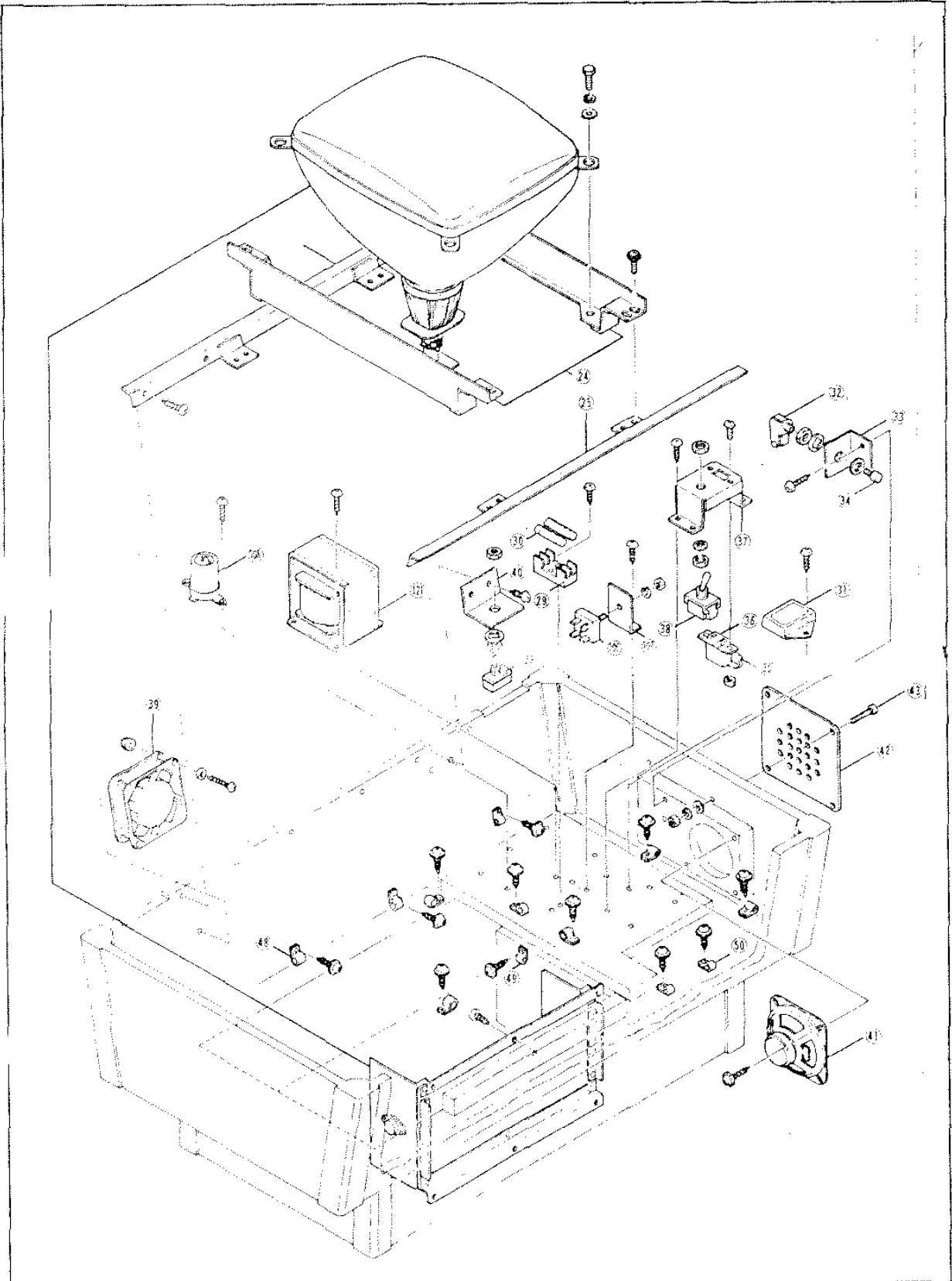
パート II MOON ALIEN

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EXTERIOR ASSEMBLY

NO.	PARTS NO.	DESCRIPTION	UNIT PRICE (YEN)
1	MB-20001	Table Top Glass	12,000
2	TA-50002	Corner Bracket	900
3	MB-20002	Table Cabinet	29,000
4	TA-50004	Table Leg	18,000
5	TA-50015	TV Mask	640
5-1	TA-50015-1	Smoked Plate	1,200
6	AL20001	Playing Information Card	300
7	TA50004	Hinge	730
8	TA50046	Stay	550
9	PC50085	Key (Set)	1,800
10	TA50024A	Key Lock Bracket (Left)	250
	TA50024B	Key Lock Bracket (Right)	250
11	PC50081	Key Metal Fittings	100
12	TA50018	Key Lock Bracket (Left)	360
13	BP10004	Key Lock Bracket (Right)	360
14	TA50047	Corner Metal Fittings	120
15	TA50048	Build Metal Fittings	100
16	TA50092	Claw Nut (5mmφ)	40
17	TA50054	Six-angle Bolt	40
18	TA50055	Cap Bolt (Small)	100
18-1	TA50055-1	Cap Washer	50
19	TA50056	Cap Bolt (Big)	150
20	BP10048	Punching Board	320
22	AL20003A	C.R.T. Bottom Cover (For Toei Musen)	600

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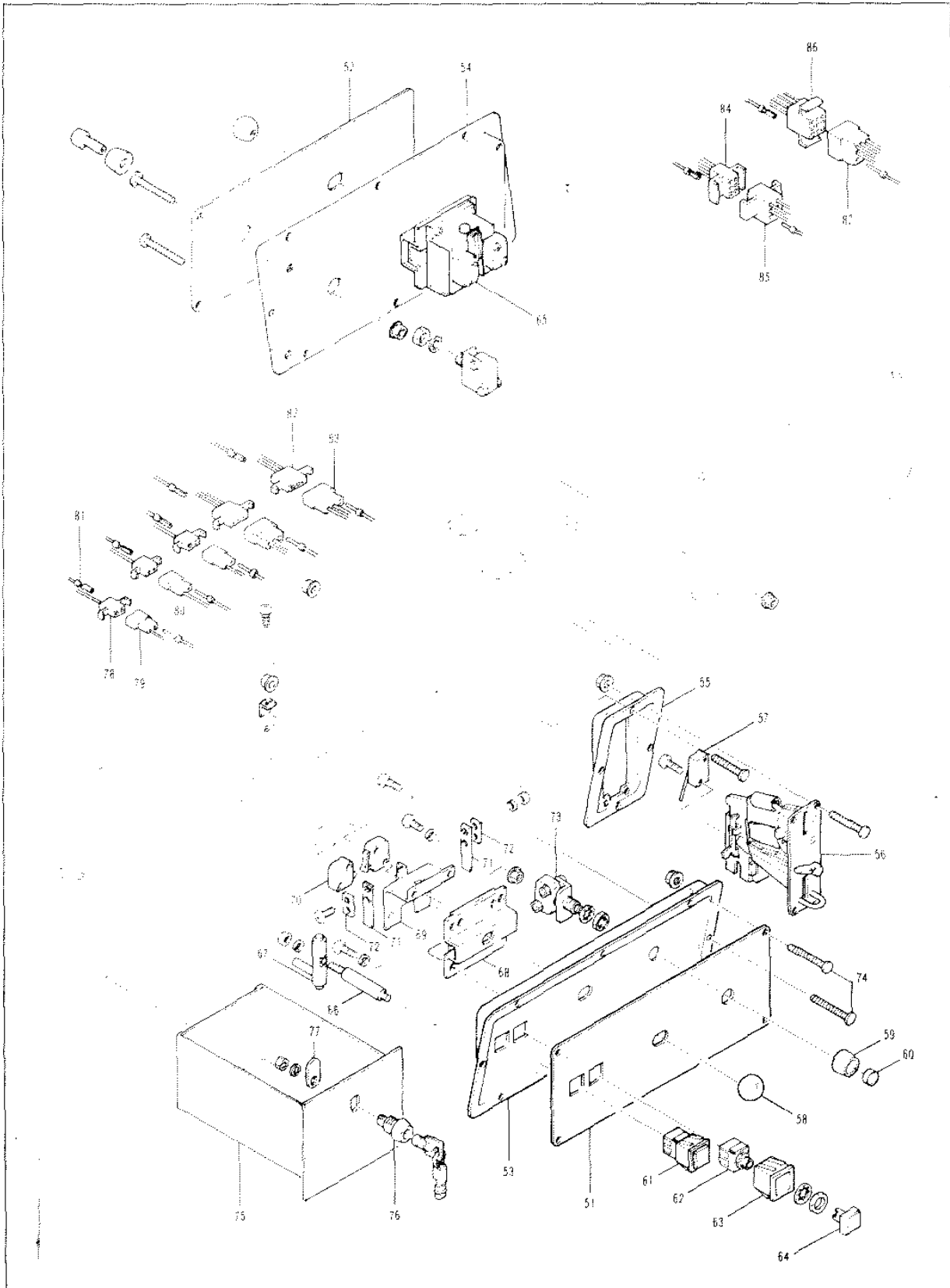
パート II MOON ALIEN

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VIDEO ASSEMBLY

NO.	PARTS NO.	DESCRIPTION	UNIT PRICE (YEN)
23	AL20004	Color C.R.T. Assy.	129,000
24	MB20004	TV Metal Bracket (Right, Left)	2,100
25	MB20005	TV Support Bracket (Front)	1,500
26	MB20006	TV Support Bracket (Rear)	1,400
121	MB20007	Transformer (100 ~ 240V)	10,000
29	TA50033	Fuse Holder (2P)	280
30	AL20006	Fuse (10A)	50
31	TA50036	Noise Filter	4,000
32	TA50026	Service SW.	800
33	BP10011	Service SW. Bracket	140
34	BP50028A	Service SW. Button	100
35	BP10016	Oil Capacitor	200
36	BP10015	A.C. Service Socket	120
37	BP10014	Service Outlet Bracket	430
38	BP10017	Power Source Change SW.	380
39	MB20012	Fan	7,500
40	AL20007	Test SW. Bracket	140
41	TA50020	Speaker	1,500
42	TA50023	Speaker Cover	900
43	PC50022	Ornament Speaker Bolt	20
48	PC50029	Nylon Clip (KD-2N)	40
49	PC50030	Nylon Clip (KD-4N)	50
50	PC50031	Nylon Clip (KD-7N)	60
106	MB20009	Rectifier	1,200
107	MB20010	Rectifier Fin	270
108	MB20011	Electrolysis Capacitor	1,500

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CONTROL PLATE ASSEMBLY

NO.	PARTS NO.	DESCRIPTION	UNIT PRICE (YEN)
51	AL20008	Control Plate A (Front)	2,000
52	AL20009	Control Plate B (Rear)	2,000
53	MB20015	Control Panel A (Front)	3,000
54	MB20017	Control Panel B (Rear)	2,500
55	MB20016	Coin Selector Bracket	1,600
	AL20018		
56	AL20010	Coin Selector	6,000
	AL20019		
57	TA50010	Micro SW.	1,200
58	MB20018	Control Knob	600
59	MB20019	Firing Button Base	130
60	MB20020	Firing Button	110
61	TA50029	Selection SW. Assy.	1,700
62	TA50029A	Selection SW.	1,200
63	TA50029B	Selection SW. Base	280
64	TA50029C	Selection SW. Button	200
65	AL20011	Control Lever Assy.	9,000
66	MB20021	Control Shaft	1,200
67	MB20022	Control Lever	800
68	MB20023	Control Base Bracket	1,200
69	MB20024	Control Mounting Bracket	1,000
70	MB20025	Control Micro SW.	900
71	MB20026	Spring Plate	100
72	MB20027	Spring Board Bracket	80
73	MB20028	Firing Micro SW.	1,200
74	PC50022	Ornament Bolt	20
75	BP	Cash Box	3,000
76	PC50085	Key (For Set)	1,800
77	TA50013	Key Rock Plate	50
78	TA50038	Socket Housing (2R)	60
79	TA50037	Socket Housing (2P)	60
80	TA59939	Pin	30
81	TA50040	Pin	30
82	PC50046	Socket Housing (3R)	80
83	PC50045	Socket Housing (3P)	80
84	PC50042	Socket Housing (6R)	130
85	PC50041	Socket Housing (6P)	130
86	MB20046	Socket Housing (9R)	150
87	MB20045	Socket Housing (9P)	150

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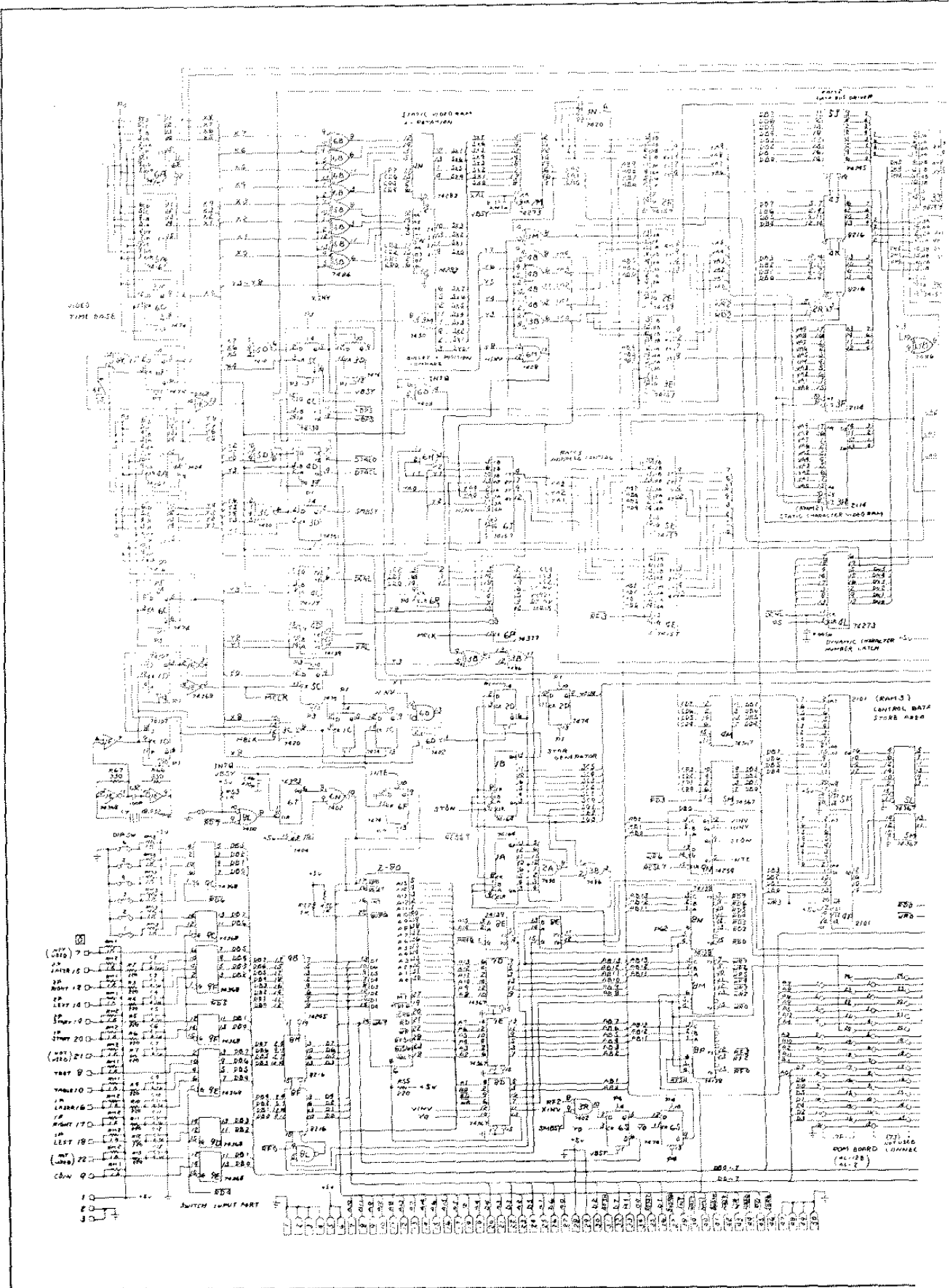
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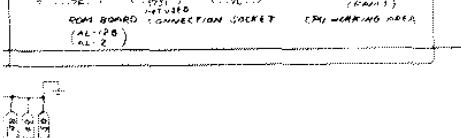
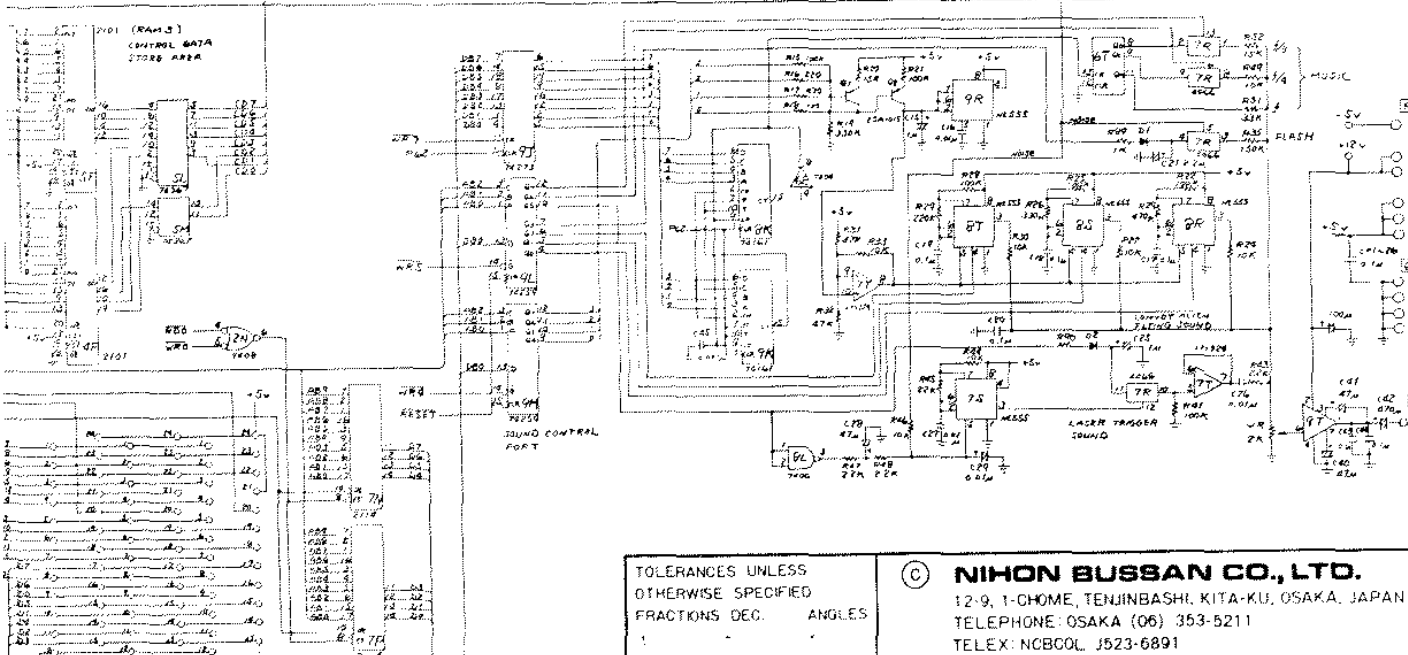
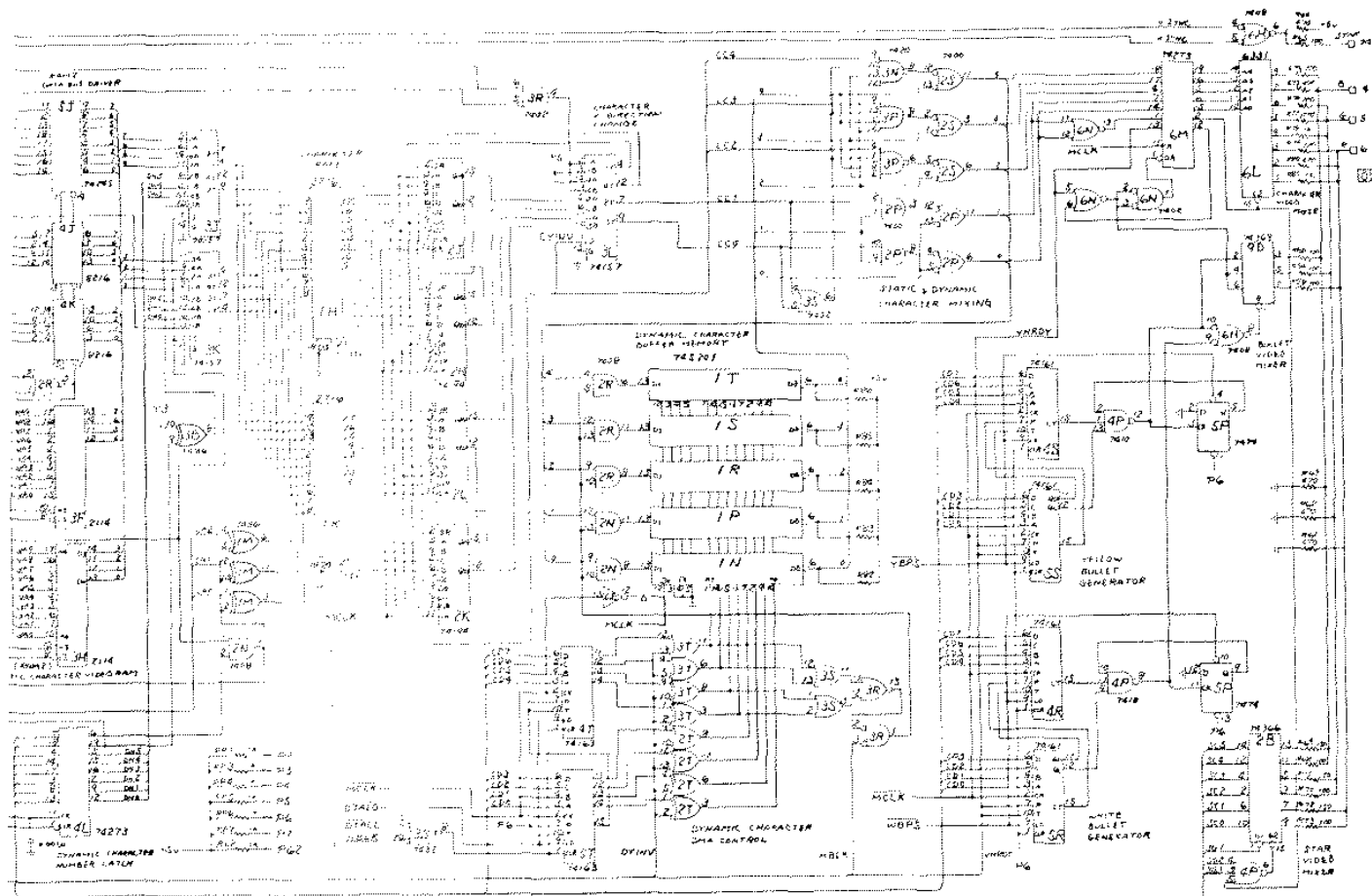
11

PRINTED BOARD ASSEMBLY

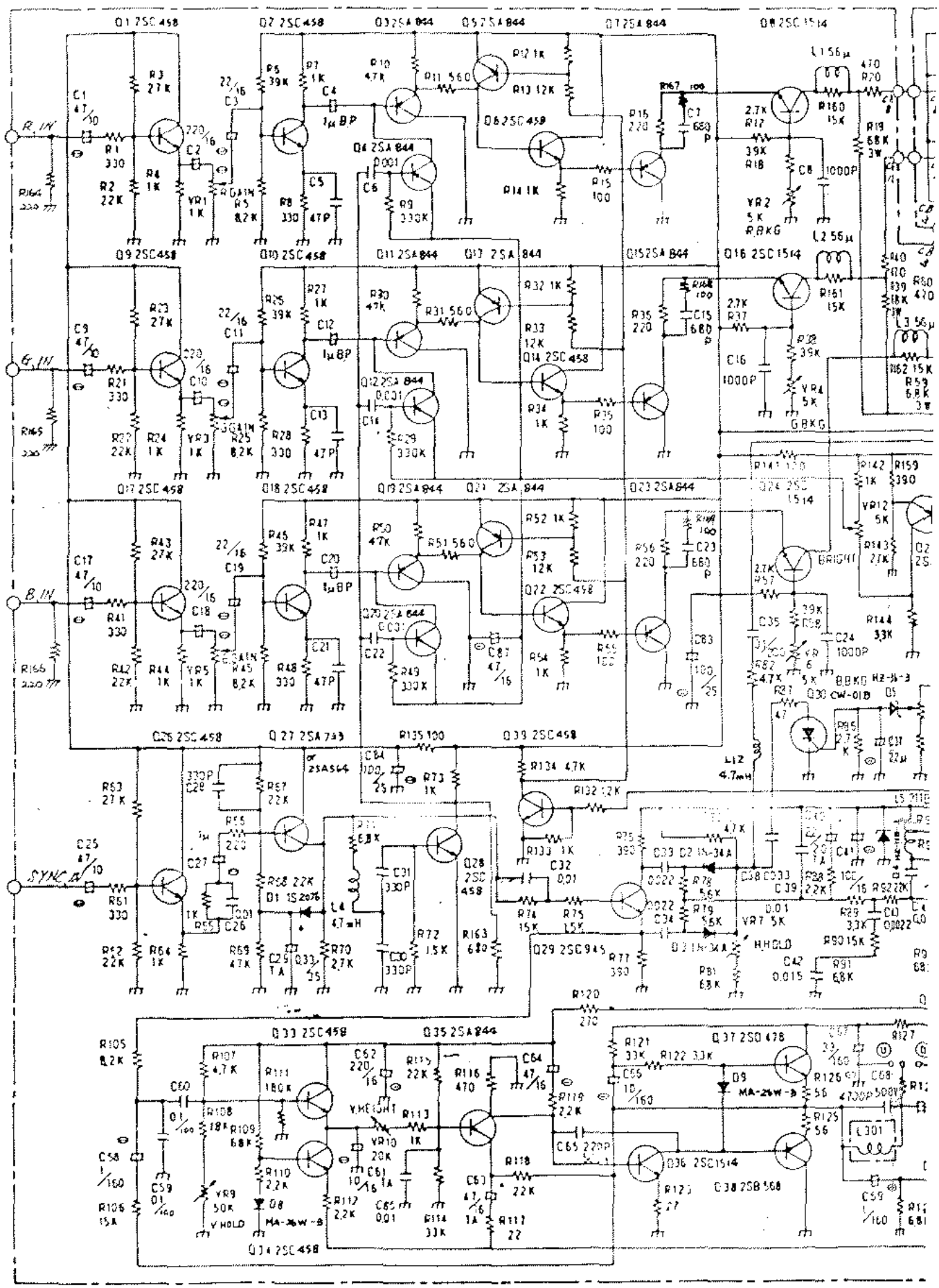
NO.	PARTS NO.	DESCRIPTION	UNIT PRICE (YEN)
90	PC50035	Kel Connector (44P)	950
97	BP10042	Connector	600
98	BP10043	Connector Bracket	450
99	MB20043	Counter Bracket	1,200
100	TA50035	Counter	2,600
101	PC50051	Fuse Holder	300
102	PC50052	Fuse (5A)	50
103	BP10041	Power SW.	380
109	AL20020	AL-10 P.C. Board	270,000
110	AL20021	P.C. Board Bracket (Horizontal Type)	1,500
	AL20022	P.C. Board Bracket (Vertical Type)	1,500
111	AL20023	Conversion P.C. Board (T)	2,500
112	AL20024	Conversion P.C. Board (U)	2,500
113	MB20033	MB-4 P.C. Board	40,000
114	MB20034	Guide Rail Support Bracket (Upper)	500
115	BP10035	Guide Rail	300
116	MB20036	Guide Rail Support Bracket (Lower)	480
117	MB20037	Amp. Connector (10P)	340
118	MB20038	Amp. Connector (18P)	550
119	MB20039	Amp. Connector (12P)	390
120	AL20025	AL-5 P.C. Board	3,000

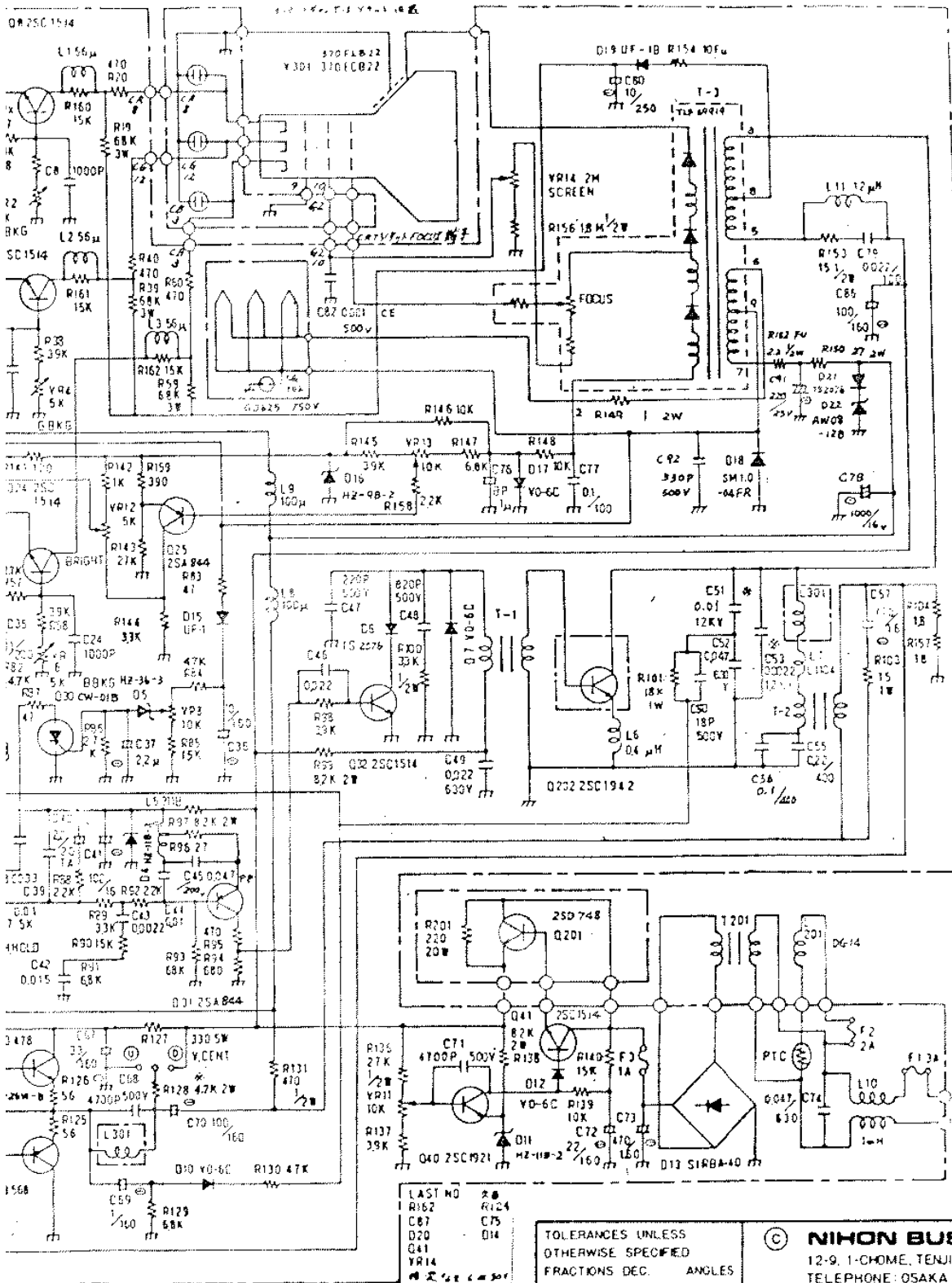
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CHECKED		SCALE	SIZE	DRAWING NO.
				SHEET



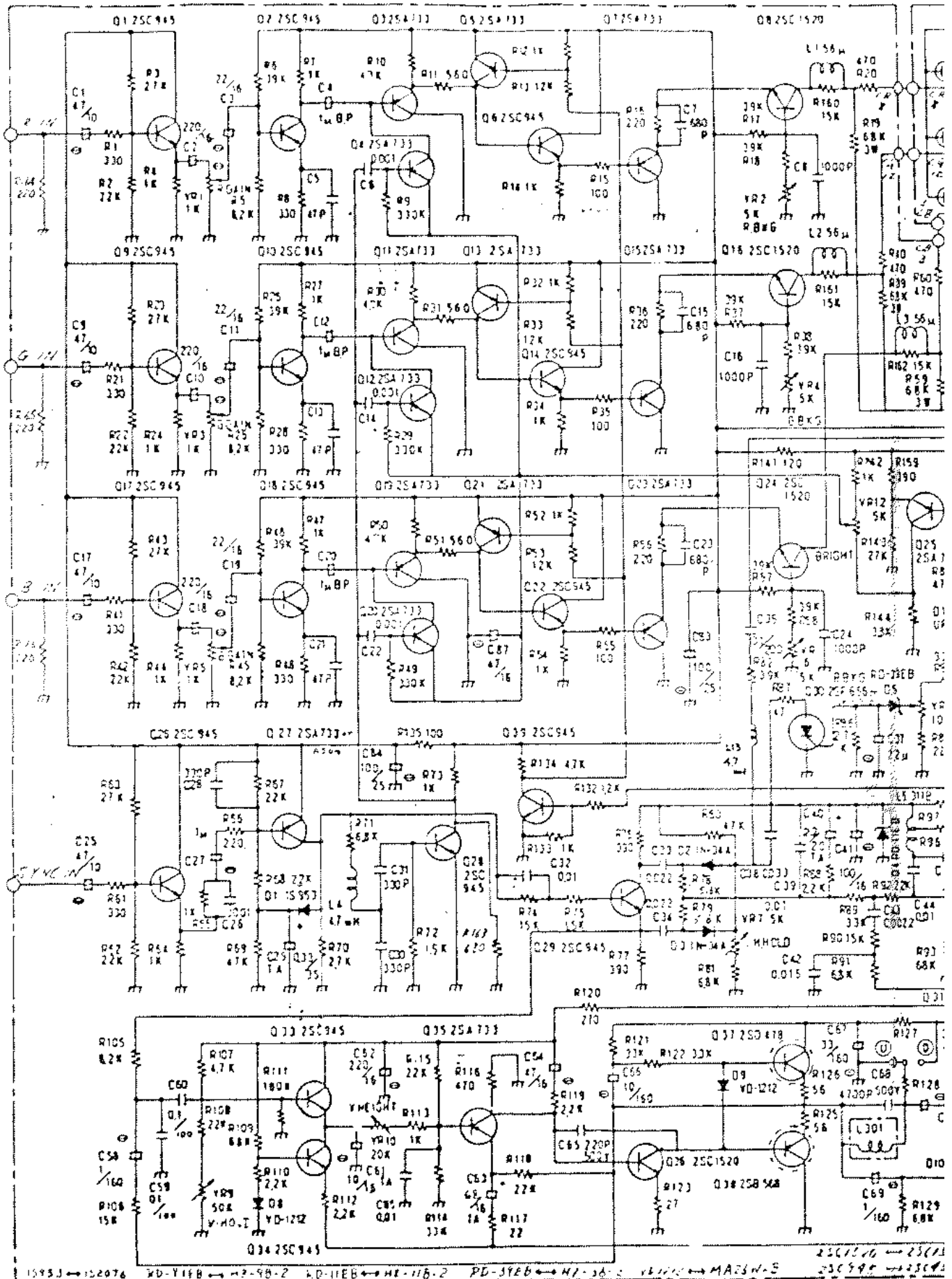


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C87	C75
D20	D14
Q41	
YR14	

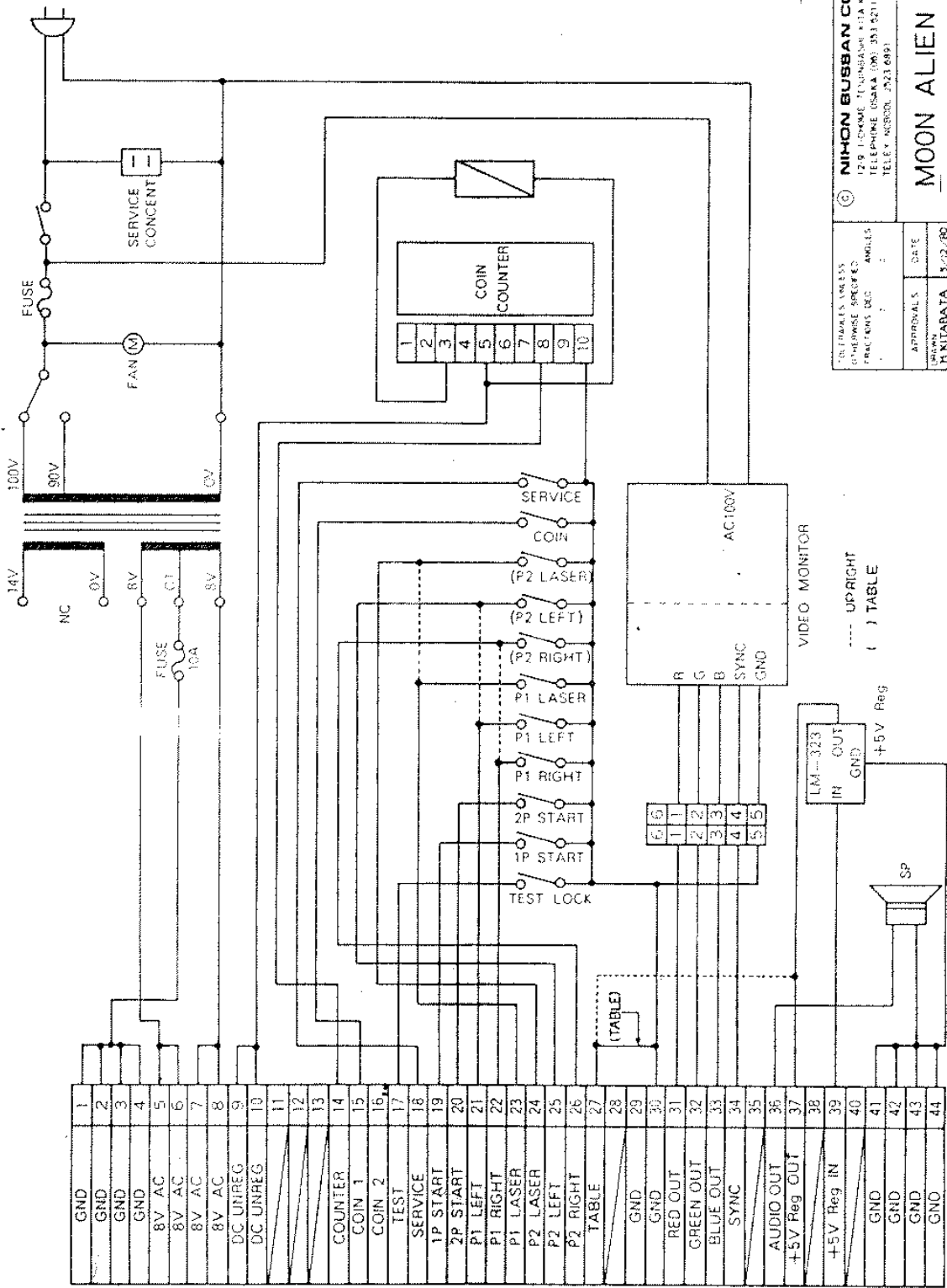
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				C-476
				SHEET

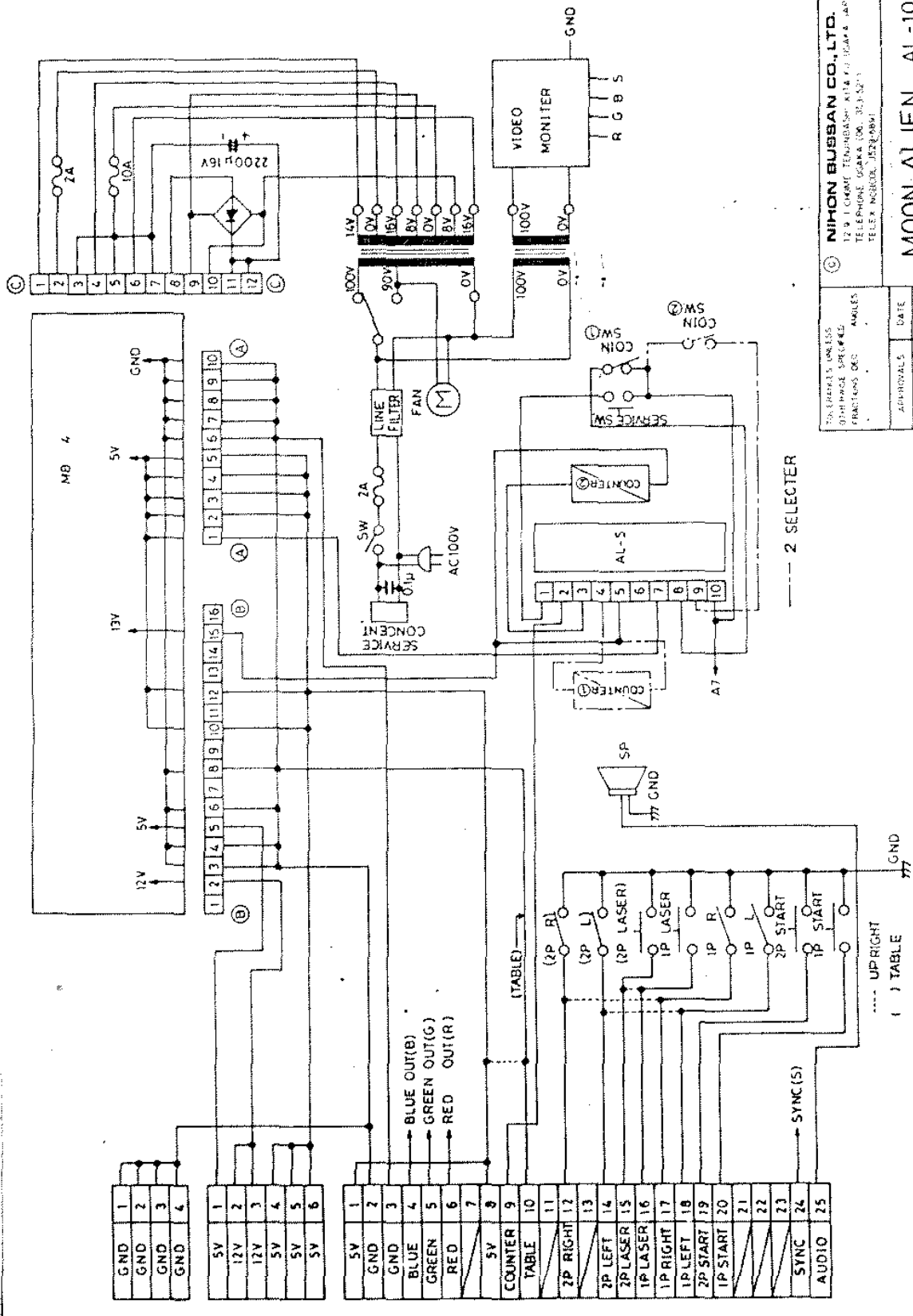


15933 → 152076 VD-Y1FB → H2-9B-2 QD-11EB → HE-11B-2 PD-5YEB → H2-3B-2 YD-1212 → MA23N-E
 23C1216 → 23C11 23C945 → 23C945



1	GND
2	GND
3	GND
4	GND
5	8V AC
6	8V AC
7	8V AC
8	8V AC
9	DC UNREG
10	DC UNREG
11	
12	
13	
14	COUNTER
15	COIN 1
16	COIN 2
17	TEST
18	SERVICE
19	1P START
20	2P START
21	P1 LEFT
22	P1 RIGHT
23	P1 LASER
24	P2 LASER
25	P2 LEFT
26	P2 RIGHT
27	TABLE
28	
29	GND
30	GND
31	RED OUT
32	GREEN OUT
33	BLUE OUT
34	SYNC
35	
36	AUDIO OUT
37	+5V Reg OUT
38	
39	+5V Reg IN
40	GND
41	GND
42	GND
43	GND
44	GND

TELEPHONE ADDRESS OTHERWISE SPECIFIED TELEPHONE NO.		DATE 3/22/80	
APPROVALS M. MATSUDA		SCALE DRAWING NO.	
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SHEET		SIZE	



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APPROVALS: MORII DATE: 25/2/80
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MOON ALIEN AL-10

--- 2-SELECTOR

--- UPRIGHT
 () TABLE



