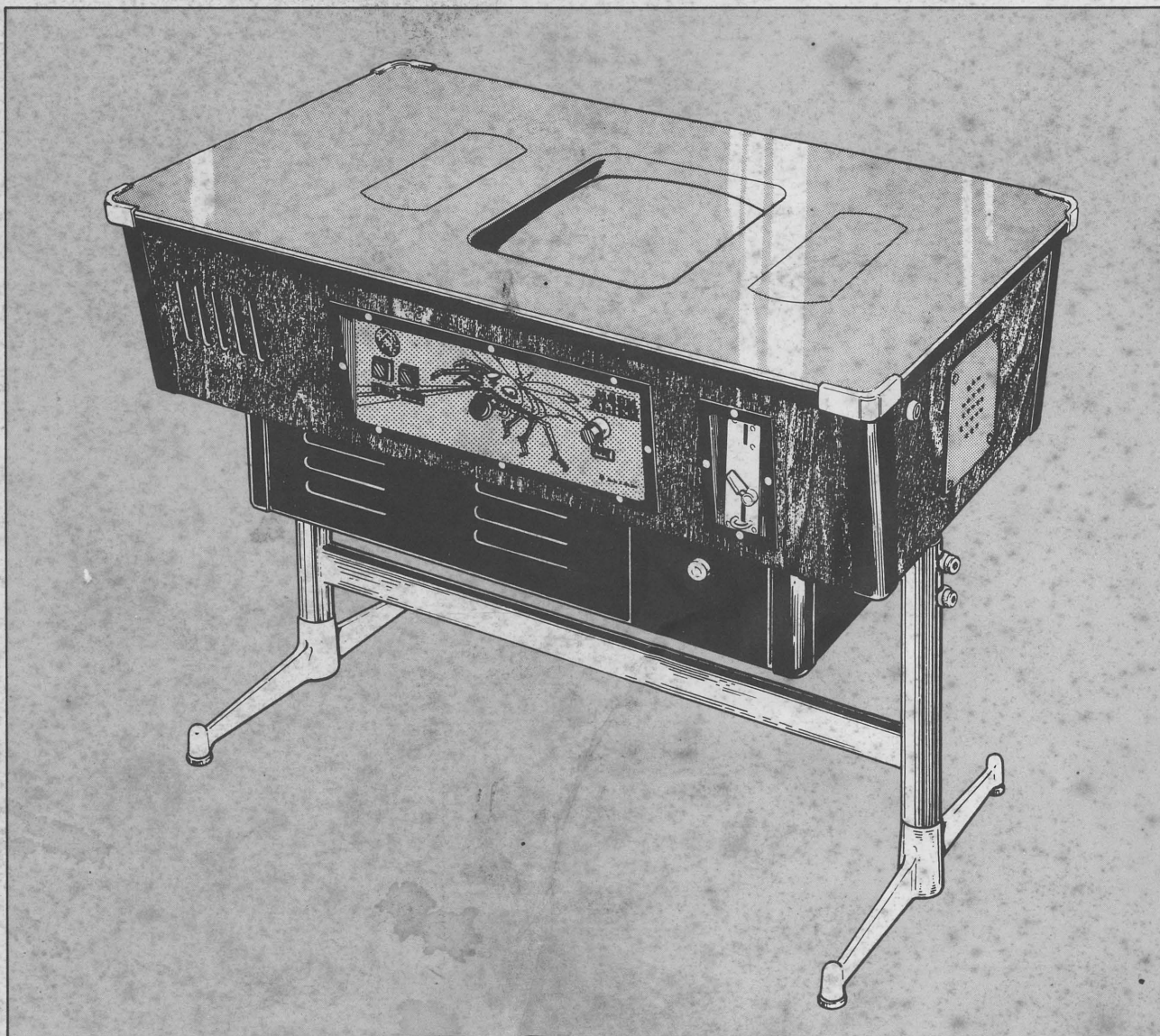


PART-II MOON ALIEN

SERVICE INSTRUCTION



Nichibutsu

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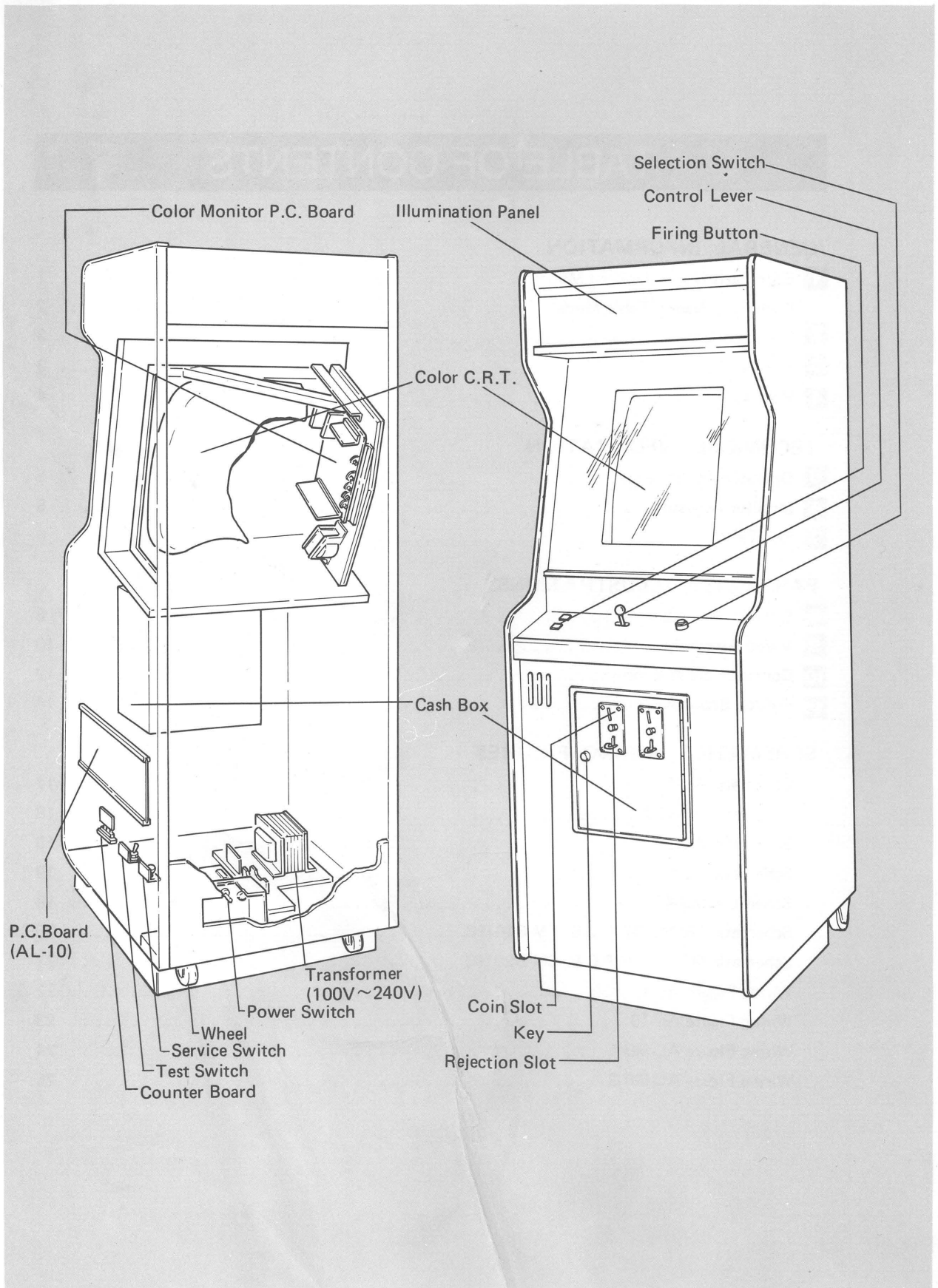
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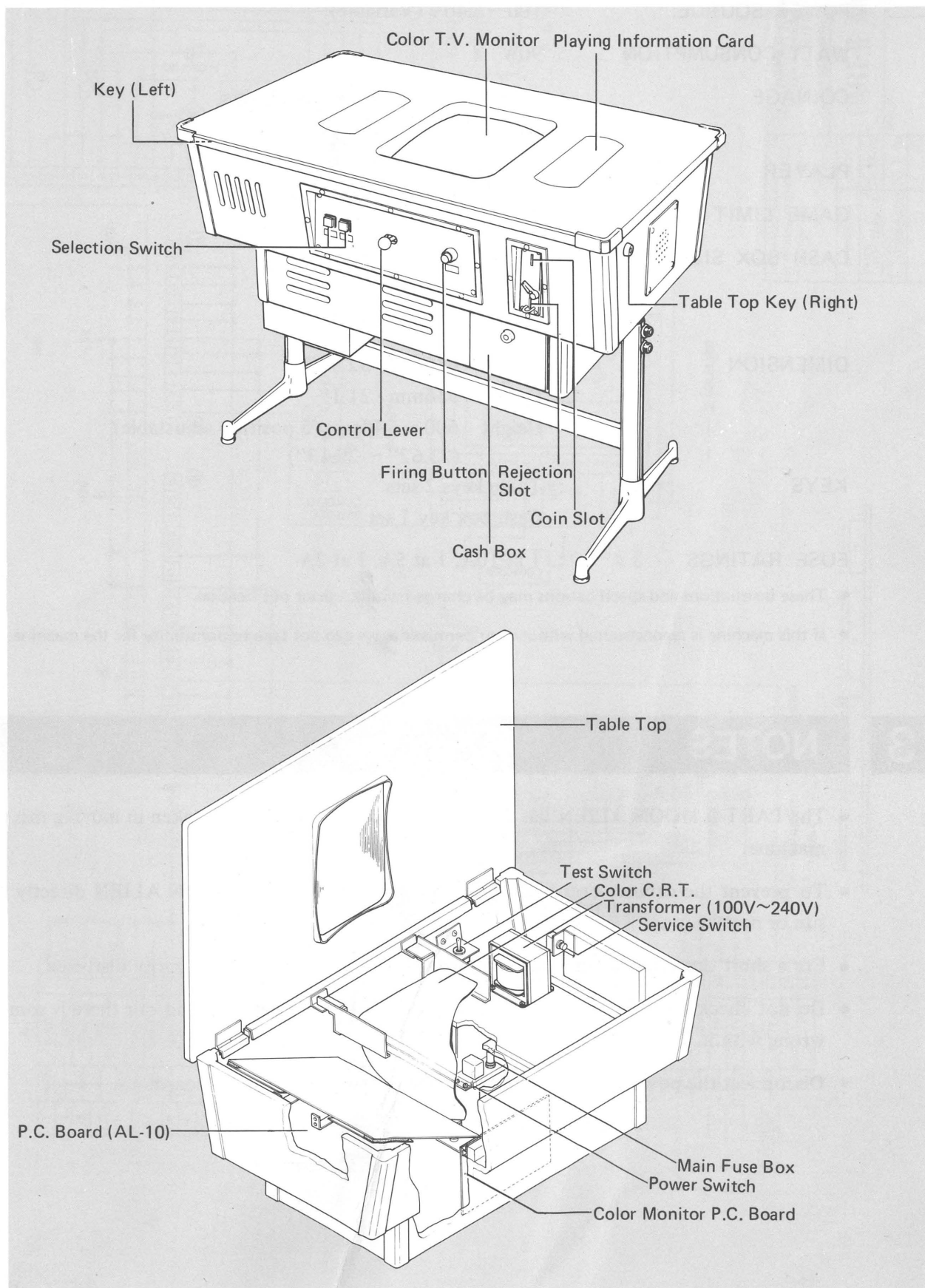
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1 EACH PARTS NAME (UPRIGHT MODEL)



PART-II MOON ALIEN

EACH PARTS NAME (TABLE MODEL)



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 · 5.39" Height 140mm · 5.51" Depth 240mm · 9.45"
DIMENSION	:	Width 836mm · 32.91" Depth 536mm · 21.1" Height 600 ~ 740mm (5 position adjustable) (23.62" ~ 29.13")
KEYS	:	Table keys 2 sets Cash box key 1 set
FUSE RATINGS	:	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.

3 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 PART-II 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.

PART-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
1st player to the left.
2nd player to the right.
The maximum score is 999,990 points.

★ High Score
The maximum score that has been reached is constantly visible.

★ Extra Nostromo
When the nostromo in play is destroyed, the additional nostromo will come into operation.

★ Credit Number
Indicating the number of coins in credit in the machine. (Coin stock: up to 99)

★ Alien Ship
If the ship is hit while attacking, high score will be registered.

★ Alien
Each alien has a different score according to it's color.

★ Alien attack
The alien is separated from the convoy and is bombing alone.

★ Nostromo
Nostromo attacks the aliens by firing missiles from it.

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

★ Clearance Number
A flag appears as one pattern of attacking aliens is cleared. After the clearances the big flag will appear.

SCORE

	Alien Ship	Red Alien	Violet Alien	Green Alien
ALIEN SHIP and ALIEN				
CONVOY	60 Points	50 Points	40 Points	30 Points
ATTACK	? Points	100 Points	80 Points	60 Points

Double Score	150 Points	200 Points	300 Points	800 Points
1) A double score will be registered when attacking alien is shot down.	2) For shooting down an alien ship without a guard.	3) For shooting down an alien ship with one guard.	4) For shooting down an alien ship with two guards.	5) Gained by first shooting down the two guards and then destroying alien ship.

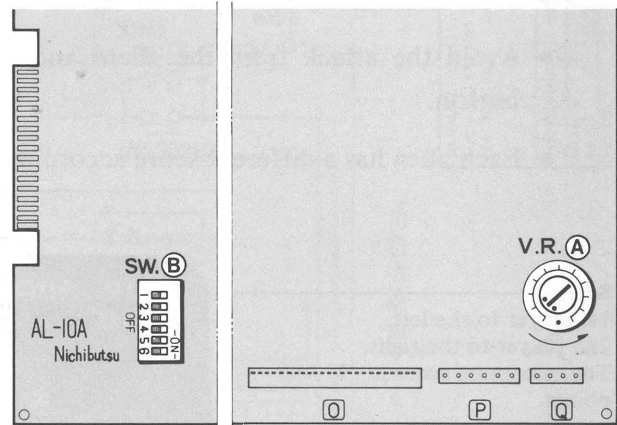
5 OPERATER ADJUSTMENTS

- **V.R. (A)**

V.R. 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					<u>OFF</u>	
5					ON	



Note: ● Switch adjustment have to be done after disconnect the power supply.

● Switches are set as under-lined 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.

6 MONITOR ADJUSTMENTS

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

- **H. HOLD:**

Adjustment for keeping the picture horizontally.

- **V. HEIGHT:**

Adjustment for vertical height.

- **V. HOLD:**

Adjustment for keeping the picture vertically.

- **BLUE BKG RED BKG GREEN BKG:**

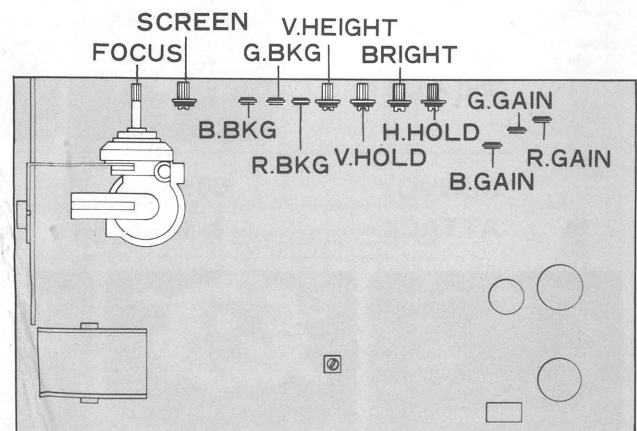
Adjustment for white balance in bright picture.

- **BLUE, GREEN, RED, GAIN:**

Adjustment for white balance in dark picture.

- **FOCUS:**

Adjustment for focus on picture.



PART-II MOON ALIEN

7 SELF TEST

AUTOMATIC SELF TEST

PART-II 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" will appear.

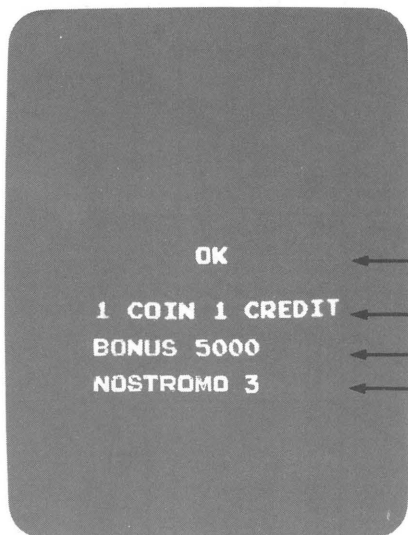
SELF TEST BY USING THE TEST SWITCH

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 RAM TEST
"OK" signs normal.
Numbers signs FAULT.
- ② COINAGE
- ③ BONUS POINTS.
- ④ NUMBERS OF NOSTROMO.

2 ~ 4 is variable by switch "B" (Ref. Page 5)

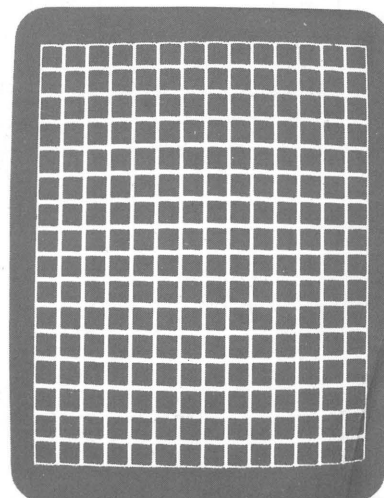
SWITCH TEST

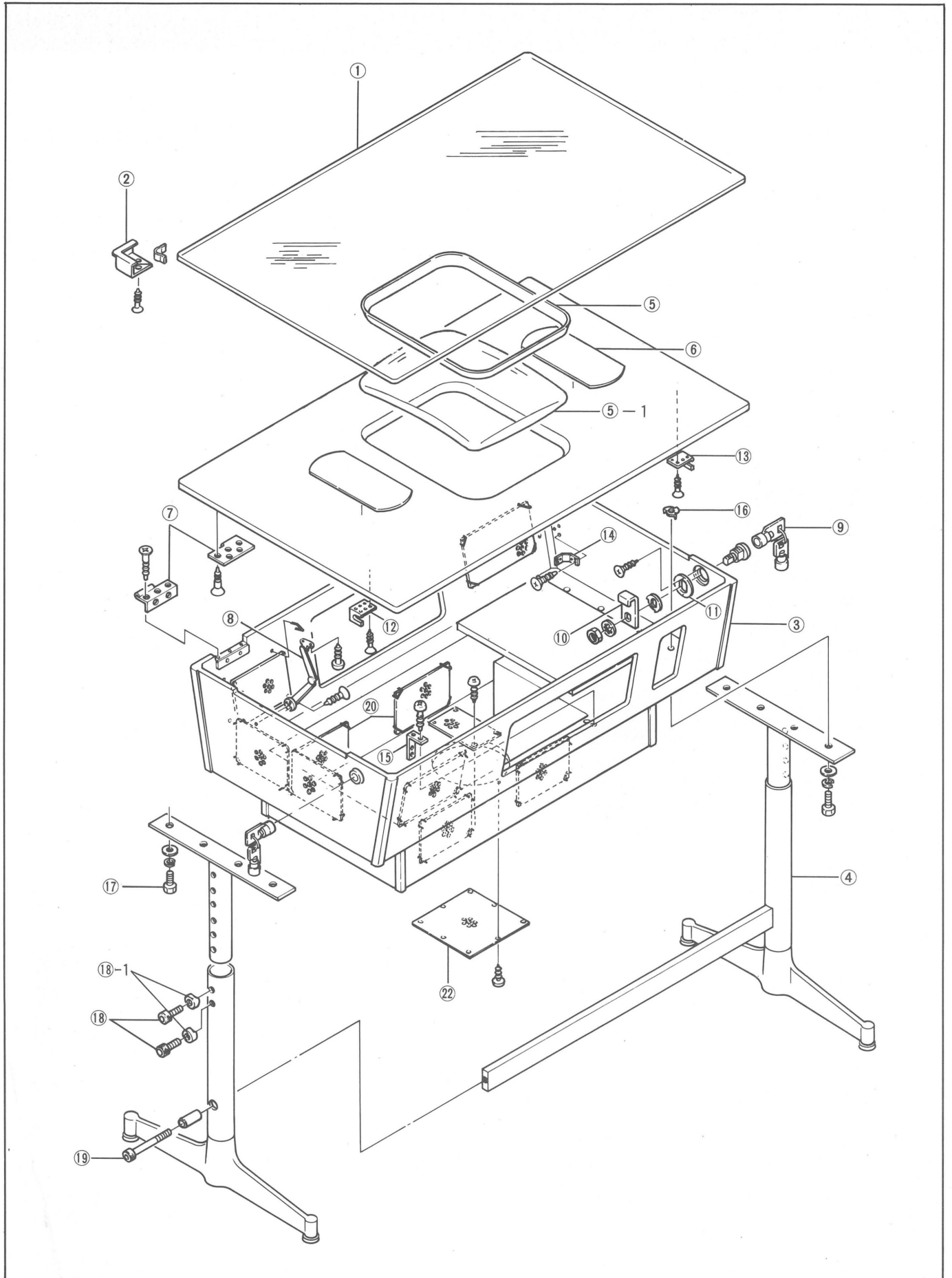
It is in normal condition that it sounds when pressing the firing button, start button (for 1 or 2), and coin switch.

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".





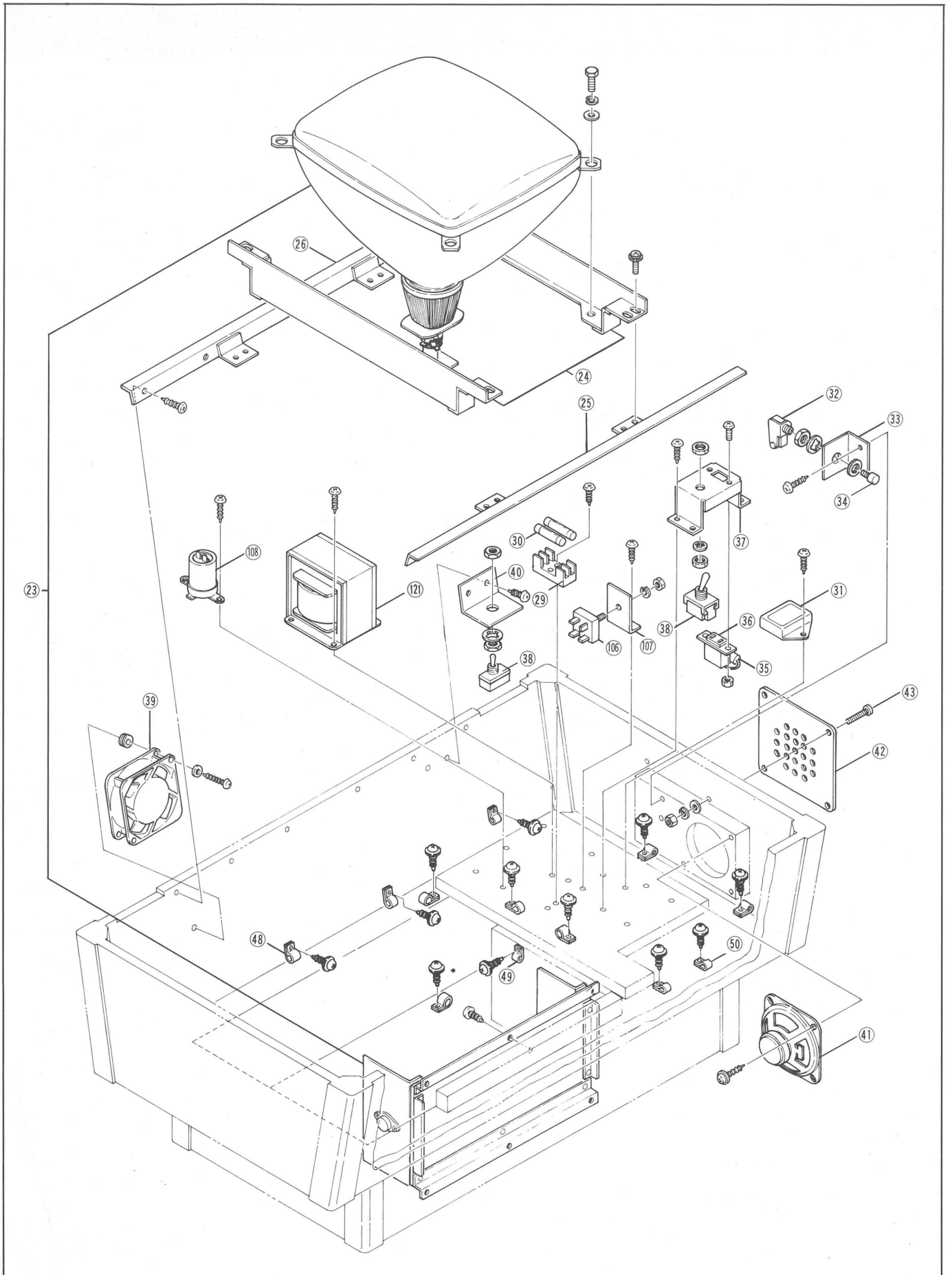
PART-II MOON ALIEN

8

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 Lobk 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	600

* EX-Godown our office in Japanese YEN.



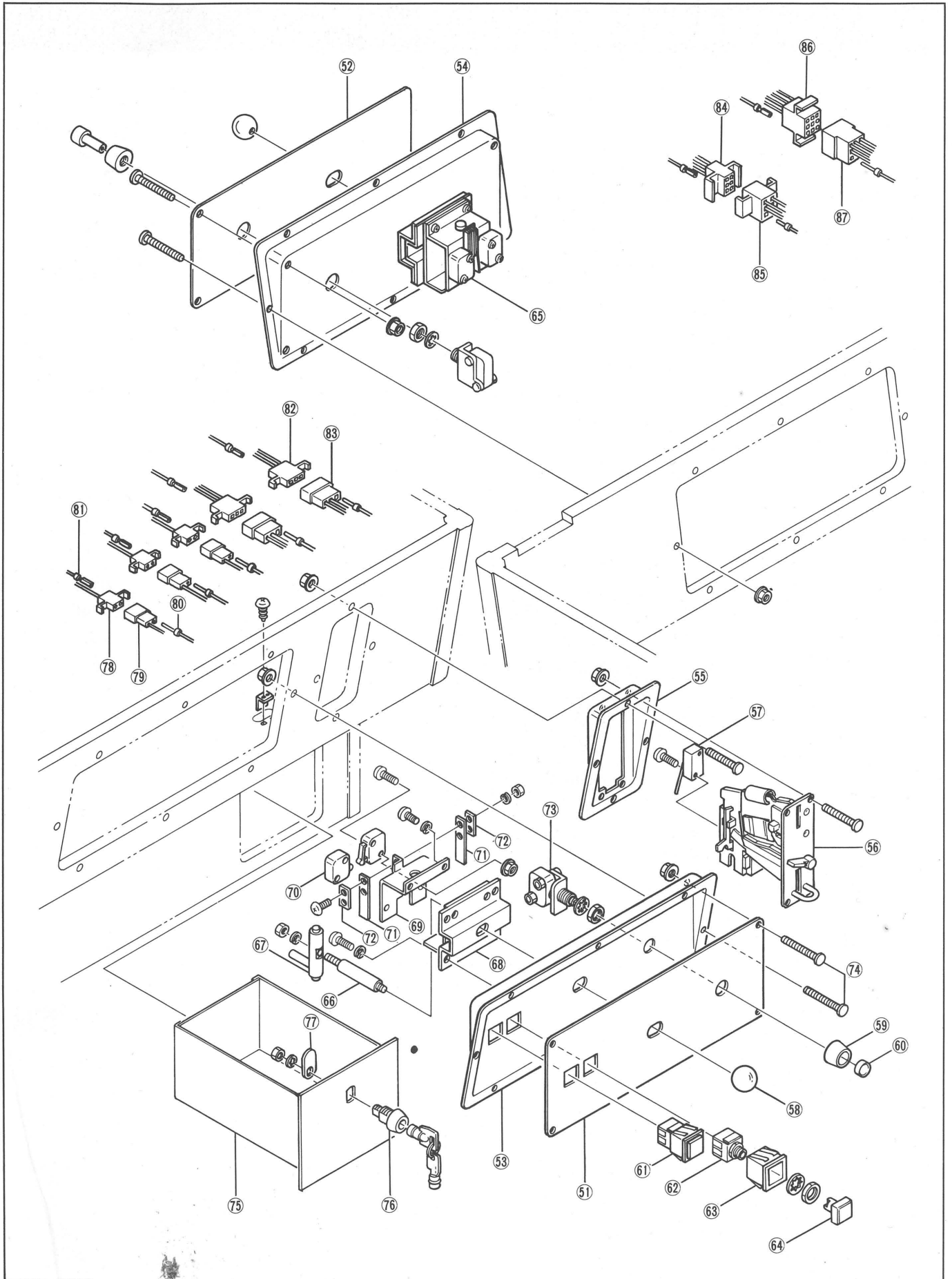
PART-II MOON ALIEN

9

VIDEO ASSEMBLY

NO.	PARTS NO.	DESCRIPTION	UNIT PRICE (YEN)
23	AL20004	Color MONITOR Assy.	129,000
24	MB20004	C.R.T. Metal Bracket (Right, Left)	2,100
25	MB20005	C.R.T. Support Bracket (Front)	1,500
26	MB20006	C.R.T. 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

* EX-Godown our office in Japanese YEN.



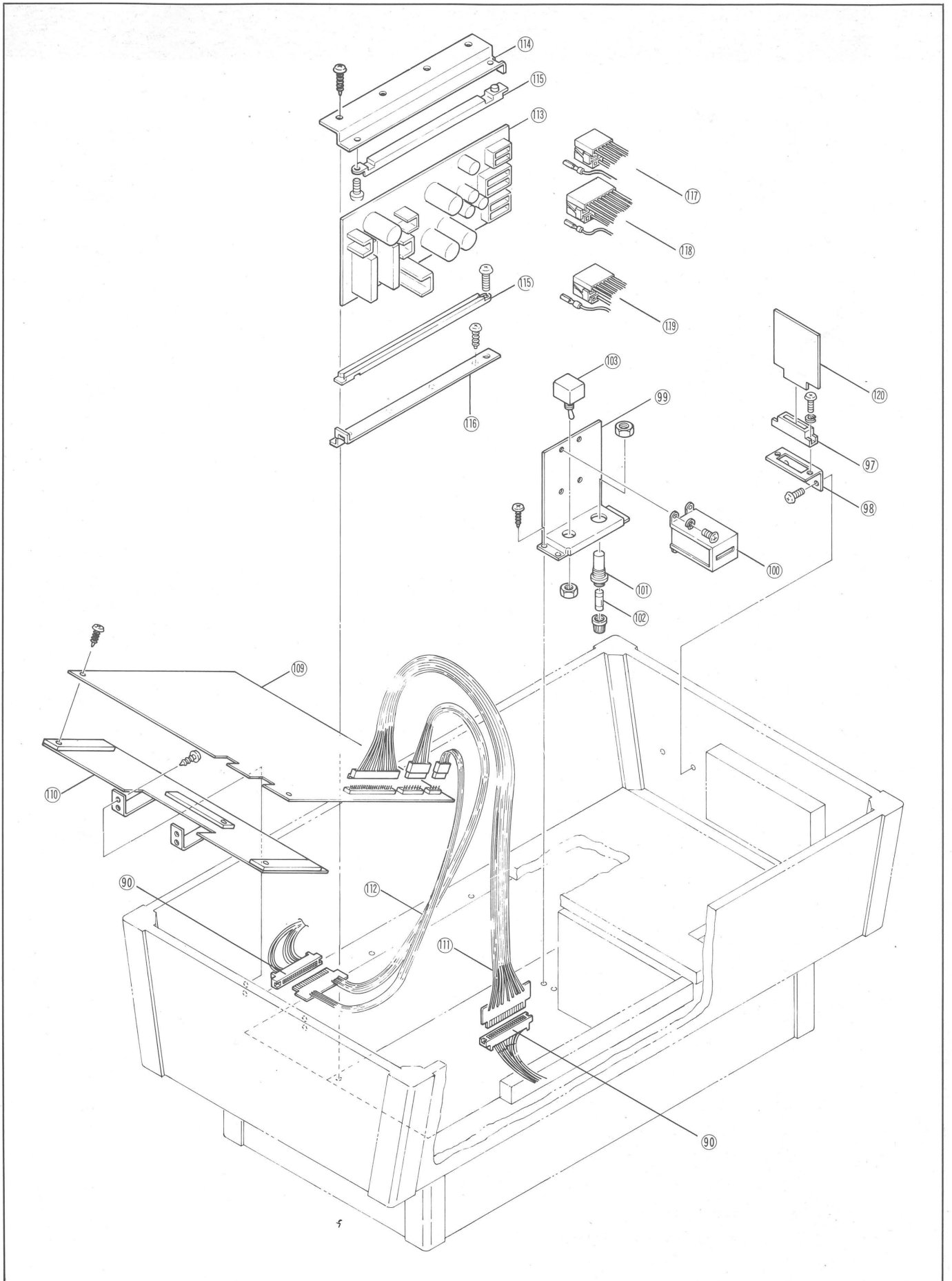
PART-II MOON ALIEN

10

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	RC-10008B	Cash Box	4,500
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	TA50039	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

* EX-Godown our office in Japanese YEN.



PART-II MOON ALIEN

11**PRINTED BOARD ASSEMBLY**

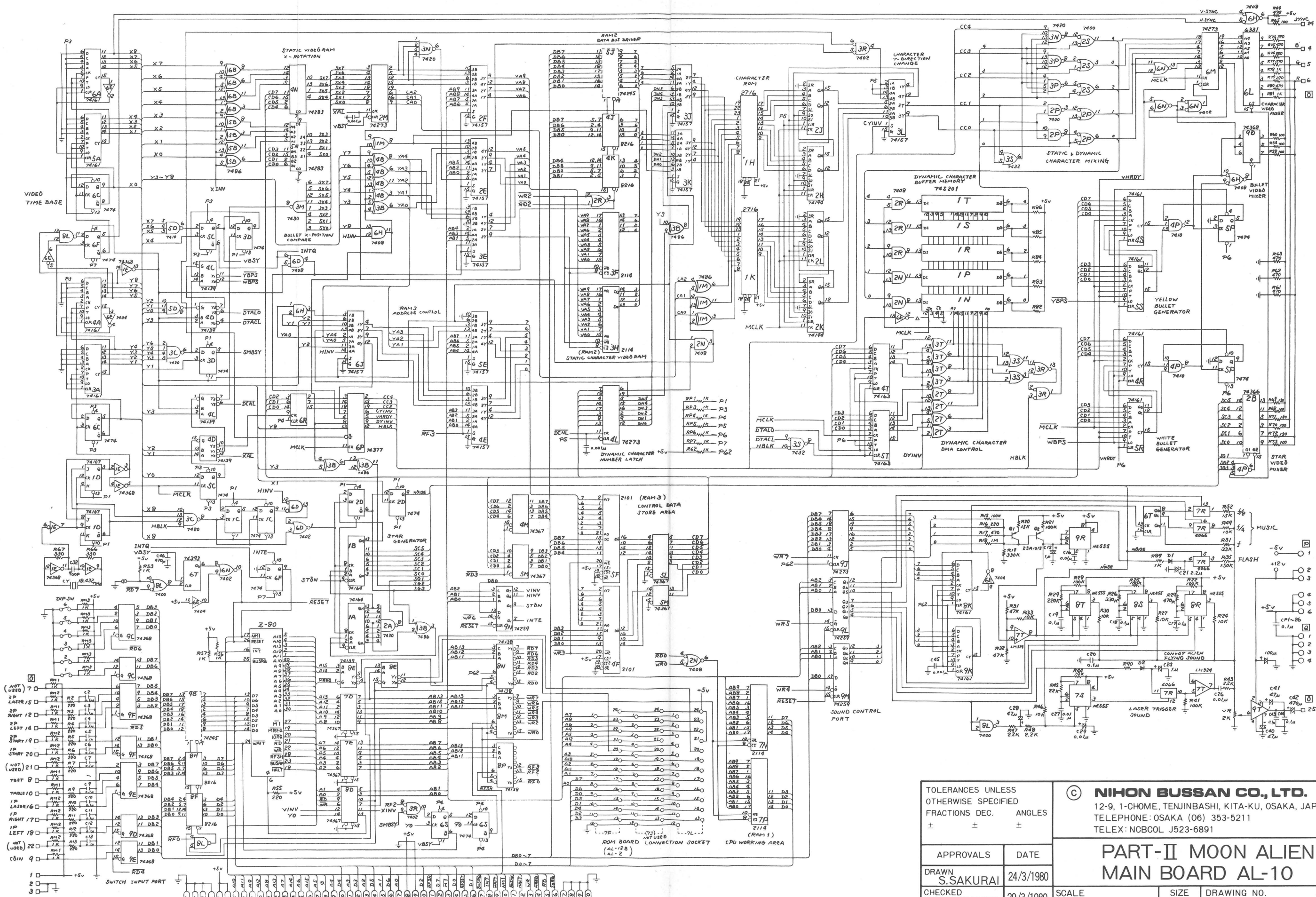
NO.	PARTS NO.	DESCRIPTION	UNIT PRICE (YEN)
90	PC50035	Kel Connector (44P)	950
97	BP10042	Connector (10P)	600
98	BP10043	Connector Bracket	450
99	MB20043	Counter Bracket	1,200
100	TA50035	Counter	2,600
101	PC50051	Fuse Holder	300
102	PC50052	Fuse (5A)	50
103	BP10041	Power SW.	380
109	AL20020	AL-10 P.C. 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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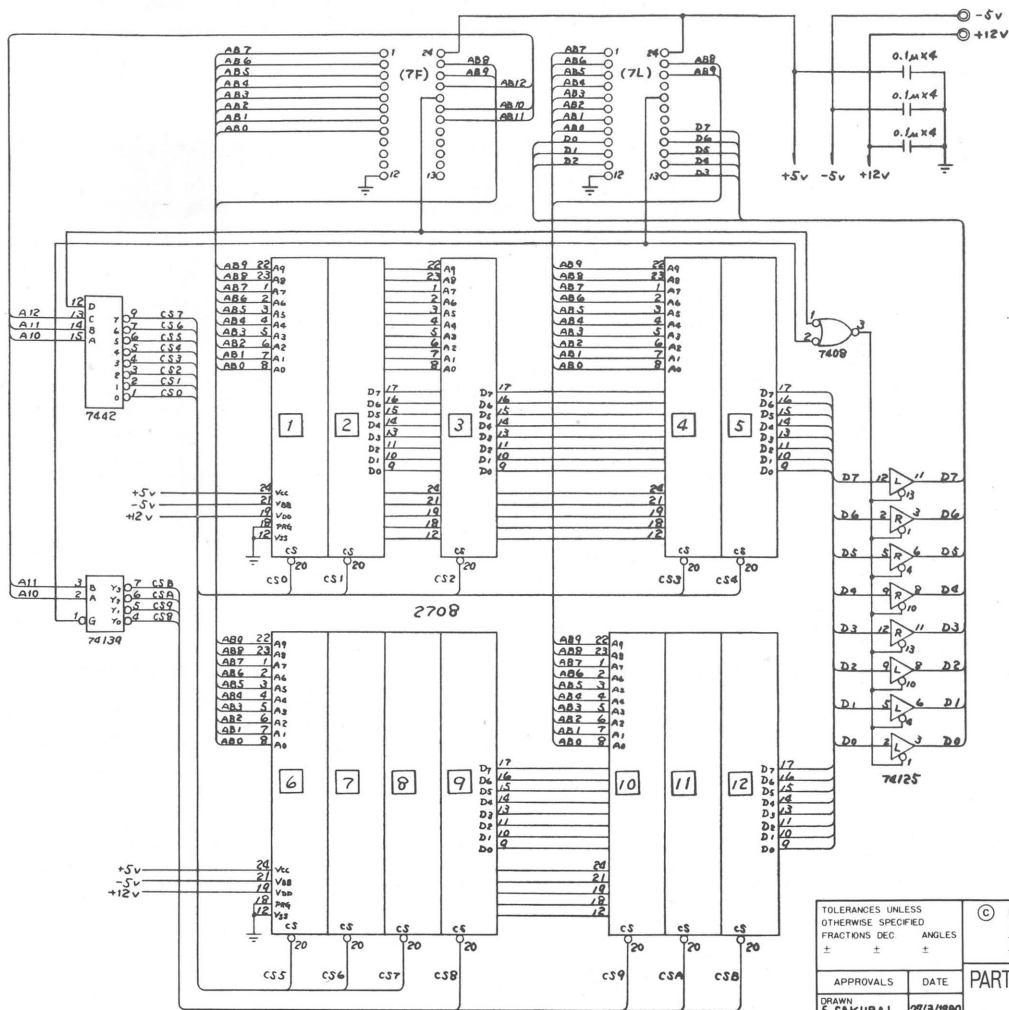
1

SCHEMATICS

WIRING FIGURES



TOLERANCES UNLESS OTHERWISE SPECIFIED		ANGLES		NIHON BUSSAN CO., LTD. 12-9, 1-CHOME, TENJINBASHI, KITA-KU, OSAKA, JAPAN TELEPHONE: OSAKA (06) 353-5211 TELEX: NBCCOL J523-6891	
FRACTIONS DEC.		± ± ±			
APPROVALS	DATE	PART-II MOON ALIEN MAIN BOARD AL-10		SCALE	DRAWING NO.
DRAWN	24/3/1980			SIZE	
CHECKED	29/3/1980			SHEET	



TOLERANCES UNLESS OTHERWISE SPECIFIED
 FRACTIONS DEC ANGLES
 ± ± ±

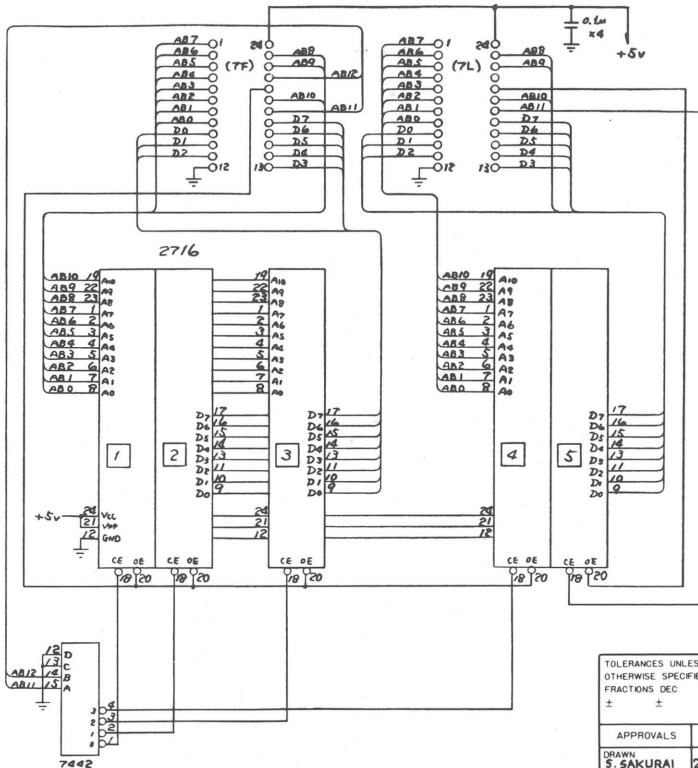
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 TELEX: NCB00L J523-6891

PART-II MOON ALIEN PROM SUB BOARD AL-12B

APPROVALS	DATE
DRAWN S. SAKURAI	27/3/1980
CHECKED H. KITABATA	29/3/1980

SCALE	SIZE	DRAWING NO.

SHEET



TOLERANCES UNLESS OTHERWISE SPECIFIED
 FRACTIONS DEC ANGLES
 ± ± ±

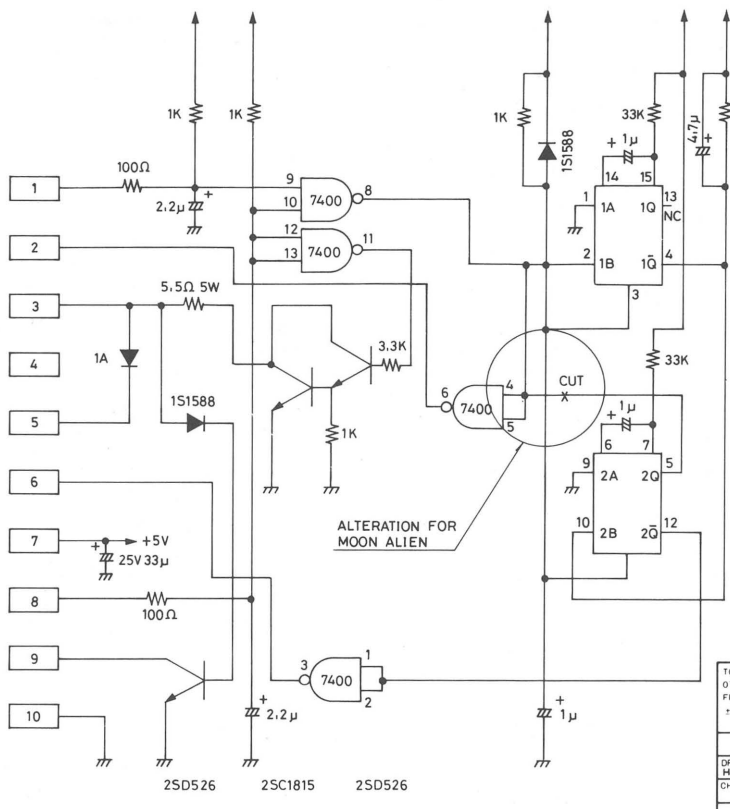
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PART-II MOON ALIEN PROM SUB BOARD AL-2

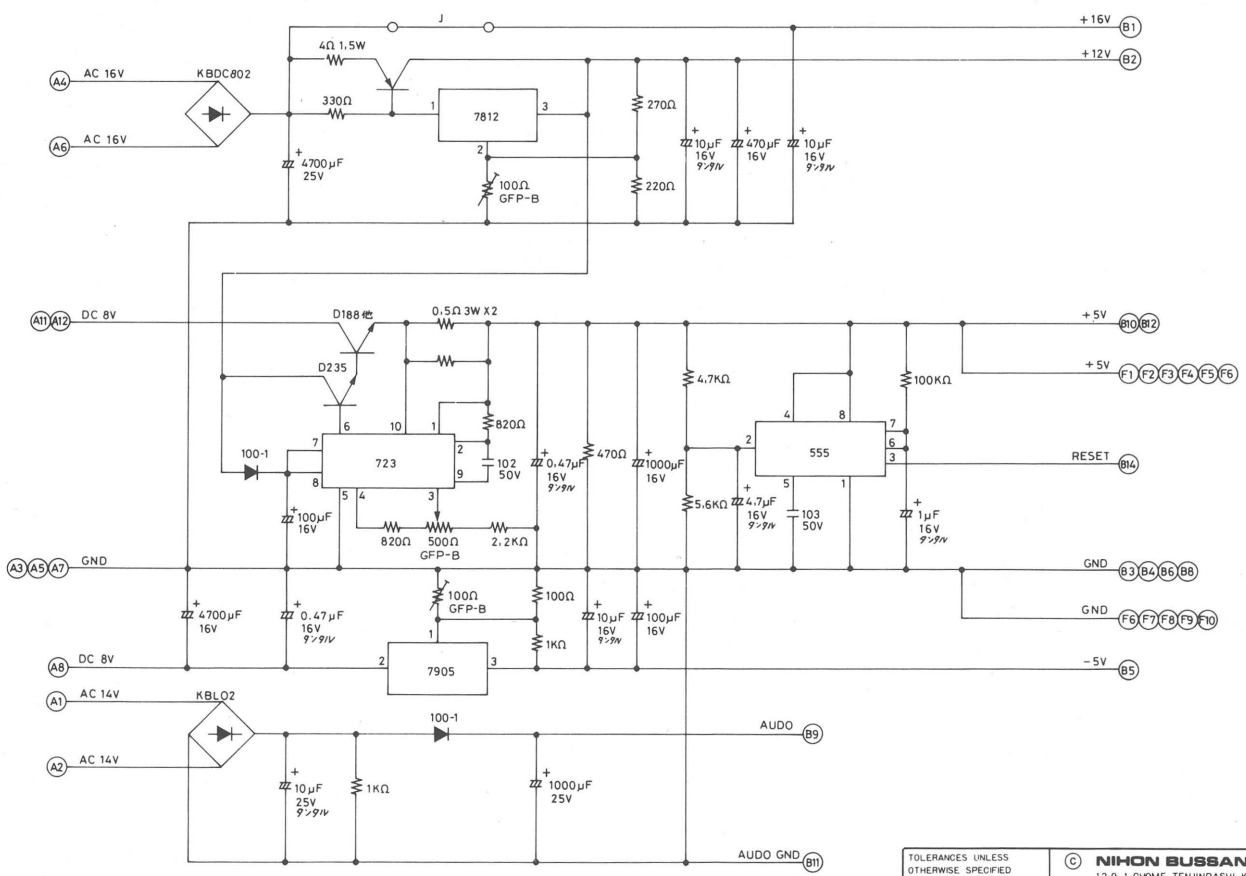
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DRAWN S. SAKURAI	27/3/1980
CHECKED H. KITABATA	29/3/1980

SCALE	SIZE	DRAWING NO.

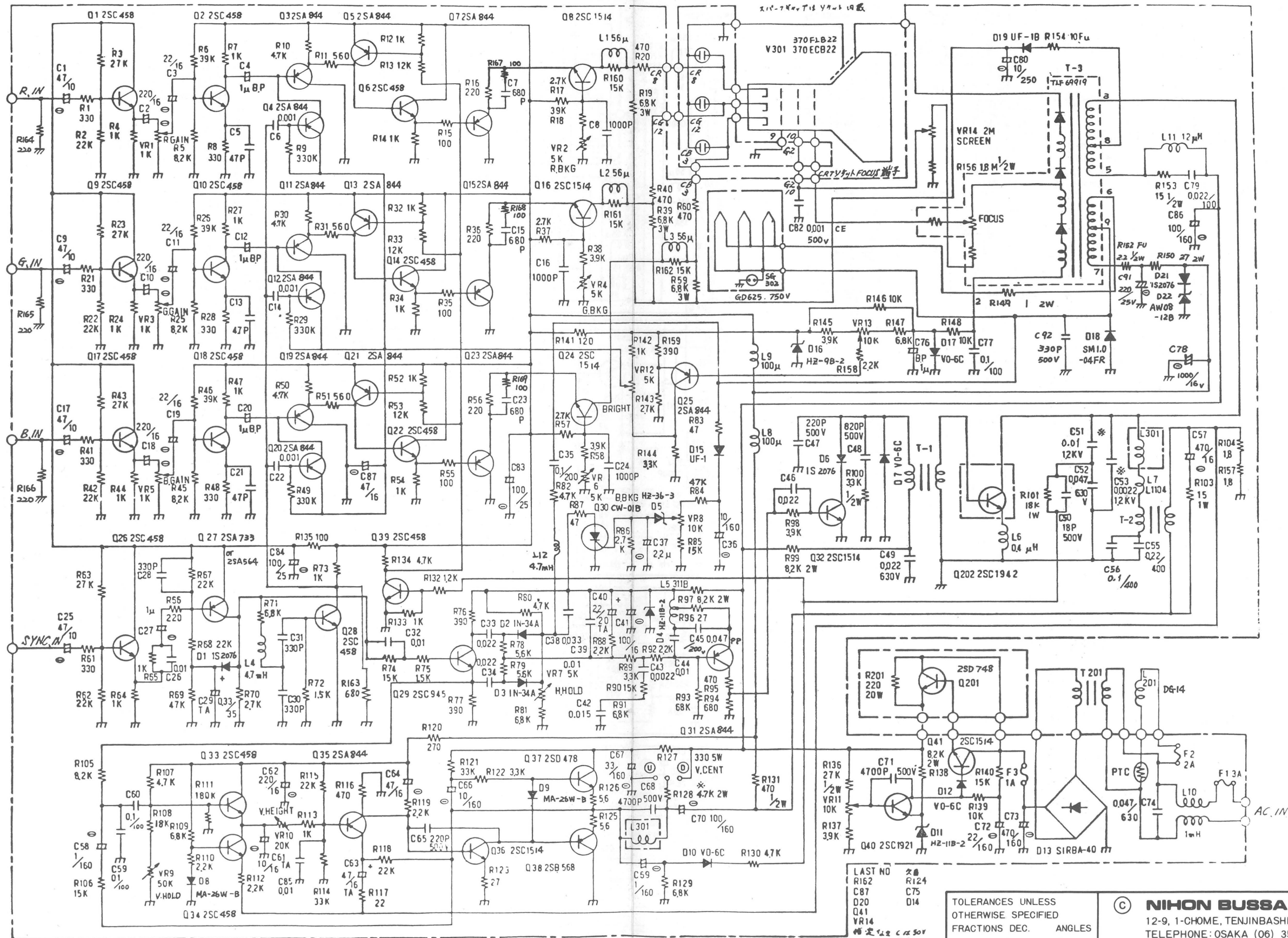
SHEET



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APPROVALS	DATE	COIN COUNTER (MOON ALIEN) AL-5		
DRAWN				
CHECKED				
		SCALE	SIZE	DRAWING NO.
				SHEET



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APPROVALS	DATE	POWER SUPPLY MB-4C		
DRAWN				
CHECKED				
		SCALE	SIZE	DRAWING NO.
				SHEET



LAST NO
R162
C87
D20
Q41
VR14

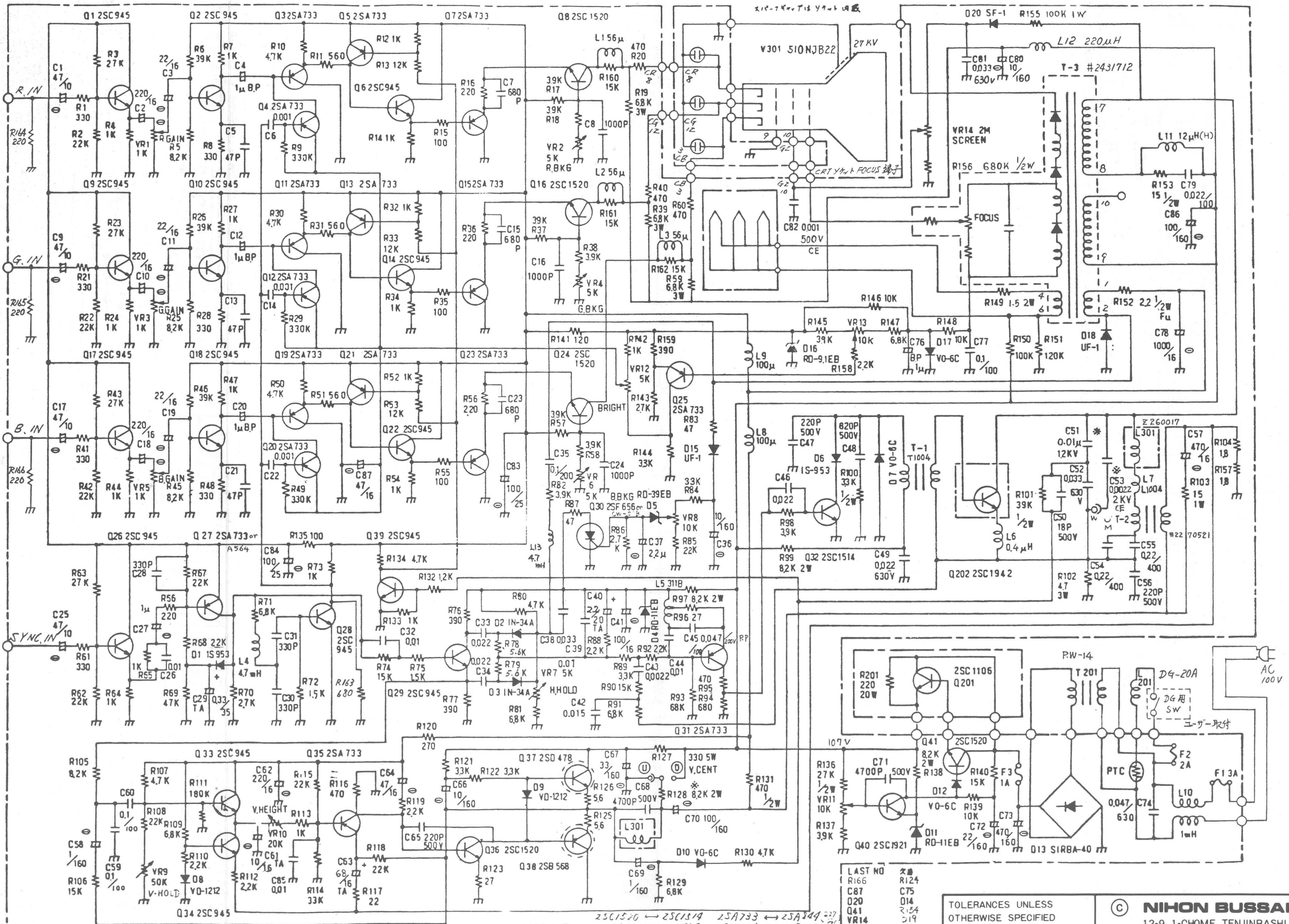
文
R124
C75
D14

TOLERANCES UNLESS OTHERWISE SPECIFIED
FRACTIONS DEC. ANGLES
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APPROVALS	DATE
DRAWN MIKAMI	13/3/80
CHECKED H.KITABATA	19/4/80

TOEI COLOR MONITOR CM-C14 HC	
SCALE	SIZE
DRAWING NO. C-476	
SHEET	



IS953 → IS2076 RD-91EB → HZ-9B-2 RD-11EB → HZ-11B-2 RD-39EB → HZ-36-3 VL121C → MA25W-B 25C1520 → 25C1519 25A733 → 25A744 25C995 → 25C958 25C1106 → 25D748

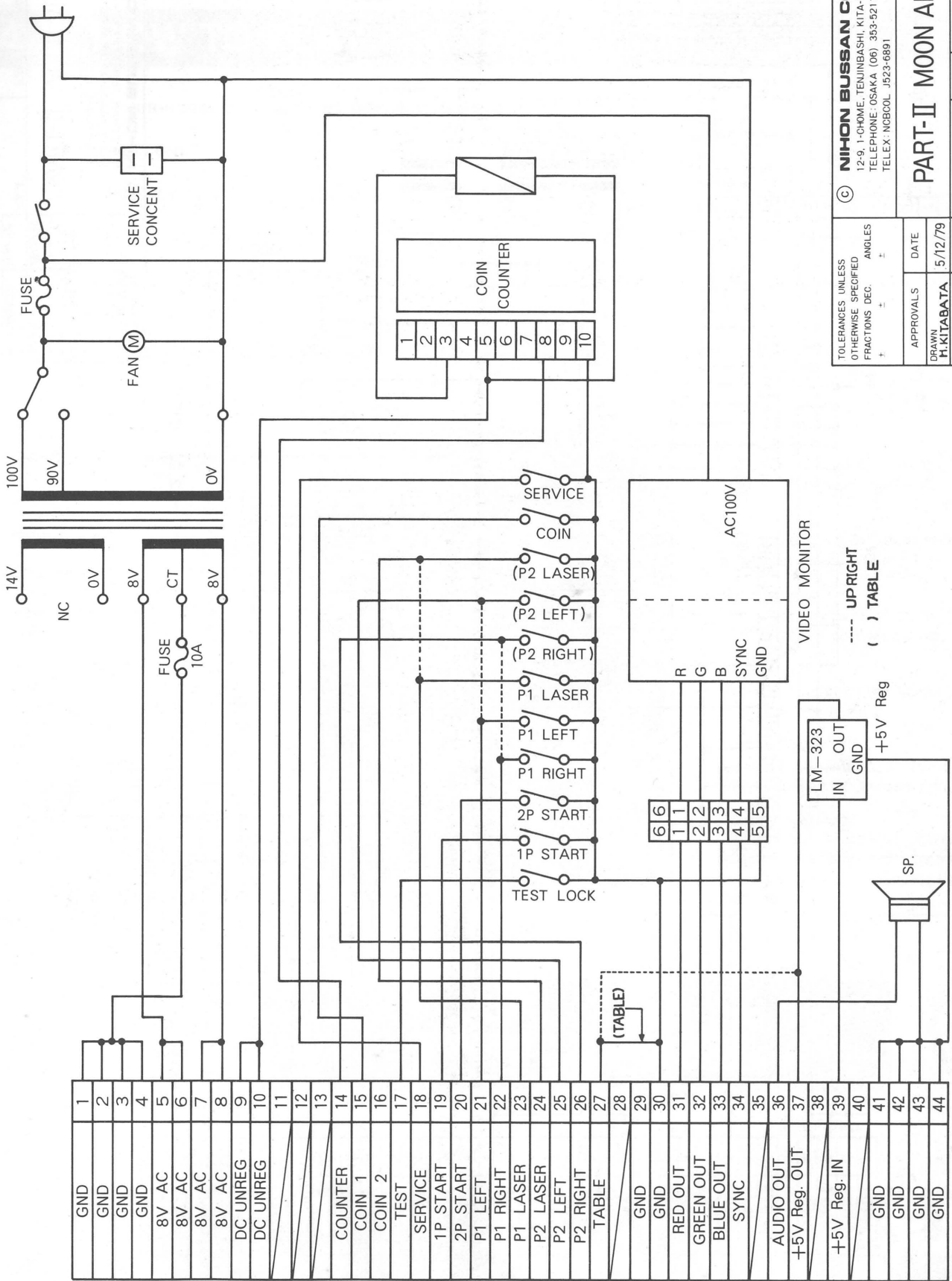
LAST NO
R166
C87
Q20
Q41
VR14
幅定電圧
R124
C75
D14
C154
D19
幅定電圧
C 50V
R 1/2W

TOLERANCES UNLESS OTHERWISE SPECIFIED
FRACTIONS DEC. ANGLES
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APPROVALS	DATE
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CHECKED H.KITABATA	19/4/80

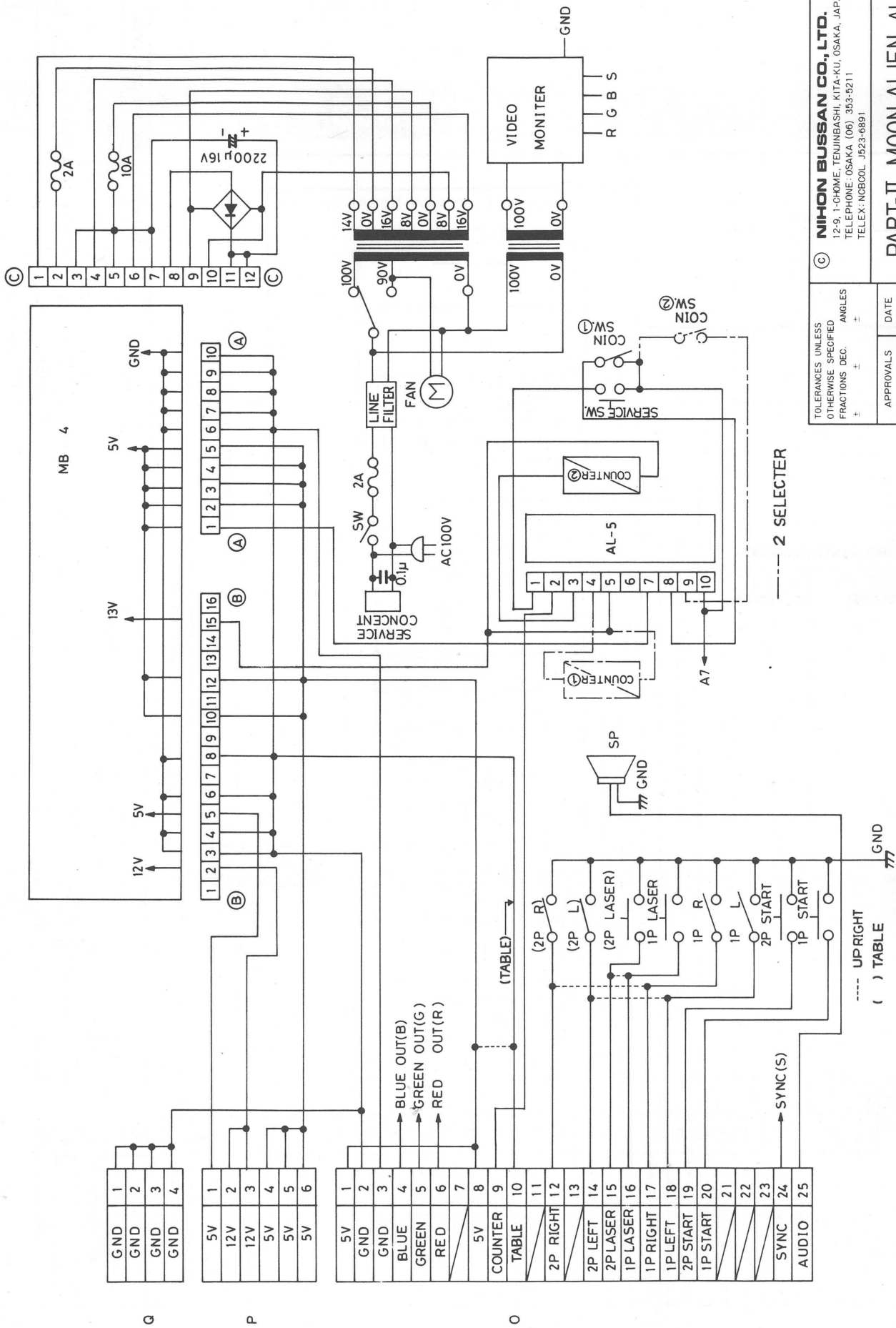
TOEI COLOR MONITOR CM-A20 HC	
SCALE	SIZE
DRAWING NO. C-487	
SHEET	



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APPROVALS	CHECKED	SCALE
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DRAWING NO.		
SIZE		
DRAWING NO.		
SHEET		

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PART-II MOON ALIEN AL-1



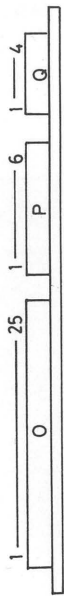
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TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES

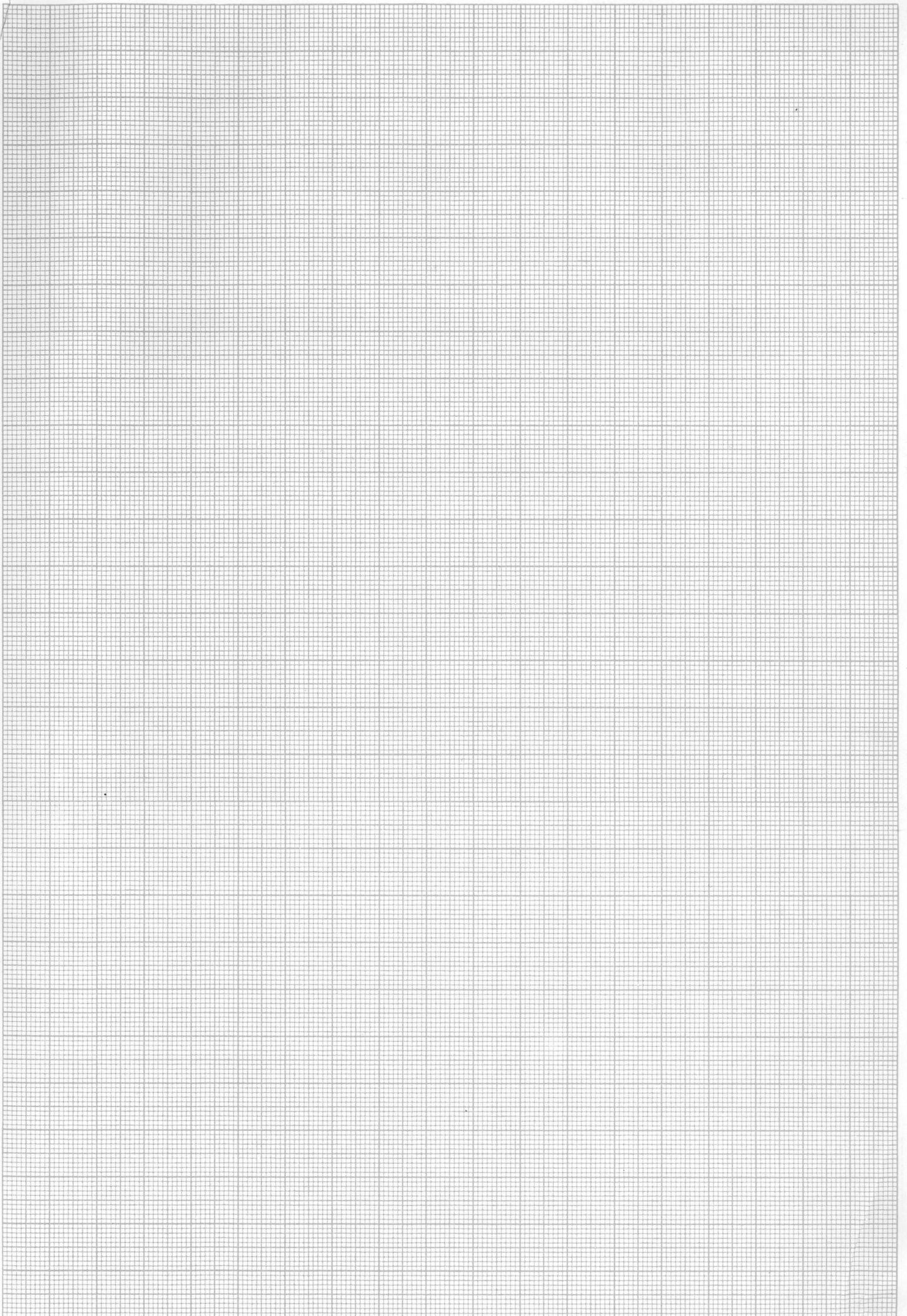
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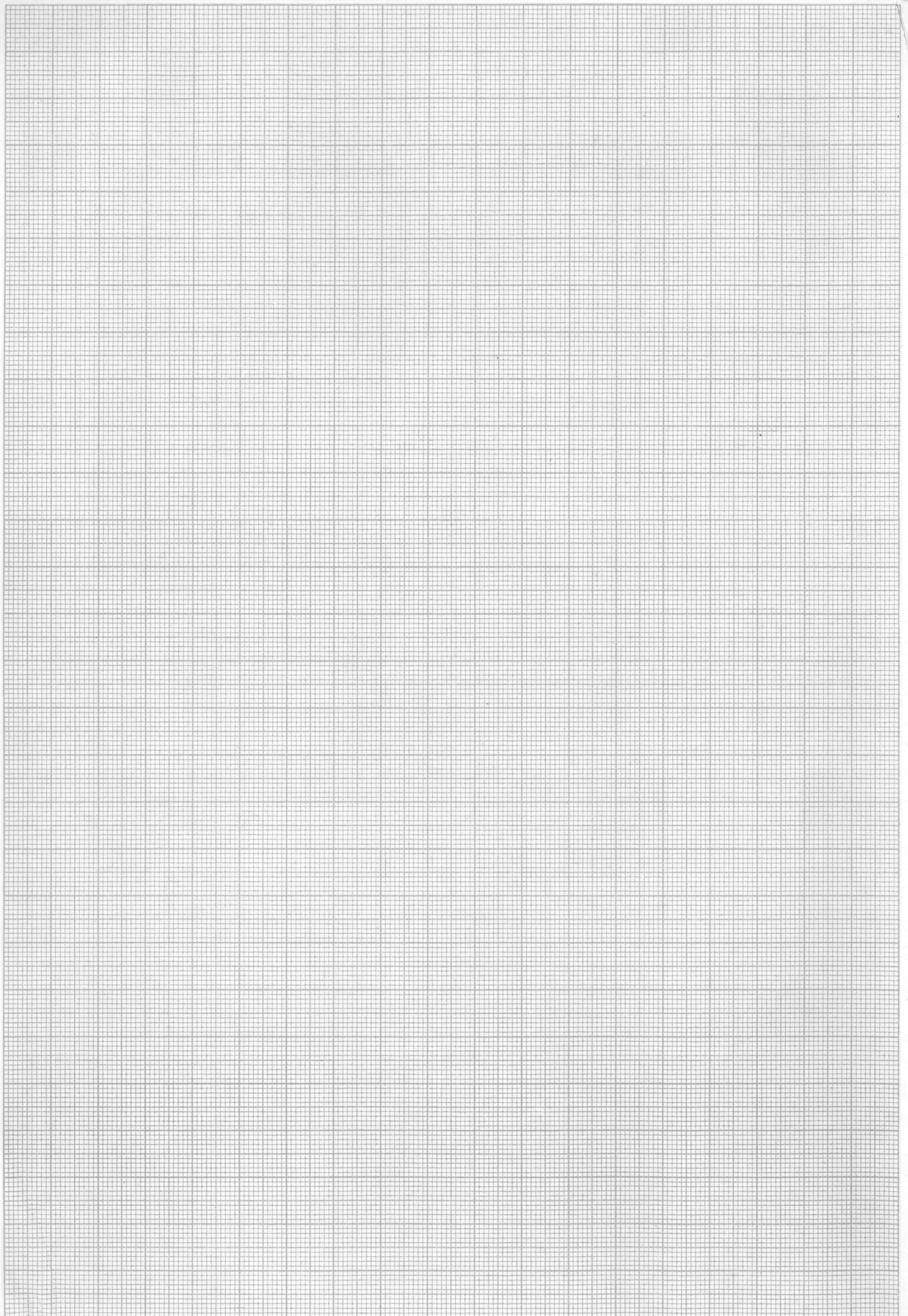
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TELEX: N0800L J523-6891

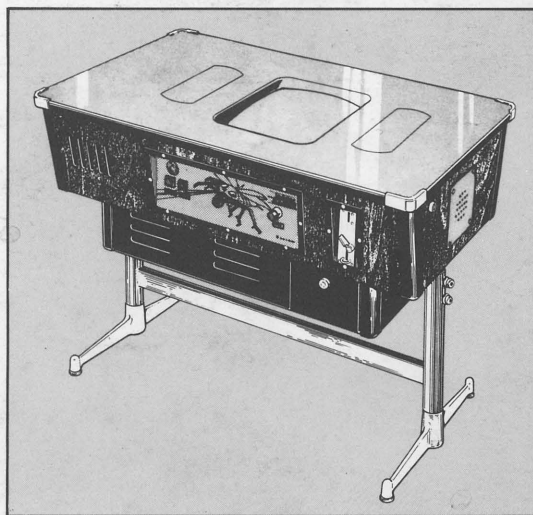
PART-II MOON ALIEN AL-10
SCALE SIZE DRAWING NO. SHEET



1 25 1 P 6 1 4







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: TELEPHONE (092) 472-7221

NICHIBUTSU LEISURE SYSTEM CO., LTD.

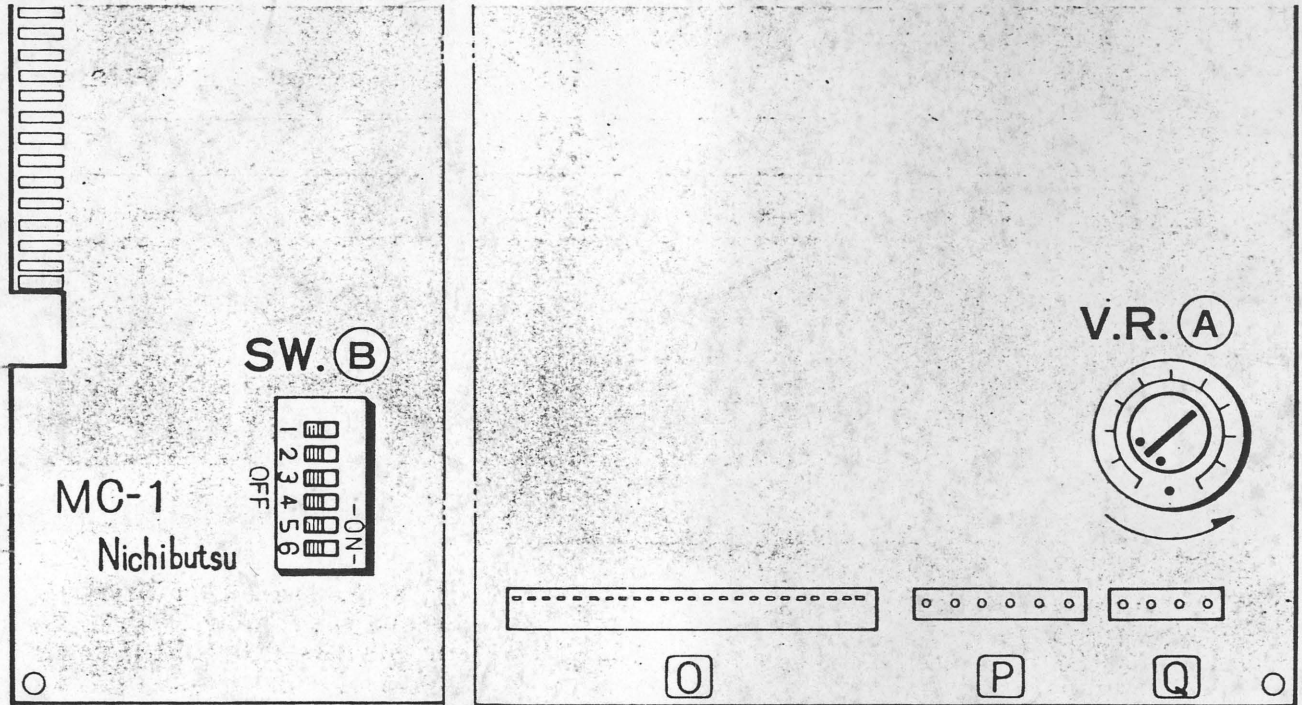
: TELEPHONE (03) 664-6774

NICHIBUTSU U.S.A. : TELEPHONE (214) 750-6044

5 OPERATER ADJUSTMENTS

• V.R. (A)

V.R. 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
Extended ROCKET score 30000 pts. 50000 pts.	<u>OFF</u>					
Instructions Japanese English		OFF				
Coinage (Selector 1) 1 Coin/1 play 2 Coin/1 play 3 Coin/1 play 4 Coin/1 play			<u>OFF</u>	OFF		
(Selector 2) 1 Coin/1 play 1 Coin/2 plays 1 Coin/3 plays FREE PLAY					<u>OFF</u>	OFF
					ON	OFF
					OFF	ON
					ON	ON

NOTE:

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

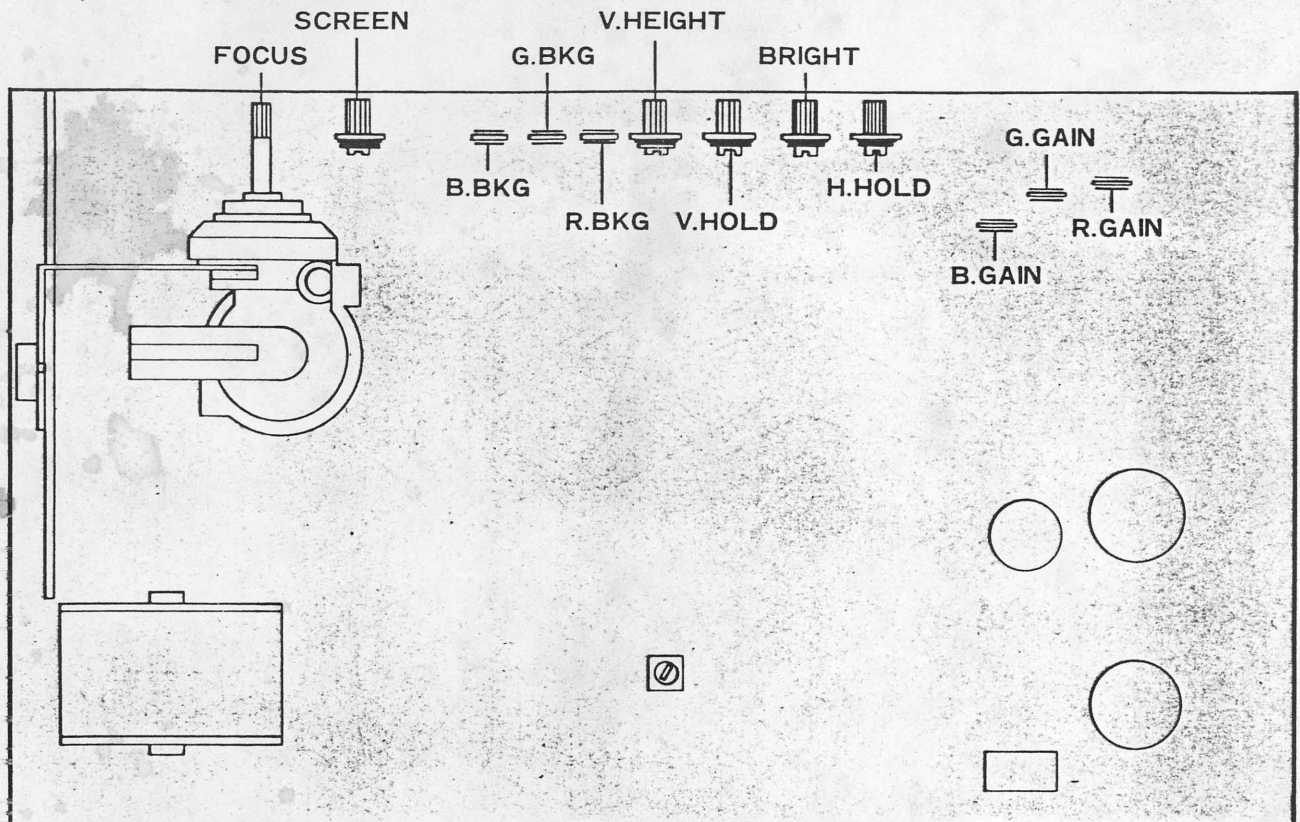
• SERVICE BUTTON (Ref. P1)

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

MOON CRESTA

6 MONITOR ADJUSTMENTS

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. HEIGHT:**
Adjustment for vertical height.
- **V. HOLD:**
Adjustment for keeping the picture vertically.
- **BLUE BKG, RED BKG, GREEN BKG:**
Adjustment for white balance in bright picture.
- **BLUE, GREEN, RED, GAIN:**
Adjustment for white balance in dark picture.
- **FOCUS:**
Adjustment for focus on picture.