MONACO GP™

STAND MODEL

MANUFACTURED BY

Gremlin®/SEGA®

MANUAL PART NO. 420·0445

OWNER'S MANUAL

MONACO GP

Stand Model

Gremlin®/SEGA®

MONACO GP Game Description:

When the coins are deposited, the player's red car appears in the lower right corner of the screen. Drive the car using the steering wheel and accelerator pedal, avoiding collisions with the computer cars. Game time is set to a count of 90.

Player goes into extended play when he reaches a score of 2000 points. In extended play, the player wins an extra car; and, one extra car is awarded after every additional 2000 points. The game becomes more difficult after a score of 6000 points. The player's car speeds up and, at 8000 points, the computer cars speed up.

The game's front panel displays your score and the top 5 high scores. Also, each player is given a ranking out of the total numbers of players to date.

Adjustments and Options:

There are 2 game options, located on the #96577A main logic board:

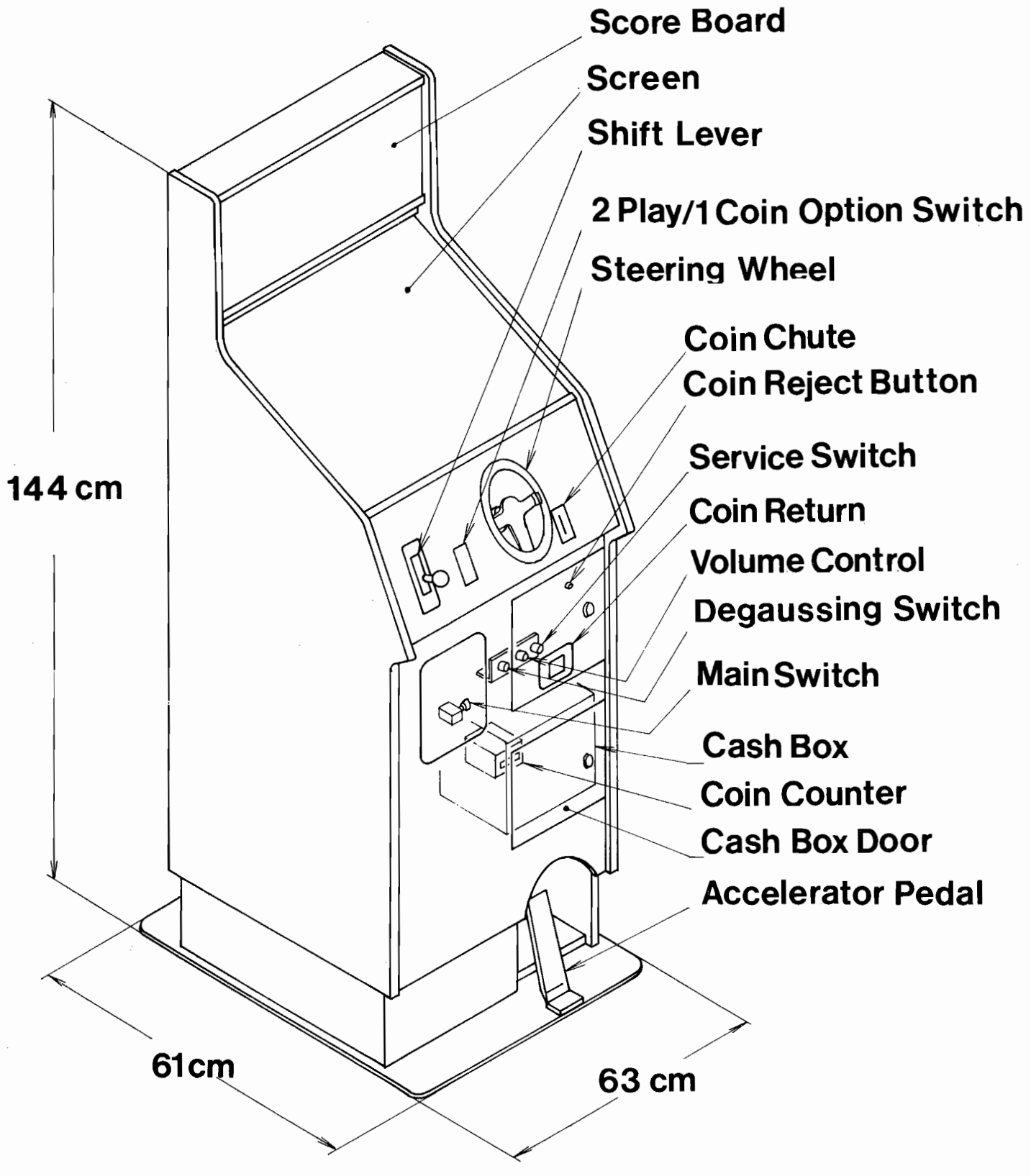
1. VR1- trim pot- adjusts game time
2. SW1- slide switch- selects either 1 or 2 plays per coin.

NOTE: On the sound board (#96598) there are 7 trim pots: These are for adjusting the FANFARE sound. They are pre-set by the factory. Also on this board are 2 switches, SW1 and SW2. SW1 should be set so that positions 1,2, and 3 are OFF. Position 4 should be ON. Switch SW2 should be set to positions 1 and 2 OFF.

Descriptions and Part Numbers of MONACO GP logic boards:

Logic board	Part Number Stamped on Board
Main logic, A	96577-P
Main logic, B	96578-P
Sound (Oscillator)	96598-P
Display board	96597-P
Display board	MO-4202
Accelerator board	96599-P
Edge connector board	96620-P
Edge connector board	96624-P

BASIC CONTROLS & DIMENSIONS



HELPFUL HINTS

DEGAUSSING THE CRT	Sometimes changing the location, or direction of the machine will cause a color change in the CRT. If this occurs, depress the DEGAUSSING SWITCH to correct.
DISASSEMBLING THE POWER UNIT	The power unit, located on the bottom of the unit, can be removed by unscrewing the three (3) butterfly (M5) bolts; and, disconnecting it from the rail before lifting out.
DISASSEMBLING THE STEERING UNIT	Remove the connecting plug and unhook the side hooks on each side of the unit. The steering unit will come out with the front panel.
REMOVING THE TV MONITOR	Remove the front panel and front glass. Loosen the four (4) mounting screws and remove all conections very carefully. The monitor is ready to pull out.
RESETTING THE SYSTEM	Occasionally, the signals will not reset when powering up. If this occurs, turn the power on/off a few times to reset the signal to the monitor.
FUSE REPLACEMENT	Always replace any fuse with the proper replacement of the same identical value.
2 PLAY/1 COIN OPTION	Remove the Front Panel Cover Plate and replace Panel Switch with MO-0019 (Instruction & Switch Assy). Reconnect harness following wiring diagram. Drill a 1.5mm hole **over** the old hole on the Denominational Plate. Add new plate

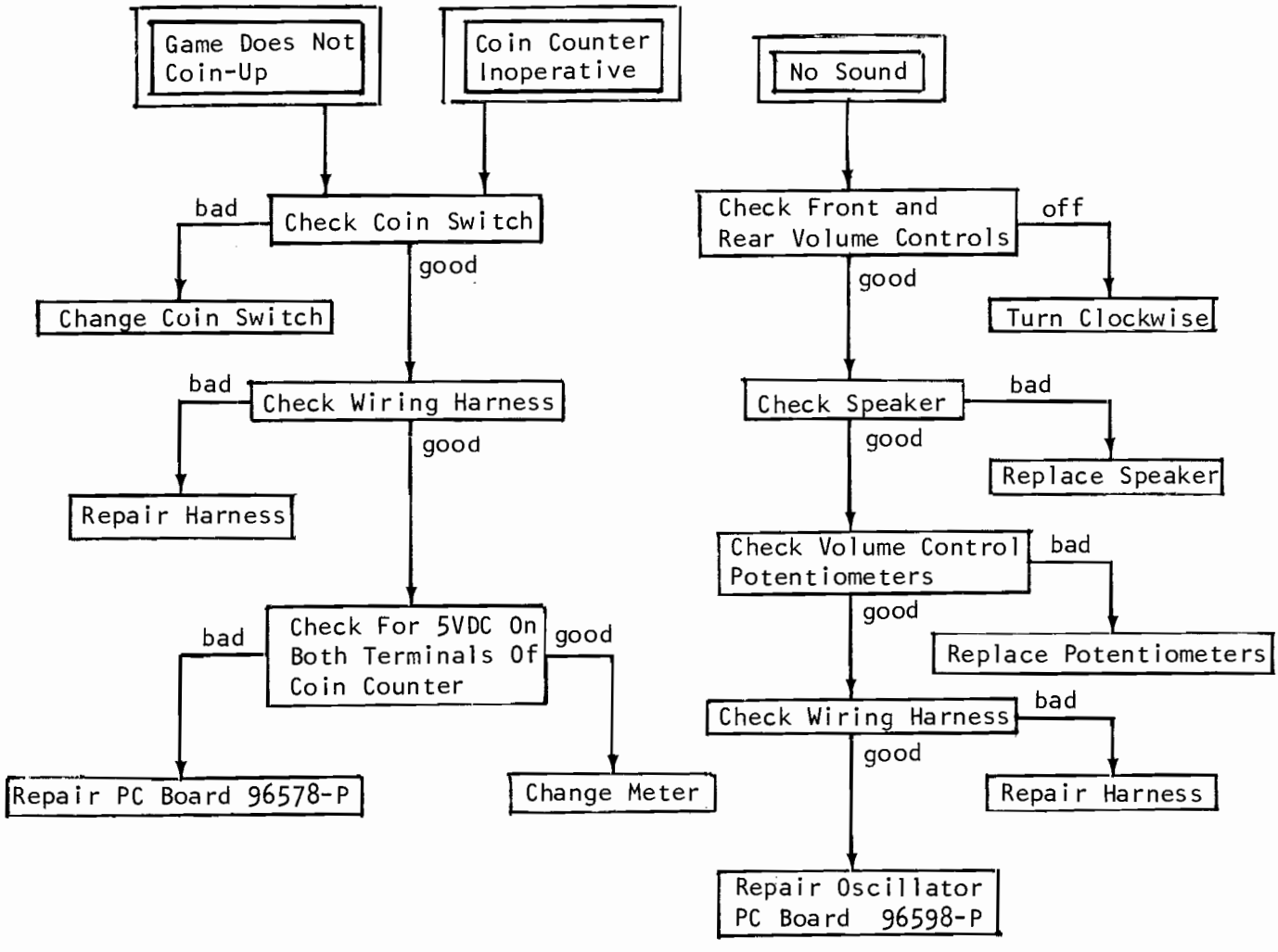
2 PLAY/1 COIN OPTION (cont.)

(177-013) with Parker Screws 1.5 x 4.5, as supplied.

Set switch position to 2 PLAY on main PCB 96577-P.

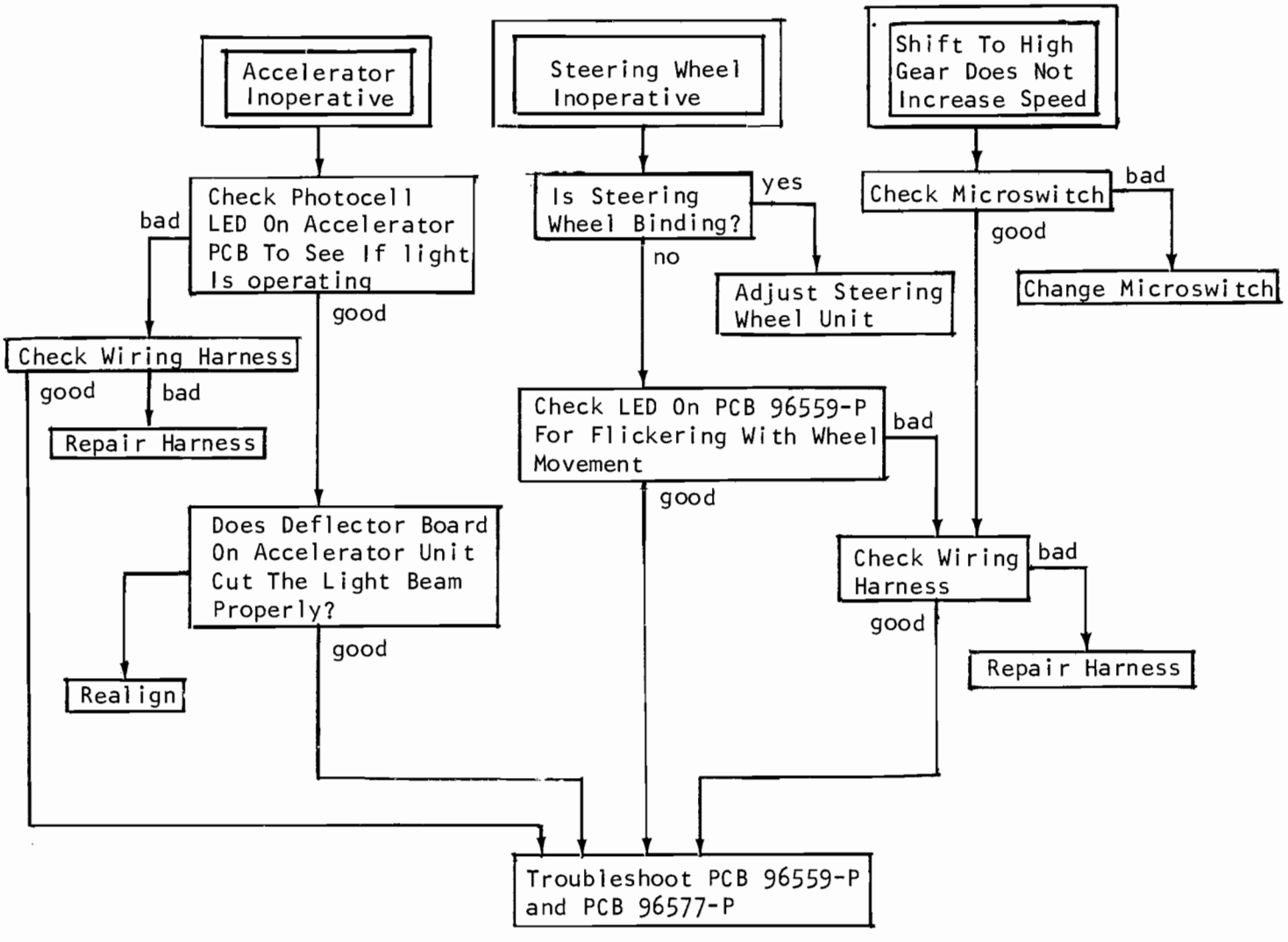
TROUBLESHOOTING

CHART 1



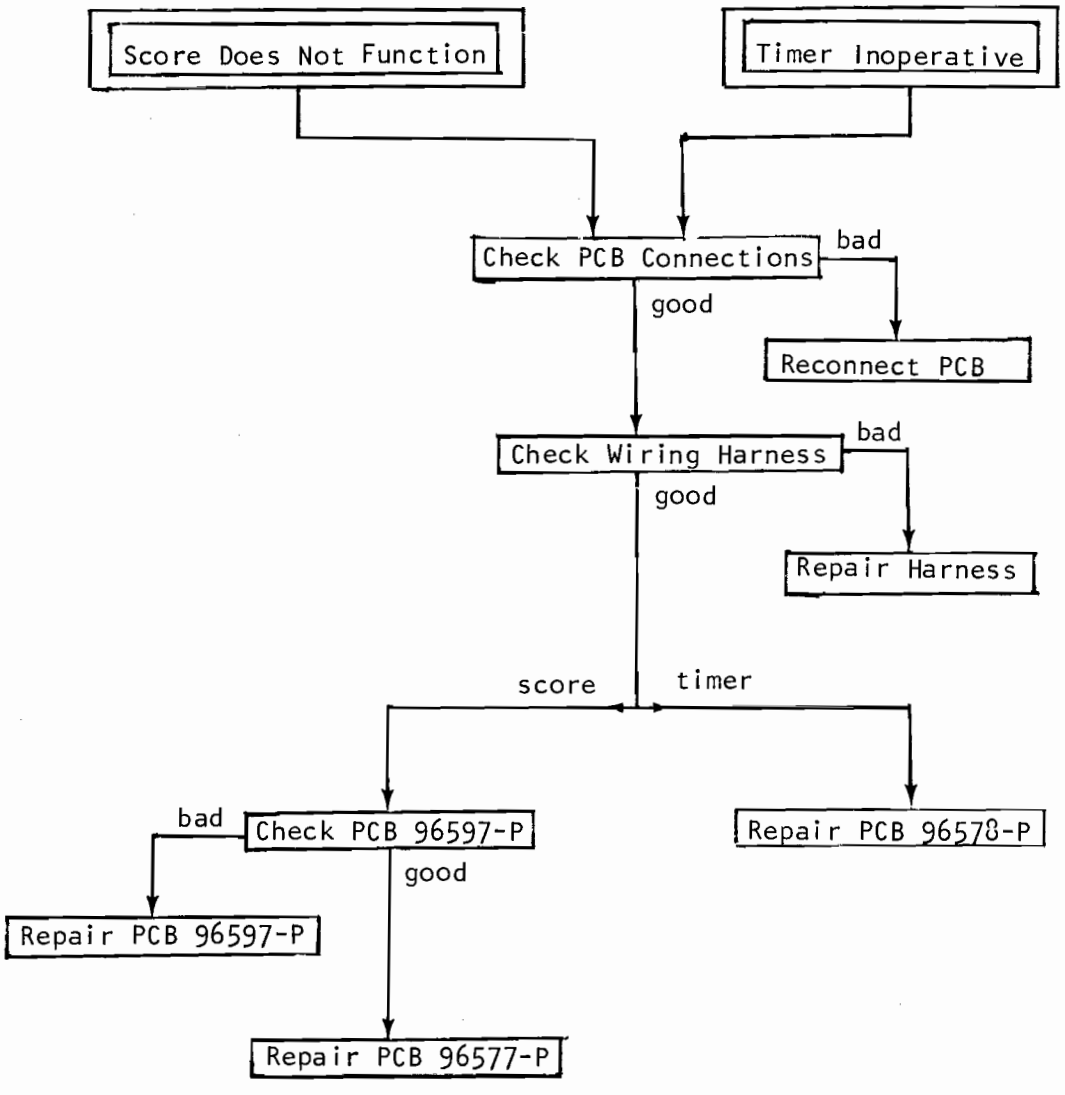
TROUBLESHOOTING

CHART 2

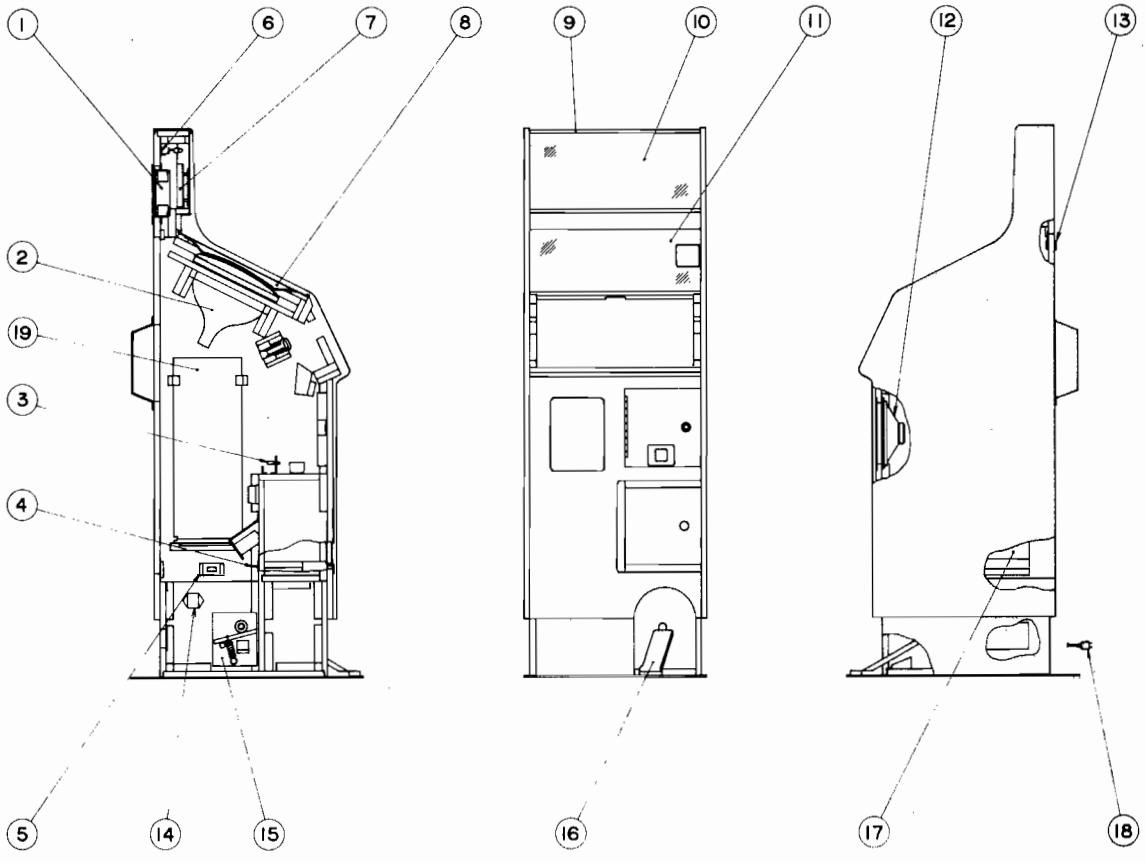


TROUBLESHOOTING

CHART 3

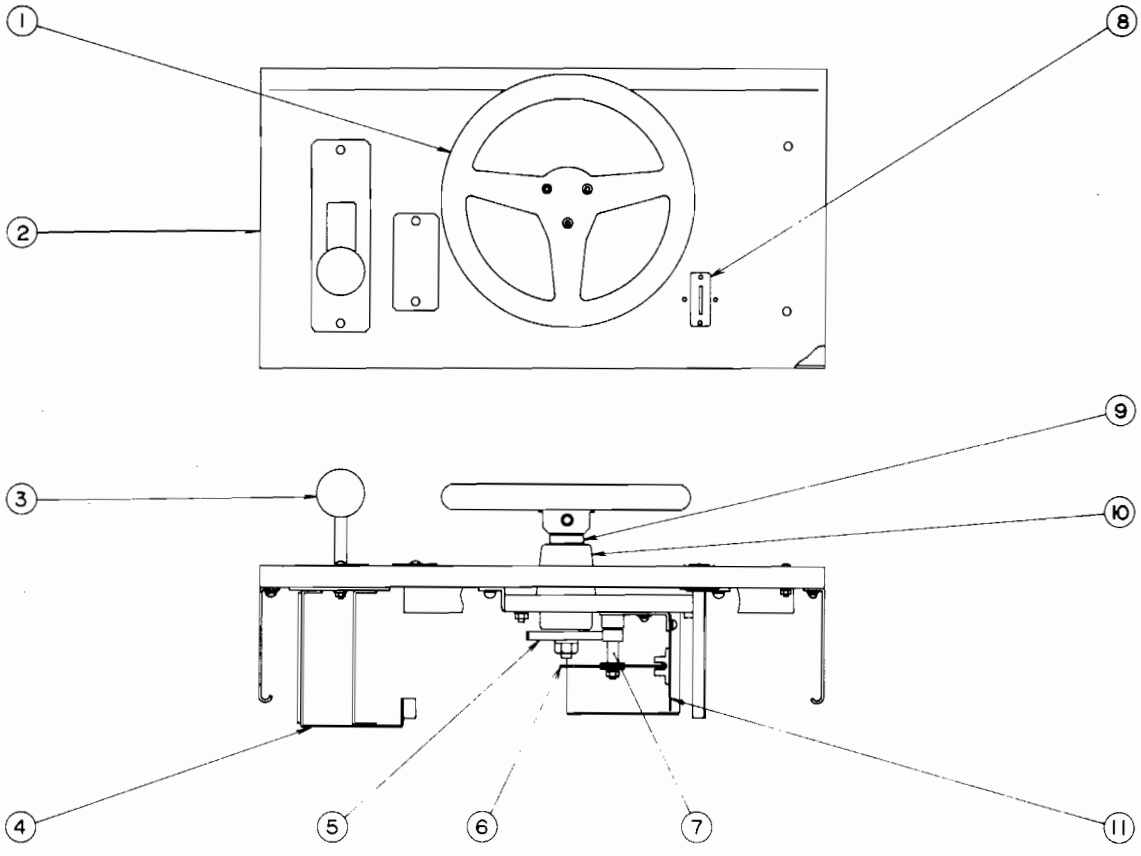


CABINET ACCESSORY ASSY



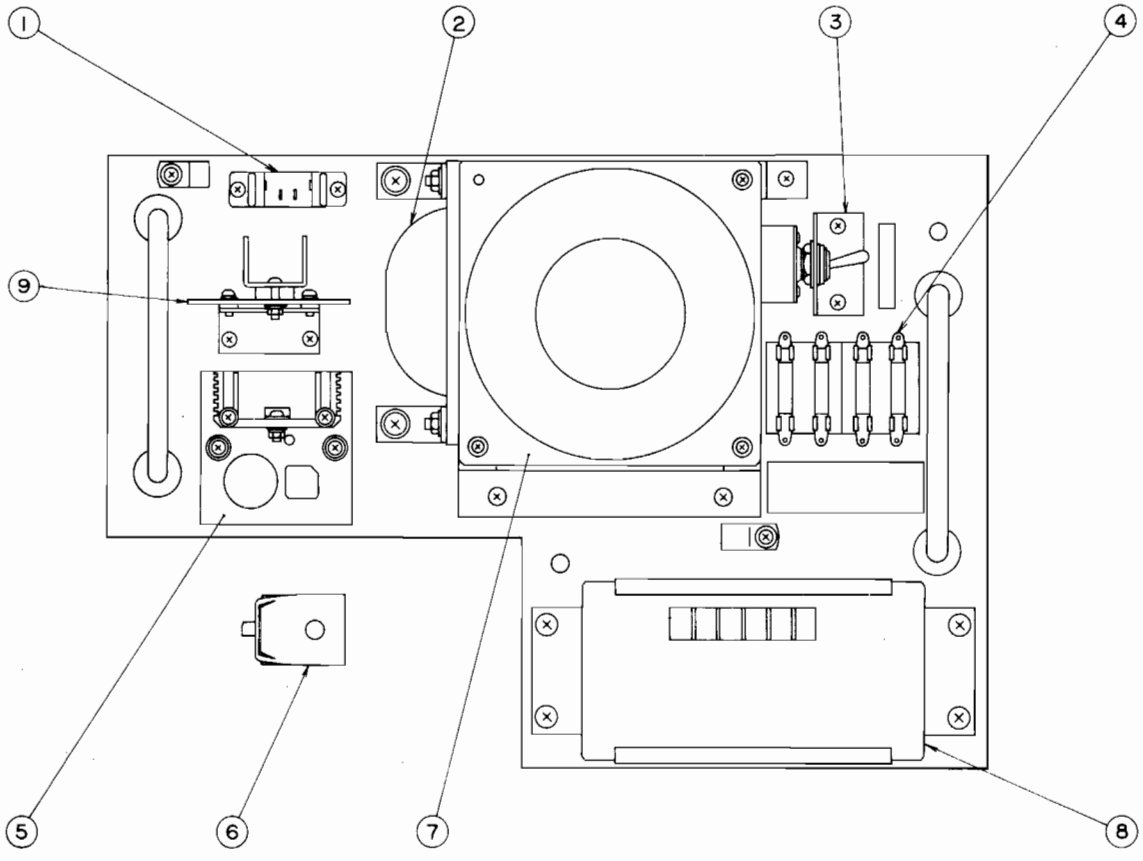
Item	Part No.	Description
1	S-96626	Axial Flow Fan, AC100V
2	CI-20006	Color Display Assy, 14H, 90
3	S-96477	Push Button Switch, 2T.
	S-93157	Volume Control, B-25KΩ
4	S-91654	Rectifier, Silicon Diode
5	S-90834	Switch, Push Button Type
6	S-94428	Bulb, 6.3V, 0.25A
7	MO-42001	Score Board Assy
	S-96600	L.E.D., Numeric Display, Red
	S-96679	L.E.D., Numeric Display, 2 Digit, Red
8	DO-1021	Color TV Mask, 14
9	MO-1032	Ornament Frame
10	MO-1033	Top Glass
11	MO-1064	Front Glass
	MO-1060	Play Instructions Plate
12	S-91359X	Speaker, 187x130mm, 8Ω
13	LS-1064	Ace Cylinder Lock, L.S. Type
14	S-96634	Noise Filter, AC 250V, 4A
15	MO-1016	Accelerator Pedal Assy
	PC-1206	Photocoupler Unit, A
	PC-1207	Photocoupler Unit, B
	SG-1112	Accelerator Pedal Shaft
	GP-1040	Shoulder Screw
	GP-1042	Extension Spring
	FL-3031	Extension Spring
	DH-3318	Shoulder Screw
16	S-80807	Accelerator Pedal
17	96577-P	IC Board Assy, Monaco GP, A
	96578-P	IC Board Assy, Monaco GP, B
	96598-P	Oscillator, Monaco GP
18	90759X	Cable & Plug Assy
19	96597-P	Score Display IC Board Assy

CONTROL PANEL ASSY



Item	Part No.	Description
1	MO-2021	Steering Handle
2	MO-2018	Front Panel
3	MP-1025	Handle Ball, Red
4	MO-2023	Transmission Assy
	RR-1012	Handle Assy
	SH-3022	Cam Assy
	2P-11600	Rubber Bumper
	2P-11601	Rubber Retainer
	FC-2541	Compression Spring
	S-80216	Steel Ball, 10.3188ϕ
	S-91421	Switch, Micro Type
5	MO-2009	Spur Gear, 60T
6	MO-2007	Disc
7	MO-2008	Spur Gear, 14T
8	PT-0212	Coin Entry Plate, ¥100
9	MO-2020	Steering Wheel Shaft
10	MO-2004	Housing
11	96599-P	IC Board Assy, Monaco GP, C

POWER SUPPLY ASSY

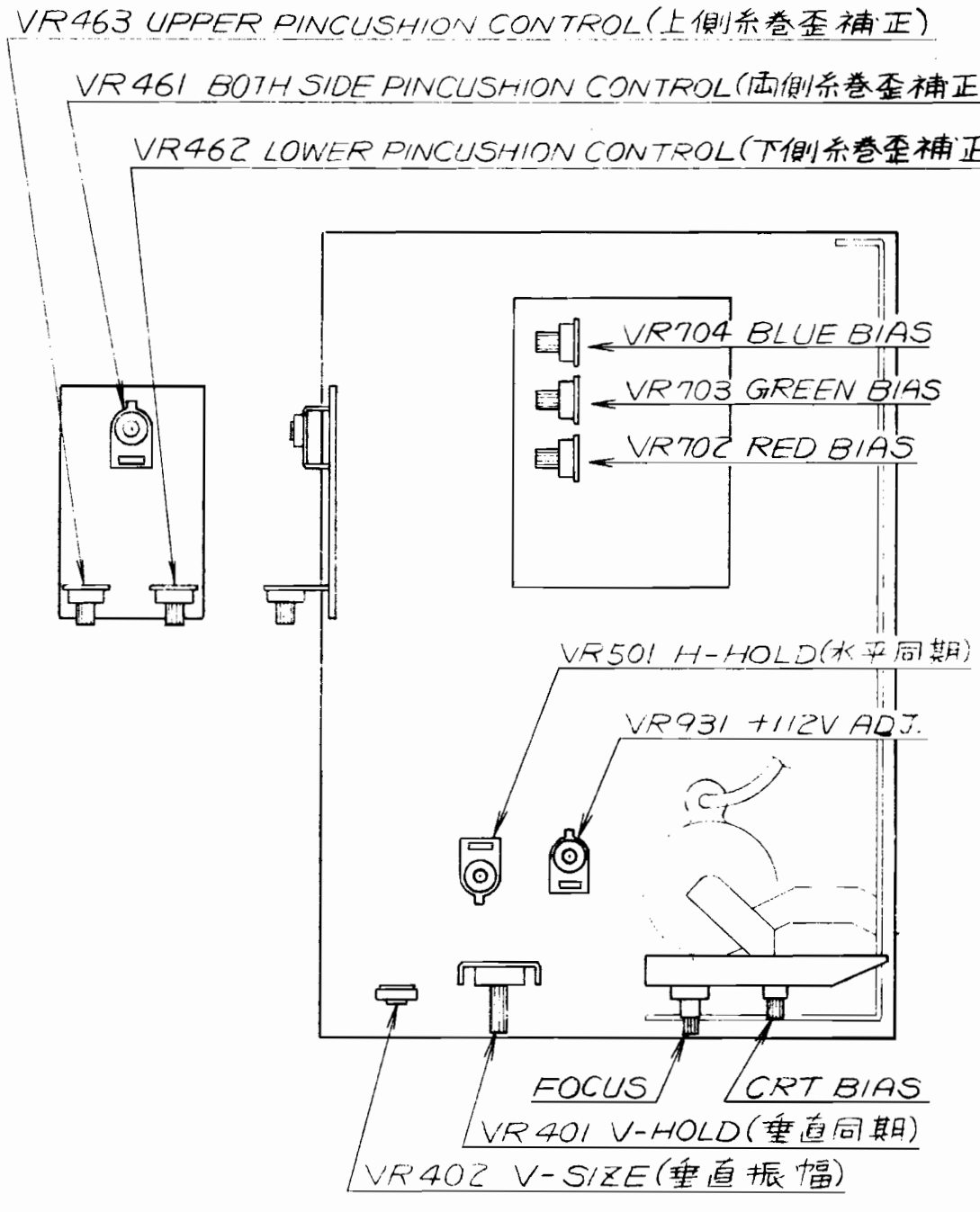


Item	Part No.	Description
1	S-94441	Rectifier, Silicon Diode
2	96627	Power Transformer, 7V, 11V, 16V, 100-120V
3	S-96395	Switch Toggle, SP-DT, 15A
4	S-90644	Fuse, 2A
	S-91941	Fuse, 4A
	S-91151	Fuse, 8A
5	MO-4002	Regulator Unit, DC12V, 20V
6	S-96262	AC Cord, Connector Body, Flat Type, 125V-15A
7	S-96626	Axial Flow Fan, AC100V
8	S-96638	Switching Regulator, AC100V, 5V, 15A
9	BC-4603X	Power Amplifier, 5W

TV MONITOR ADJUSTMENTS

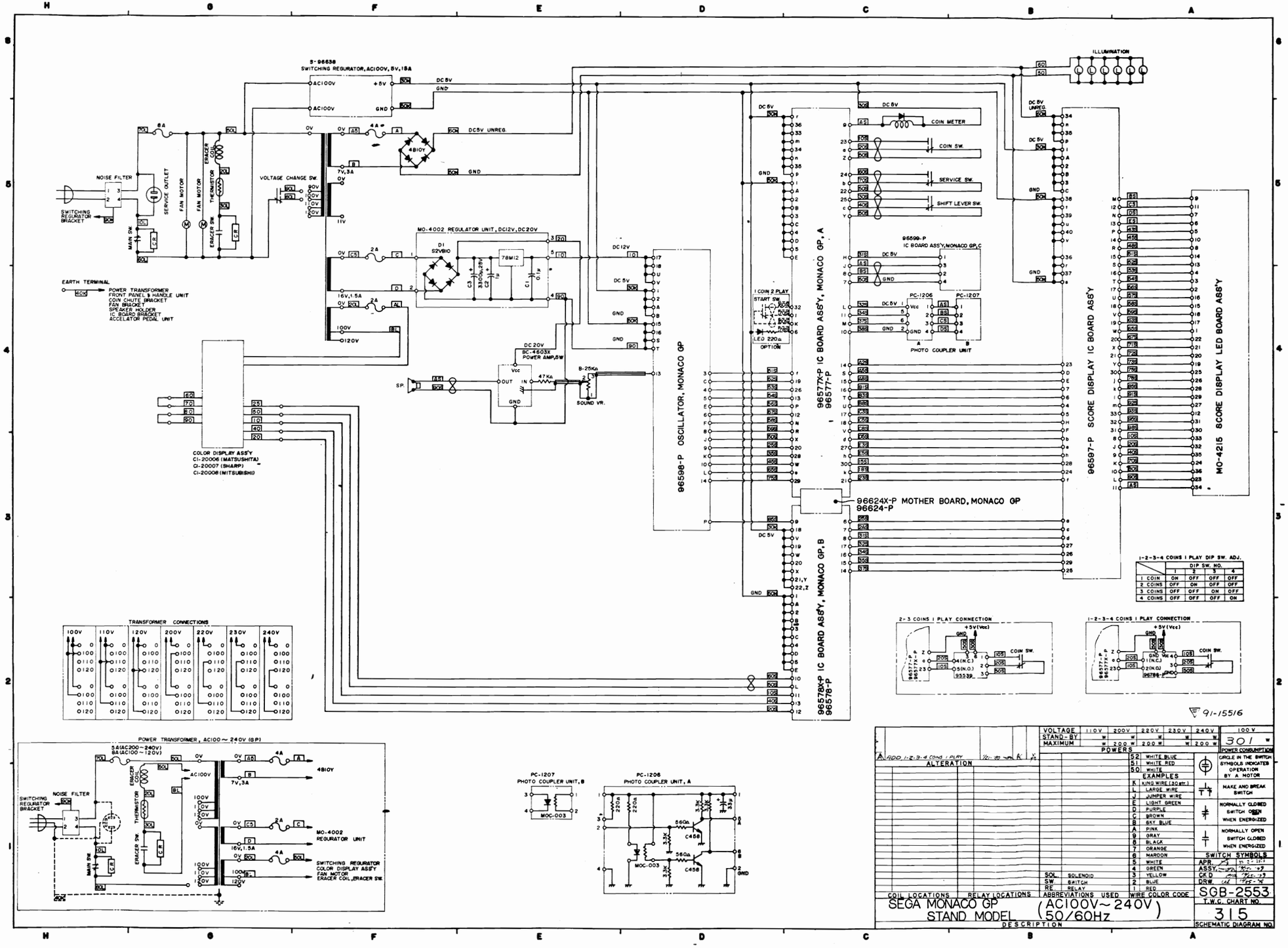
SUB-BRIGHT	R408	Monitor brightness
HORIZ WIDTH	L601 (CRT)	
VERT WIDTH	R517 (CRT)	
VERT POSITION	K502	Moves center to right
	K501	Center
	K503	Moves center to left
VERT HOLD	R515 (CRT)	
HORIZ HOLD	R616 (CRT)	
B+	R707	Adjustable from 90v to 105v
RED DRIVE	R807	
BLUE DRIVE	R809	
RED BIAS	R813	These three adjustments interact to balance white and set halftones and gray balance. Red and Blue Drive controls interact also.
GREEN BIAS	R814	
BLUE BIAS	R815	
SCREEN ADJUST	R824	Increases brightness and interacts with white balance. After white balance adjustments, the beam current setting (R301 dc voltage) must not exceed -7.0v.
FOCUS		Adjust each time brightness is altered.

カラー モニターの調整
TV VOLUME ADJUSTMENT INSTRUCTIONS

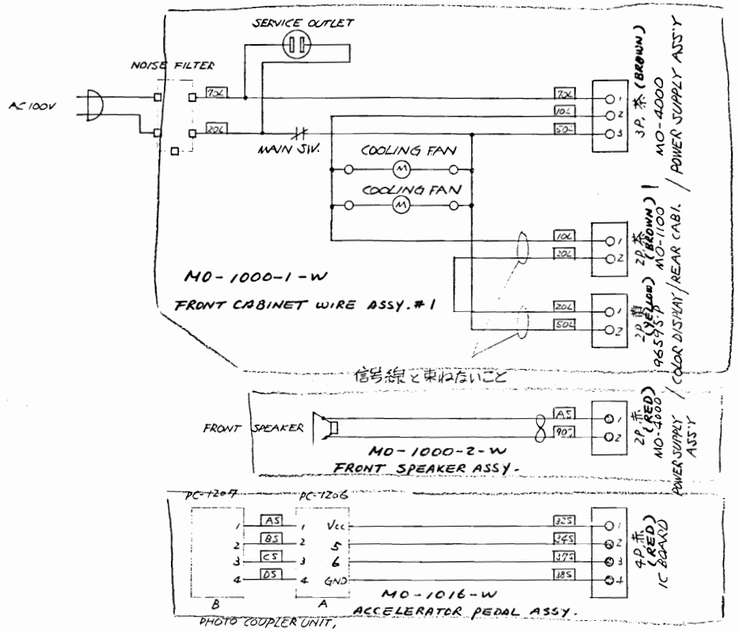


S-96592-P COLOR DISPLAY, 14H TYPE
(MITSUBISHI 919C049-3)

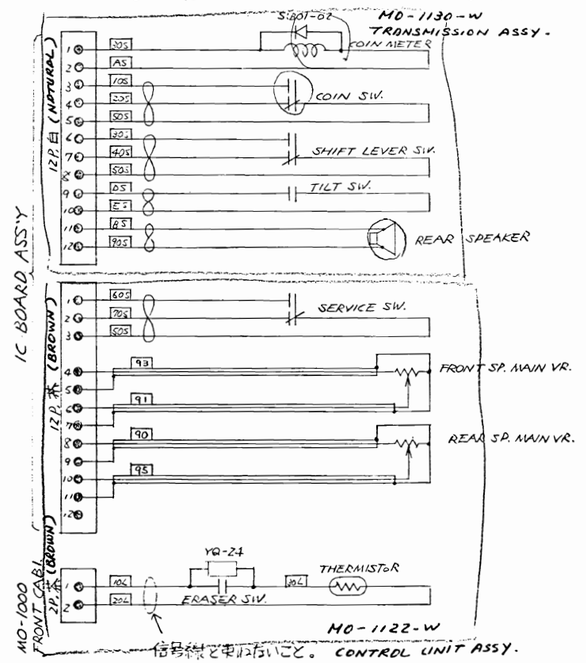
SEGA enterprises Ltd.


S-96638
SWITCHING REGURATOR, AC100V, 5V, 18A
AC100V
+5V
GND
DC 5V
DC5V UNREG.
4BIOY
7V, 3A
11V
MO-4002 REGULATOR UNIT, DC12V, DC20V
D1 S2VB10
78M12
DC12V
DC 5V
DC20V
BC-4603X POWER AMP, 5W
SP.
47Ka
B-25Ka
SOUND VR.
NOISE FILTER
SWITCHING REGULATOR BRACKET
SERVICE OUTLET
FAN MOTOR
THERMISTOR
ERASER COIL
ERASER SW
MAIN SW
VOLTAGE CHANGE SW.
100V
120V
EARTH TERMINAL
POWER TRANSFORMER
FRONT PANEL & HANDLE UNIT
COIN CHUTE BRACKET
FAN BRACKET
SPEAKER HOLDER
IC BOARD BRACKET
ACCELATOR PEDAL UNIT
COLOR DISPLAY ASS'Y
C1-20006 (MATSUSHITA)
C1-20007 (SHARP)
C1-20008 (MITSUBISHI)
96598-P OSCILLATOR, MONACO GP
96577X-P IC BOARD ASS'Y, MONACO GP, A
96577-P
96577X-P IC BOARD ASS'Y, MONACO GP, B
96578-P
96578X-P
1 COIN 2 PLAY
START SW.
LED 220Ω
OPTION
COIN METER
COIN SW.
SERVICE SW.
SHIFT LEVER SW.
96599-P
IC BOARD ASS'Y, MONACO GP, C
PC-1206
PC-1207
PHOTO COUPLER UNIT
96624X-P MOTHER BOARD, MONACO GP
96624-P
ILLUMINATION
96597-P SCORE DISPLAY IC BOARD ASS'Y
MO-4215 6CORE DISPLAY LED BOARD ASS'Y
1-2-3-4 COINS 1 PLAY DIP SW. ADJ.
DIP SW. NO.
1 COIN
2 COINS
3 COINS
4 COINS
2-3 COINS 1 PLAY CONNECTION
1-2-3-4 COINS 1 PLAY CONNECTION
COIN SW.
TRANSFORMER CONNECTIONS
100V
110V
120V
200V
220V
230V
240V
POWER TRANSFORMER, AC100~240V (GP)
5A(AC200~240V)
8A(AC100~120V)
AC100V
4BIOY
7V, 3A
MO-4002 REGURATOR UNIT
16V, 1.5A
SWITCHING REGURATOR COLOR DISPLAY ASSY FAN MOTOR ERACER COIL, ERACER SW.
PC-1207
PHOTO COUPLER UNIT, B
MOC-003
PC-1206
PHOTO COUPLER UNIT, A
C458
91-15516
ADD 1-2-3-4 COINS 1 PLAY
ALTERATION
VOLTAGE
STAND-BY
MAXIMUM
100V
110V
200V
220V
230V
240V
POWERS
WHITE BLUE
WHITE RED
WHITE
EXAMPLES
K WIRE (30 ATT.)
L LARGE WIRE
J JUMPER WIRE
E LIGHT GREEN
D PURPLE
C BROWN
B SKY BLUE
A PINK
9 GRAY
8 BLACK
7 ORANGE
6 MAROON
5 WHITE
4 GREEN
3 YELLOW
2 BLUE
1 RED
WIRE COLOR CODE
SOL SOLENOID
SW SWITCH
RE RELAY
ABBREVIATIONS USED
COIL LOCATIONS
RELAY LOCATIONS
301 W
POWER CONSUMPTION
CIRCLE IN THE SWITCH SYMBOLS INDICATES OPERATION BY A MOTOR
MAKE AND BREAK SWITCH
NORMALLY CLOSED SWITCH OPEN WHEN ENERGIZED
NORMALLY OPEN SWITCH CLOSED WHEN ENERGIZED
SWITCH SYMBOLS
APR.
ASSY.
CK'D
DRW.
SGB-2553
T.W.G. CHART NO.
315
SCHEMATIC DIAGRAM NO.
SEGA MONACO GP
STAND MODEL
(AC100V~240V)
(50/60Hz
DESCRIPTION

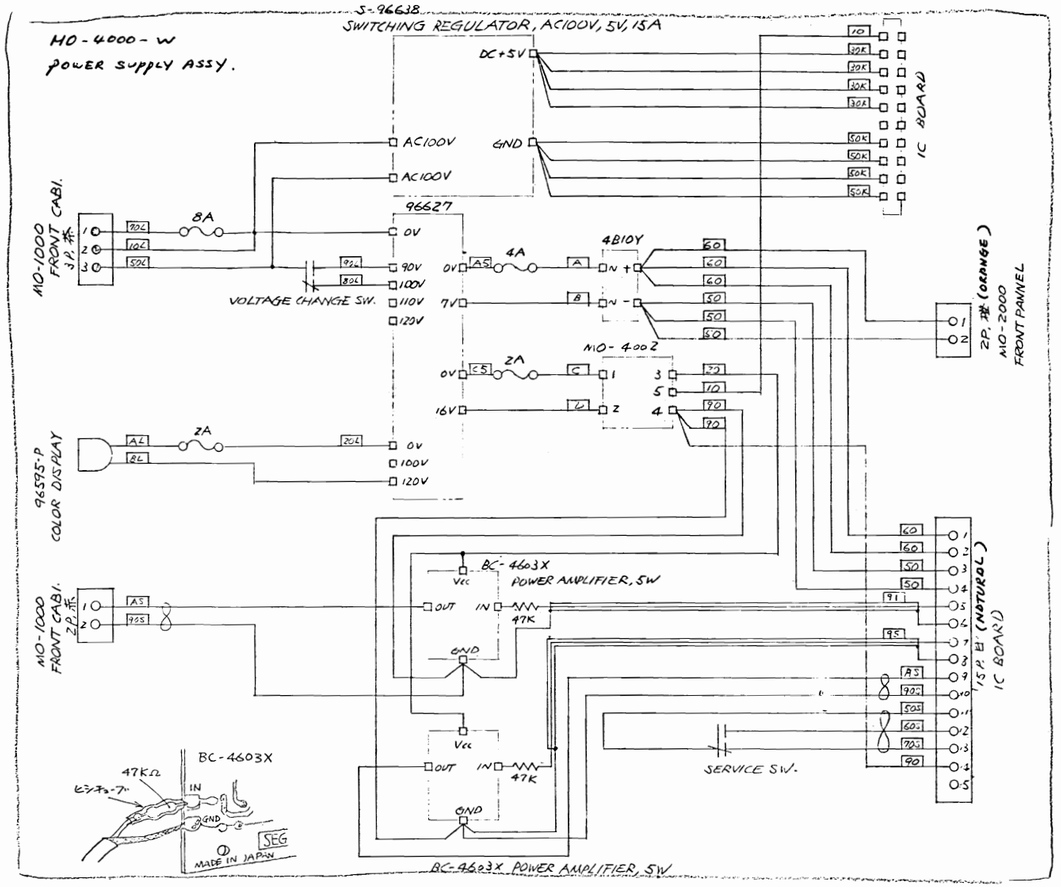
MO-1000 FRONT CABINET ACCESSORY ASS'Y



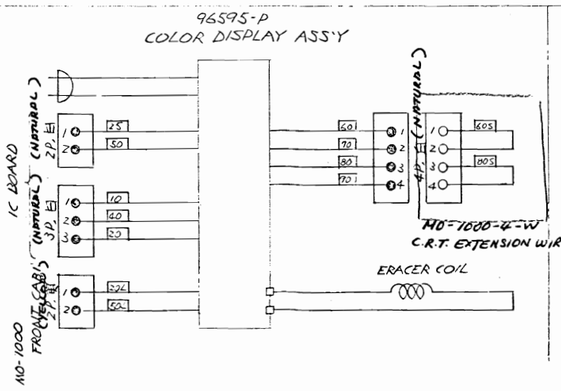
MO-1100 REAR CABINET ACCESSORY ASS'Y



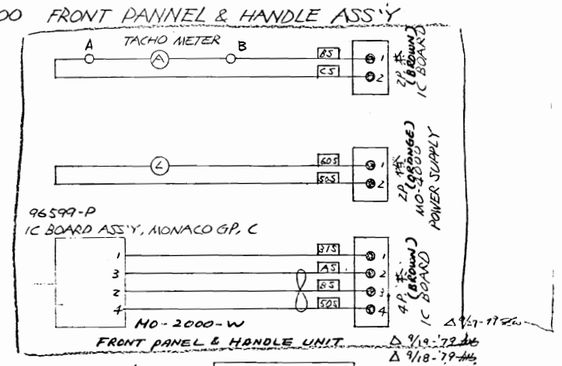
MO-4000 POWER SUPPLY ASS'Y



96595-P COLOR DISPLAY ASS'Y



MO-2000 FRONT PANNEL & HANDLE ASS'Y

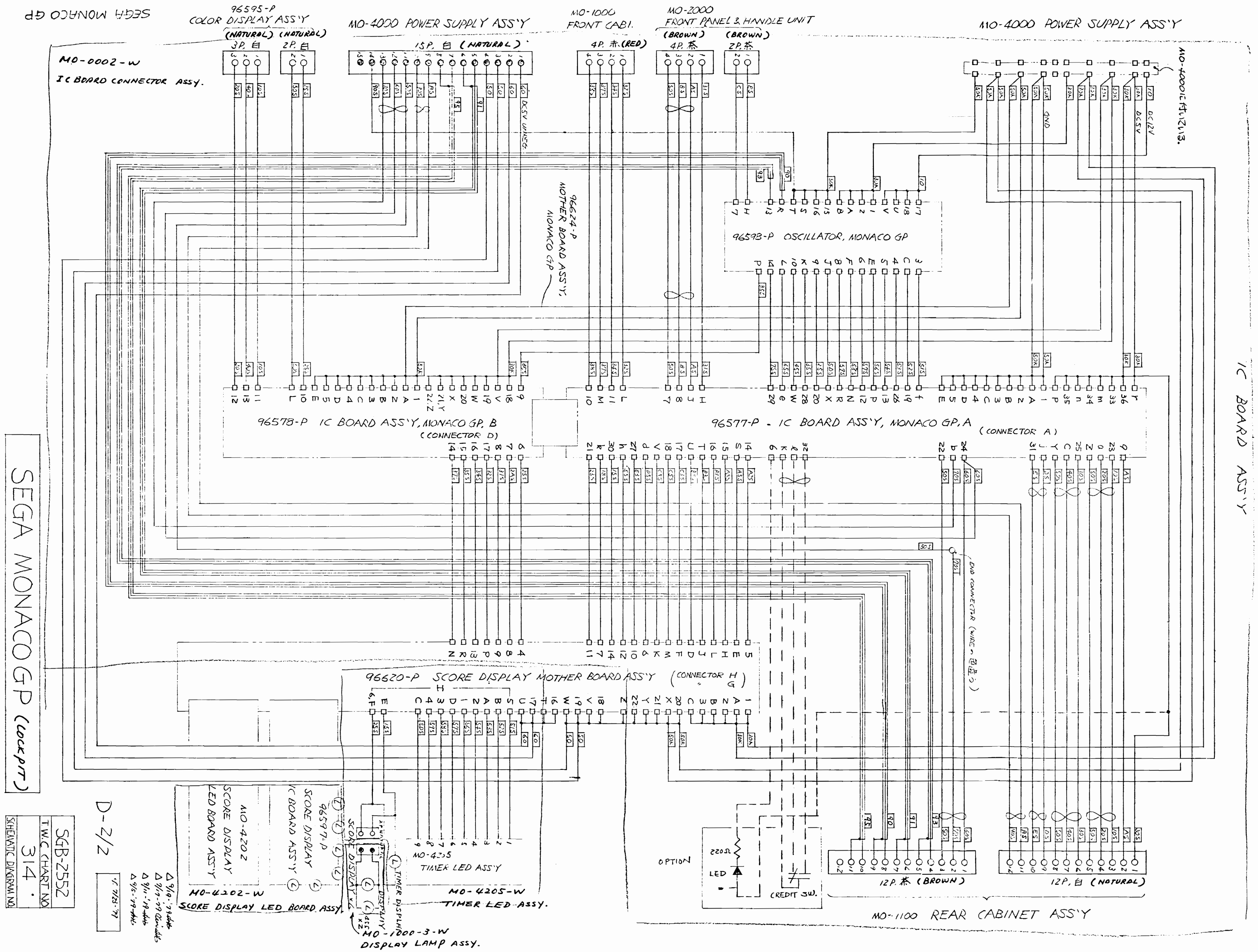


D-1/2

SGB-2552	
T.W.C. CHART NO.	314
SCHEMATIC DIAGRAM NO.	

△ 9/19-'77
△ 9/18-'77
△ 9/17-'77
△ 9/10-'77
△ 9/-'77
• 7/23-'77

SEGA MONACO GP (COCKPIT)

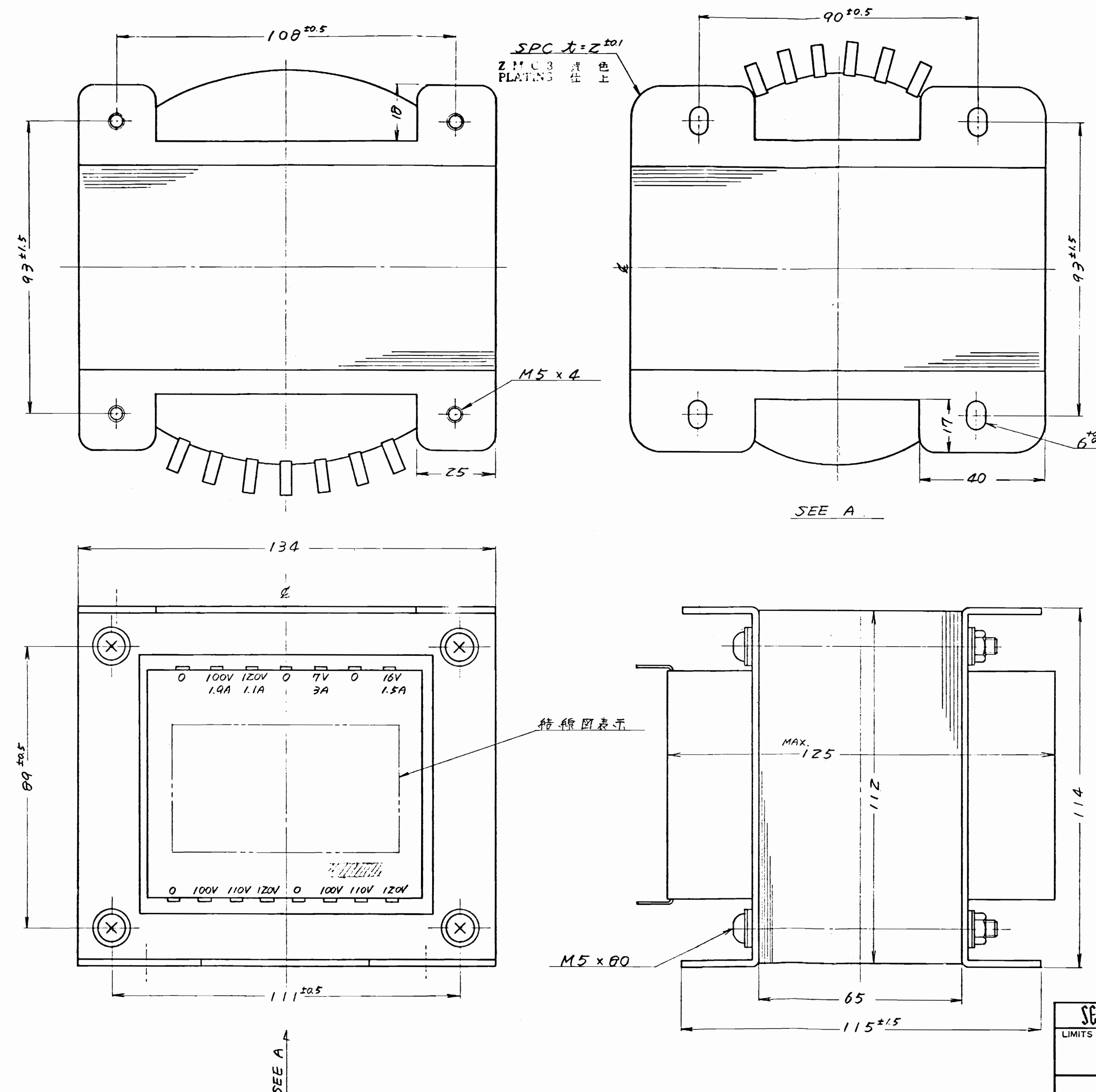


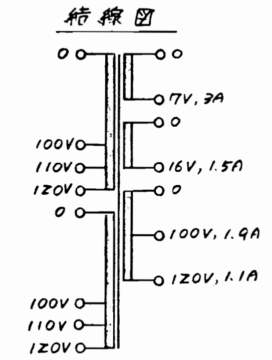
SEGA MONACO GP
MO-0002-W
IC BOARD CONNECTOR ASSY.
96595-P
COLOR DISPLAY ASS'Y
(NATURAL) (NATURAL)
3P. 白 2P. 白
MO-4000 POWER SUPPLY ASS'Y
15P. 白 (NATURAL)
MO-1000
FRONT CABI.
4P. 赤 (RED)
MO-2000
FRONT PANEL & HANDLE UNIT
(BROWN) (BROWN)
4P. 茶 2P. 茶
MO-4000 POWER SUPPLY ASS'Y
GND
DC12V
DC5V
96624-P
MOTHER BOARD ASS'Y, MONACO GP
96593-P OSCILLATOR, MONACO GP
96578-P IC BOARD ASS'Y, MONACO GP. B
(CONNECTOR D)
96577-P - IC BOARD ASS'Y, MONACO GP. A
(CONNECTOR A)
IC BOARD ASS'Y
END CONNECTOR
96620-P SCORE DISPLAY MOTHER BOARD ASS'Y
(CONNECTOR H G)
OPTION
220Ω
LED
CREDIT SW.
12P. 茶 (BROWN)
12P. 白 (NATURAL)
MO-1100 REAR CABINET ASS'Y
MO-4202
SCORE DISPLAY
LED BOARD ASS'Y
96597-P
SCORE DISPLAY
IC BOARD ASS'Y
MO-4205
TIMER LED ASS'Y
MO-4202-W
SCORE DISPLAY LED BOARD ASSY.
MO-4205-W
TIMER LED ASSY.
MO-1000-3-W
DISPLAY LAMP ASSY.
SEGA MONACO GP (COCKPIT)
D-2/2
SGB-2552
T.W.C. CHART NO.
314
SCHEMATIC DIAGRAM NO.

MACHINE	SUB-ASS'Y
	LIST-B150Z

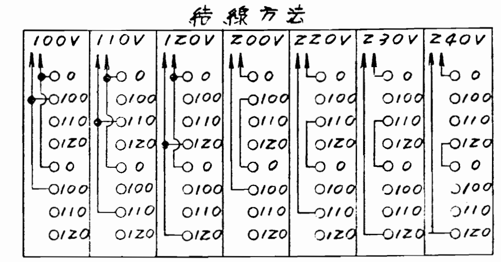
ALTERATIONS

REMODEL





結線方法



仕様

1 型 種　単相乾式自冷型
2 出力容量　367VA
3 定格一次電圧　100,110,120,200,220,230,240V
4 定格二次電圧　7,16,100,120V
5 周波数　50-60Hz
6 時間定格　連続
7 絶縁種類　A 種
8 絶縁抵抗　DC500VメガーニテI00MΩ以上
9 絶縁耐力　AC1500Vニテ1分間耐エルコト
10 温度上昇　抵抗法ニテ60deg以下
11 電圧変動　無負荷 7.35V以下負荷 3A 7V以上
〃 16.8V 〃 1.5A 16V以上
〃 105V 〃 1.9A 100以上
〃 126V 〃 1.1A 120V以上
12 安全規格　電気用品取締法ヲ満足スルコト

SEGA® enterprises ltd.

THIS DRAWING WILL IN NO WAY BE COPIED.
TO BE RETURNED ON DEMAND.

許可ナク複写複製等厳禁

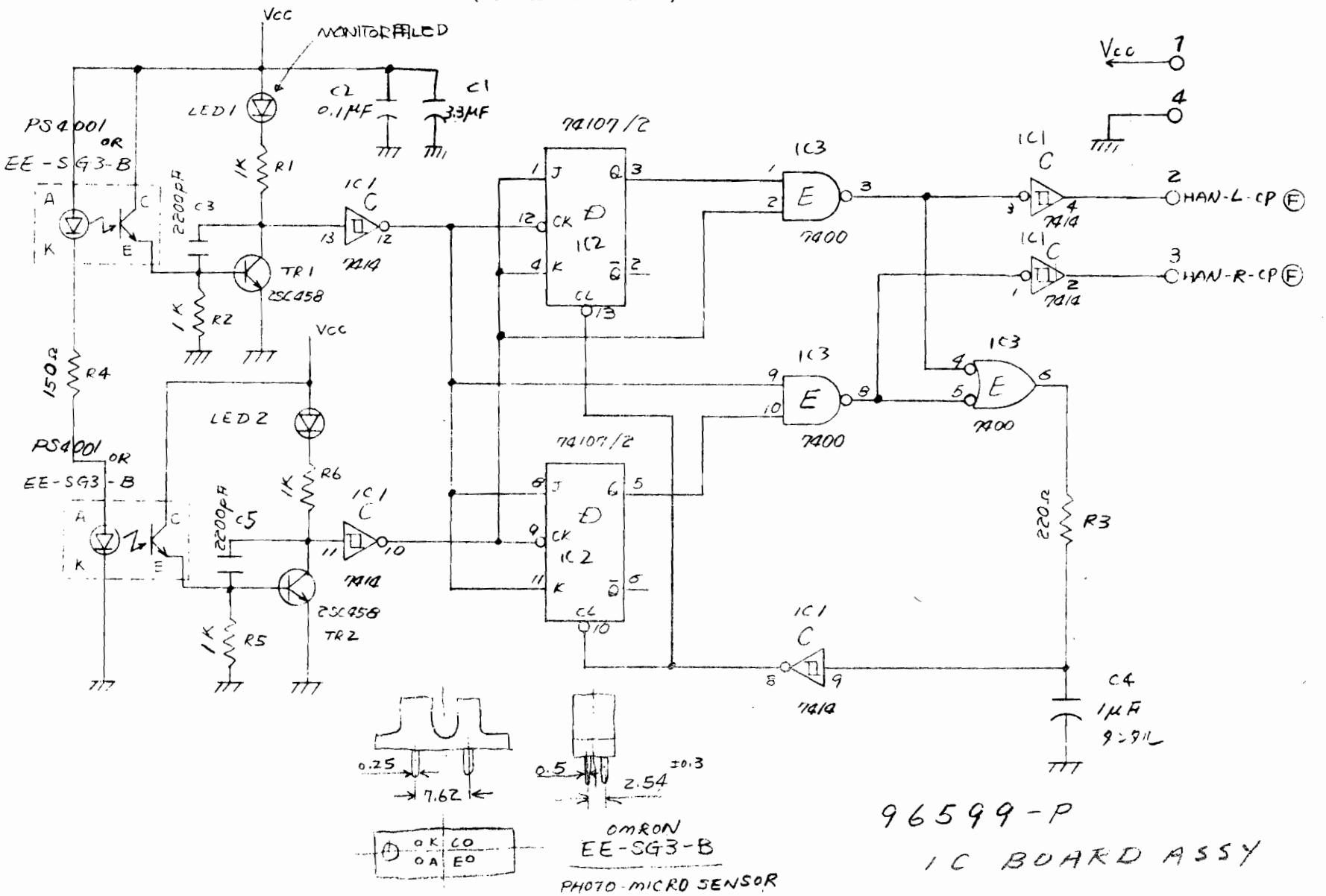
LIMITS UNLESS OTHERWISE SPECIFIED	3RD QUAT. PROJ. DRAWING		APR.	
±1	SCALE	1/1	ASS'Y	10/31-'79
	DIM. IN	mm	CK'D	10/31-'79
			DRW.	10/30-'79

MATERIAL	HEAT TREAT.	FINISH	REMARK

DESCRIPTION	PART NO
POWER TRANSFORMER, 100-240V (GP)	96741

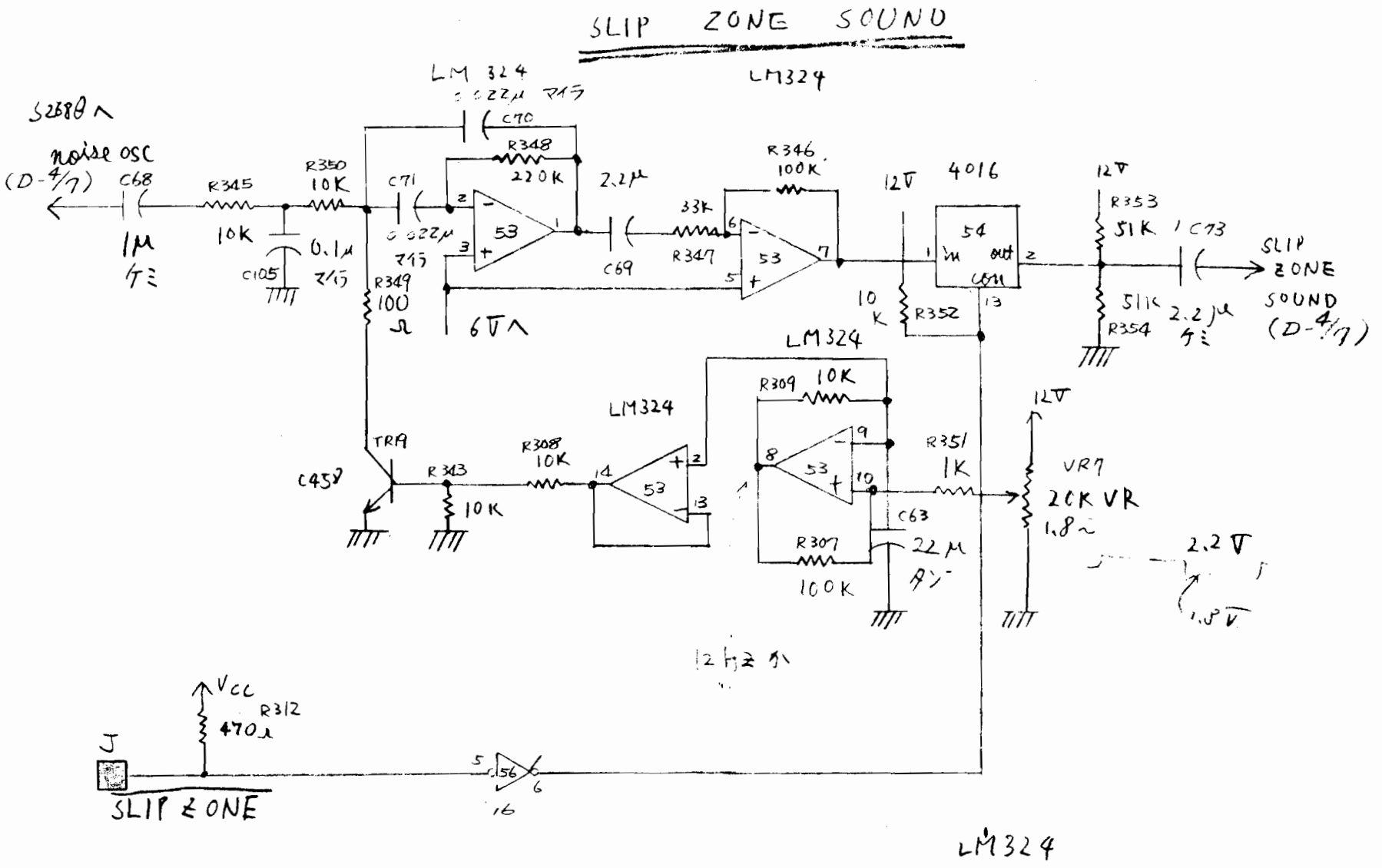
HANDLE, LOGIC DIAGRAM

(ACCELERATOR BOARD)



96599-P

IC BOARD ASSY



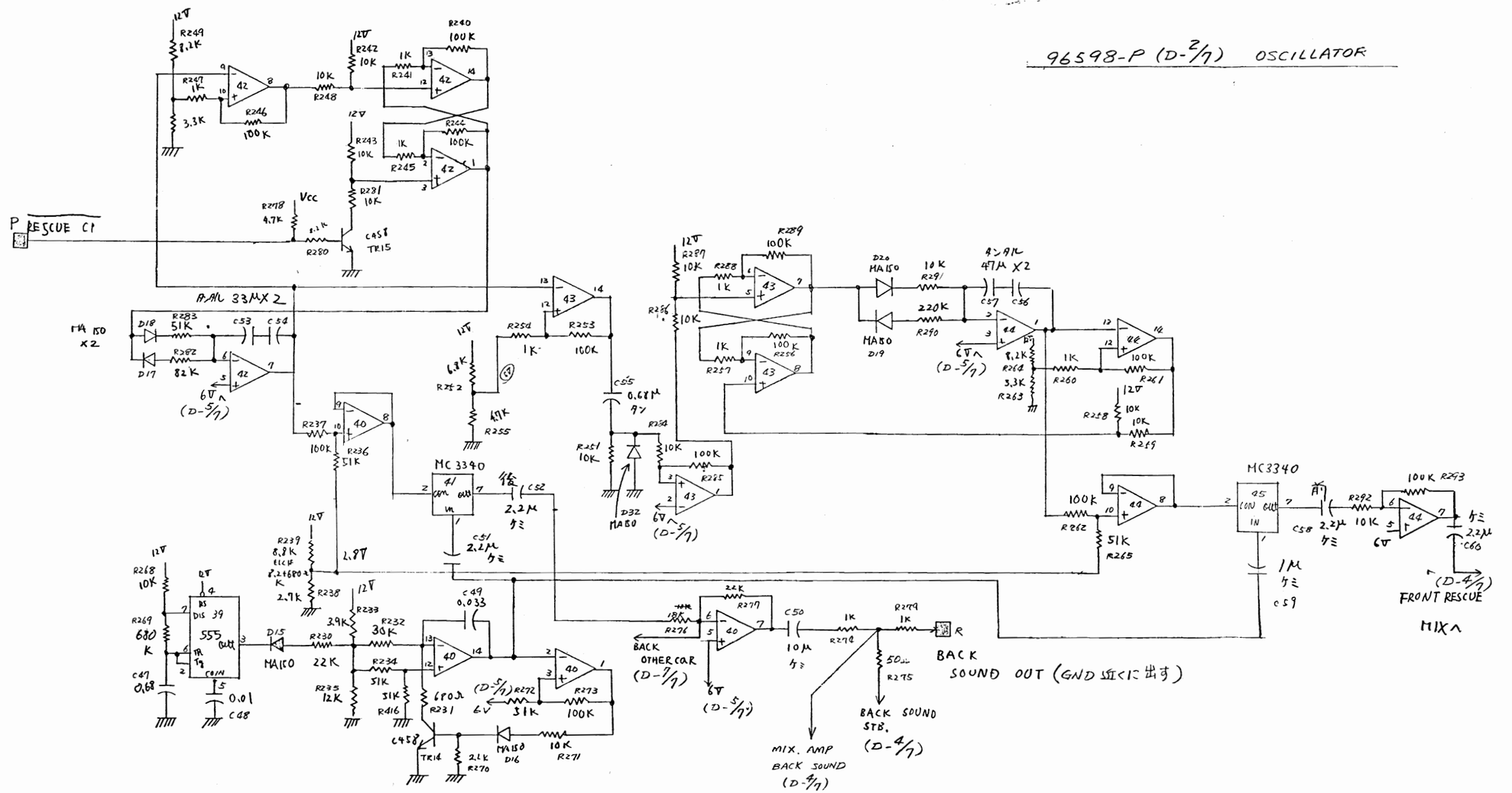
96598-P (D-1/7) OSCILLATOR

Ⓢ - MONACO GP

OP AMP LM324

RESCUE CAR

96598-P (D-2/7) OSCILLATOR



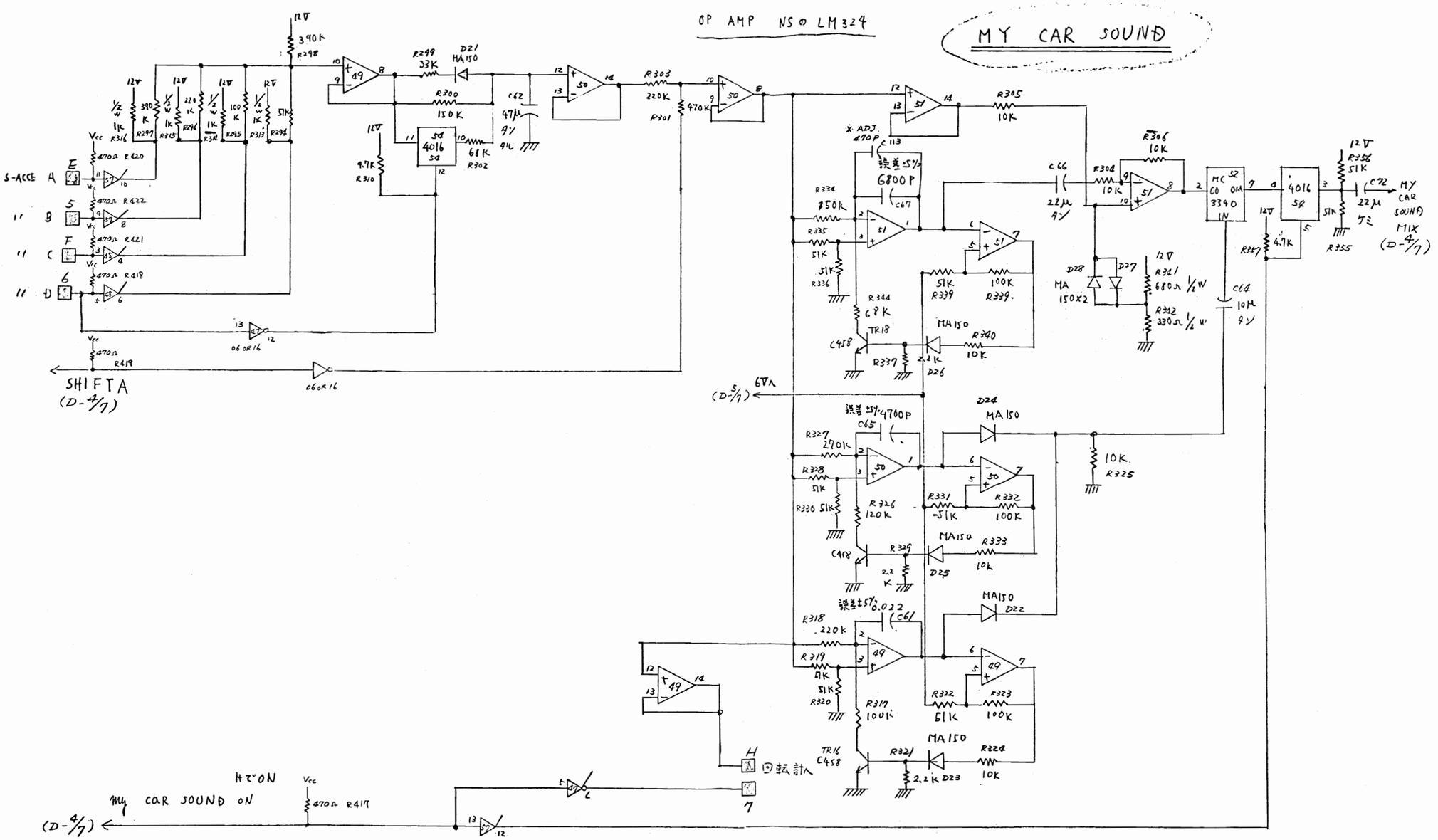
LM324 4コ
555 1コ
MC3340 2コ

AUG 3 0 1979

S MONACO GP

OP AMP NSの LM324

MY CAR SOUND



LM 324 × 3
04 × 1
07 × 2
3340 × 1

96598-P (D-3/7) OSCILLATOR

回転計内部 メーター類のランプは12V ACまたはDC

15 KΩ 750μA

AUG 30 1979

Ⓢ - MONACO GP

AM1 S2688 NOISE OSC は この周辺回路は AUDIO回路 からはなすこと

MIXER

AM1 S2688 (D-1/7)

LM324

MC3340

DIP SW 2 (4P)

SOUND OUT (GND近くに出す)

EXTEND CP.

NON ROAD GRAVEL

CAR HI SOUND SCORE OUT (D-3/7)

SCORE SOUND OUT (D-5/7)

SLIP ZONE SOUND (D-1/7)

RESCUE (D-2/7)

PRINT OTHER CAR (D-3/7)

BACK SOUND (D-2/7)

S — ACC1

- COIN IN

NON ROAD & POOL SLIP

game

SHIFT

(D-3/7) MY CAN SOUND ON

(D-3/7) SHIFT A

BACK SOUND STB. (D-2/7)

14 EX, CP

96598-P (D-4/7) OSCILLATOR

⑤ MONACO GP

FANFARE

ドの時 262 Hz
ミの時 330 Hz
ソの時 392 Hz

各 6V へ
(D-1/7), (D-2/7)
(D-3/7) (D-6/7)

HI SCORE

MUTE

TL 081 4
LM 324 3
3340 1
ﾀｲﾏ 1
132 1
334 x1
188 x1
02 x1
04 x1
17 x2
163 x1

(D-4/7) ｶﾝｼｭｰﾄｰﾙ

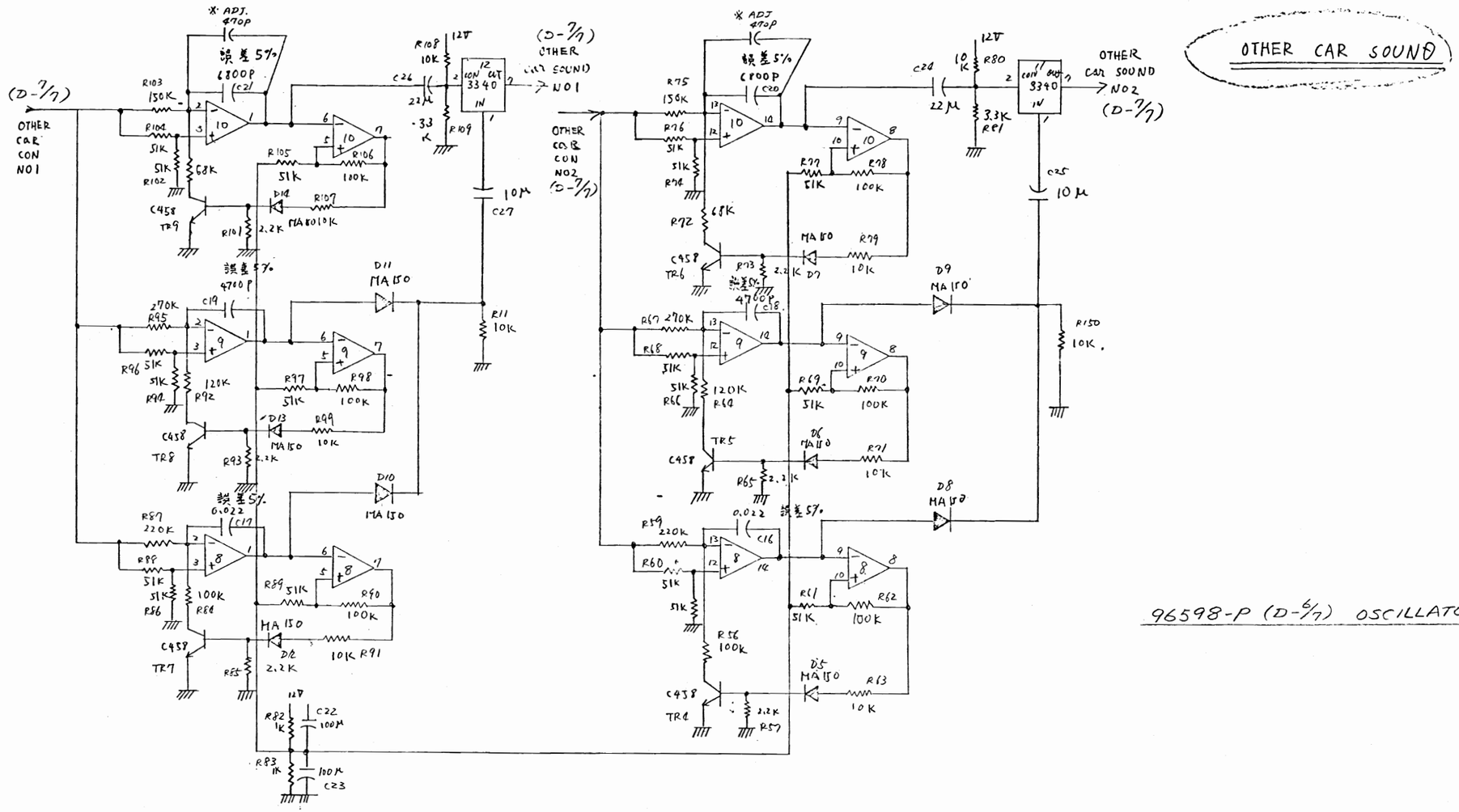
(D-4/7) HI SCORE SOUND out

17 7

96598-P (D-5/7) OSCILLATOR

⑤- MONACO GP

OP AMP は LM 324 NS製の用



OTHER CAR SOUND

96598-P (D-6/7) OSCILLATOR

LM 324 ×3

MC 3340 ×2

AUG 30 1979

Ⓢ MONACO GP

96598-P (D-7/7) OSCILLATOR

OTHER CAR CONTROL,

(D-3/7)
S-ACCE B
〃 C
〃 D

TRIG C
F SOUND

TL081 22μ×2 誤差5%

LM324

4016 3340 339 324 081 の電源は12V

(D-6/7) CAR CON. NO1

(D-4/7) FRONT OTHER CAR MIX へ

NO1 CAR SOUND (D-6/7)

後 BACK OTHER CAR (D-2/7)

CAR CON. NO2 (D-6/7)

NO3 CAR SOUND (D-6/7)

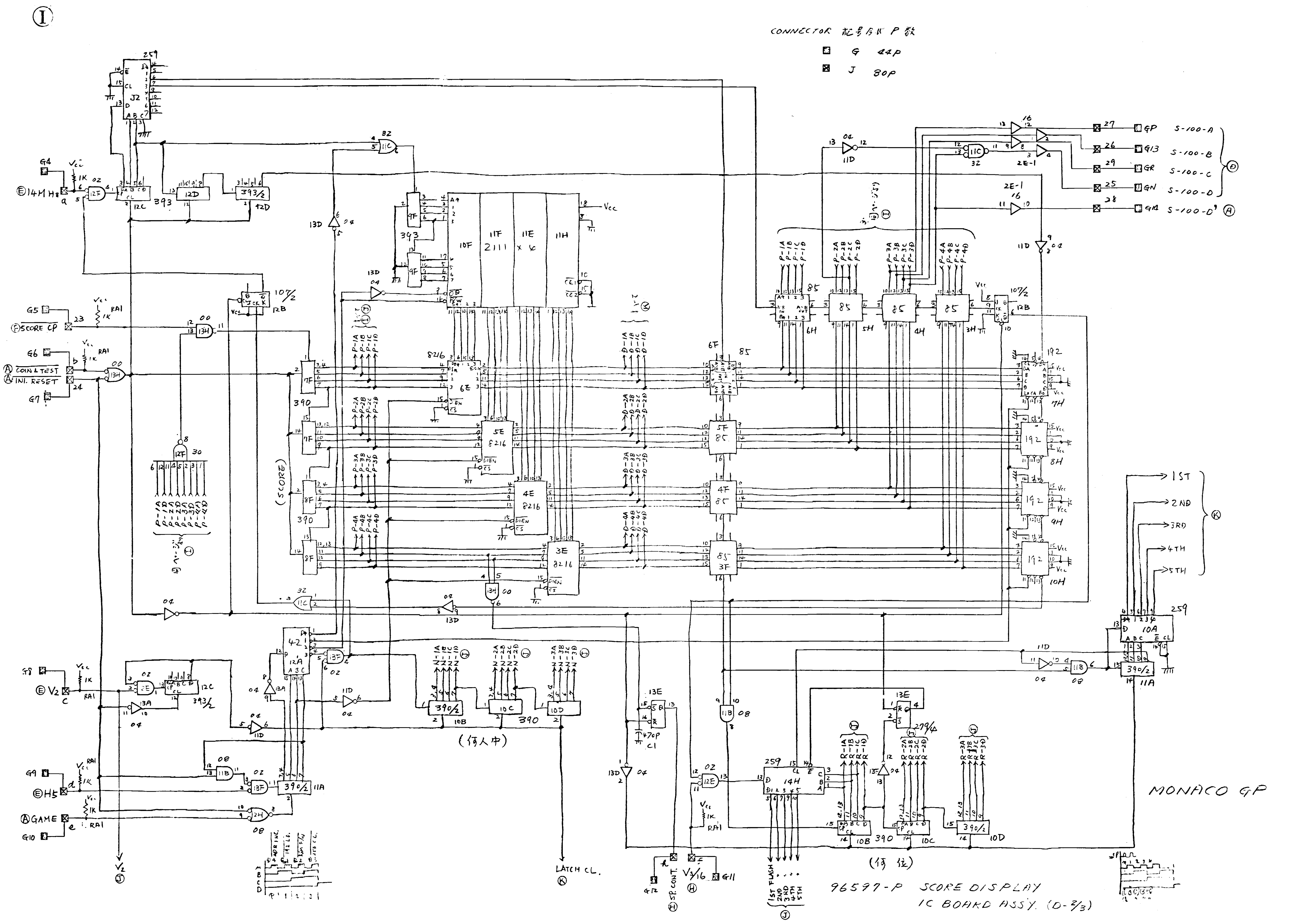
MC3340

LM339

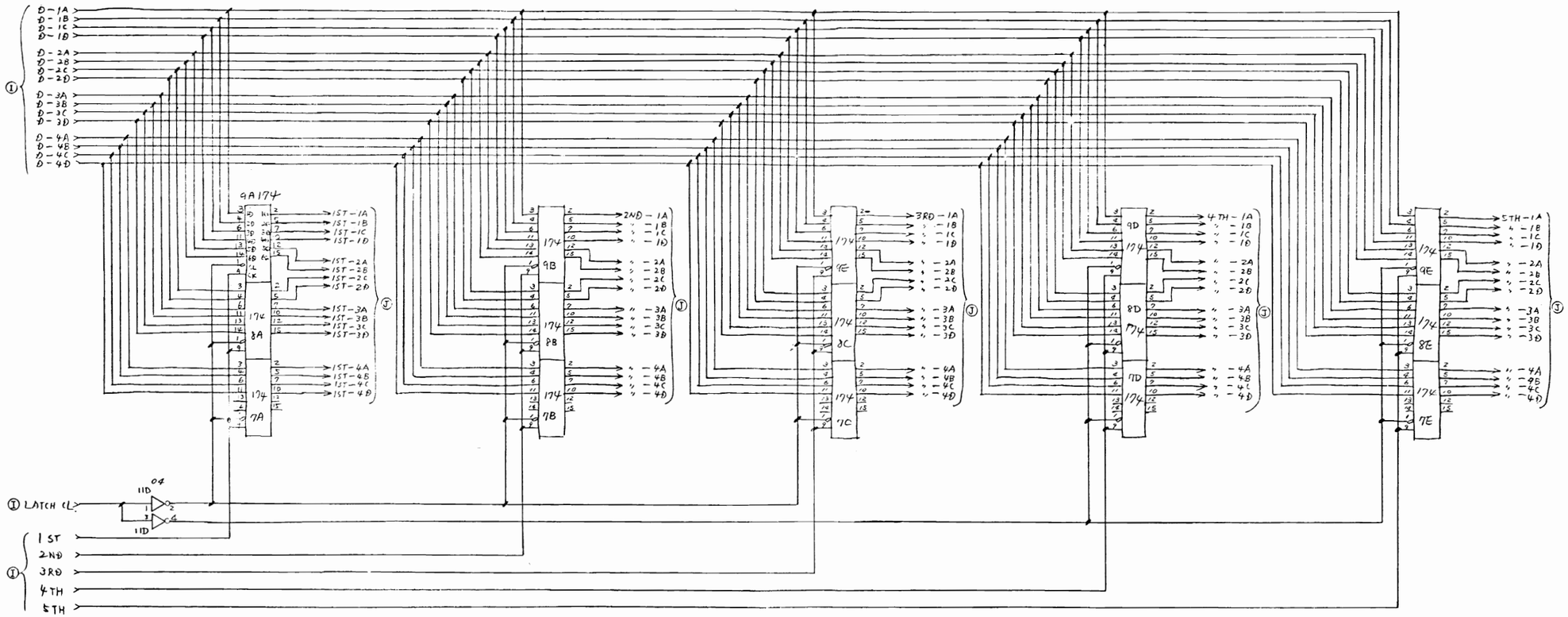
C458 TR11 TR13 TR10

74145 × 1	4016 × 3 コ
123 × 2	3340 × 7 コ
27 × 1	LM 339 × 3
04 × 1	LM 324 4
TL 081 × 2	

AUG 3 0 1979



Ⅰ
CONNECTOR 記号及び P数
G 44P
J 80P
MONACO GP
96597-P SCORE DISPLAY
IC BOARD ASSY. (D-2/3)
14M H8
SCORE CP
COIN & TEST
INI. RESET
V2
H5
GAME
LATCH CL.
SP. CONT.
V3/16
1ST FLASH
1ST
2ND
3RD
4TH
5TH
S-100-A
S-100-B
S-100-C
S-100-D
S-100-D'
2111 x 6
(SCORE)
(得点中)
(得位)



96597-P SCORE DISPLAY IC BOARD ASS'Y. (D-3/3)

MONACO GP

J

LAMP V

LAMP RETURN

LAMPDRIVE 12V

×1000 ×100 ×10 ×1

1ST

2ND

3RD

4TH

5TH

YOUR SCORE

人中

1中

TIP-125

560Ω

1K RA

1ST FLASH

2ND FLASH

3RD FLASH

4TH FLASH

5TH FLASH

H CONNECTOR

K CONNECTOR

J CONNECTOR

7408

CP 393/2

ZF 45

1W 68Ω×7

75468

2A 2B 2C 2D 1A 1B 1C 1D 3A 3B 3C 3D 4A 4B 4C 4D 5A 5B 5C 5D 6A 6B 6C 6D

151

48

Vcc

GND

470M 6.3V

CONNECTOR 記号 AW P 数

G. 44P

H. 12P

J. 80P

K. 44P

MONACO GP

M0-4202
SCORE DISPLAY LED BOARD ASS'Y.

96620-P
SCORE DISPLAY
MOTHER BOARD ASS'Y.

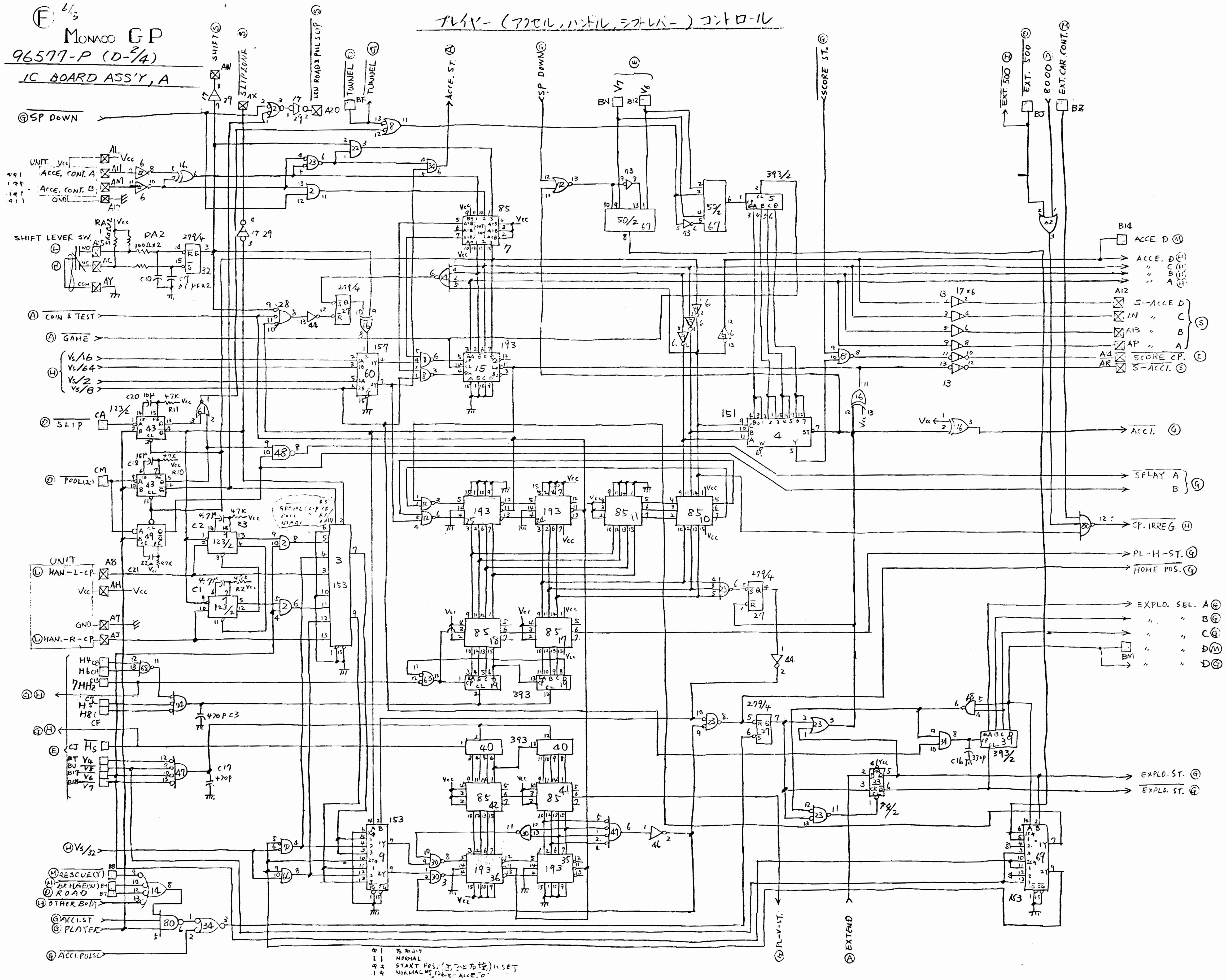
96597-P SCORE DISPLAY IC BOARD ASS'Y. (D-1/3)

A 1/13

MONACO GP 96577-P (D-1/4) IC BOARD ASS'Y, A

スタート タイマー コントロール

CAR CONT CL (H)
EXTEND (G)
EXTEND (M)
8 000 (F)
GAME (B)
COIN & TEST (F)
GAME (I)
GAME (F)
GAME (S)
COIN IN (B)
COIN IN (B)
COIN AUX (S)
COIN IN (G)
COIN A TEST (I)
INIT. RESET (I)
MUTE (S)
COIN METER
HISCORE (S)
EXTEND (M)
EXTEND (C)
EV. SIGNAL (B)
EV. OP (S)
(E) ACCEST
(M) GAME OVER
(I) S-100-D
RET.

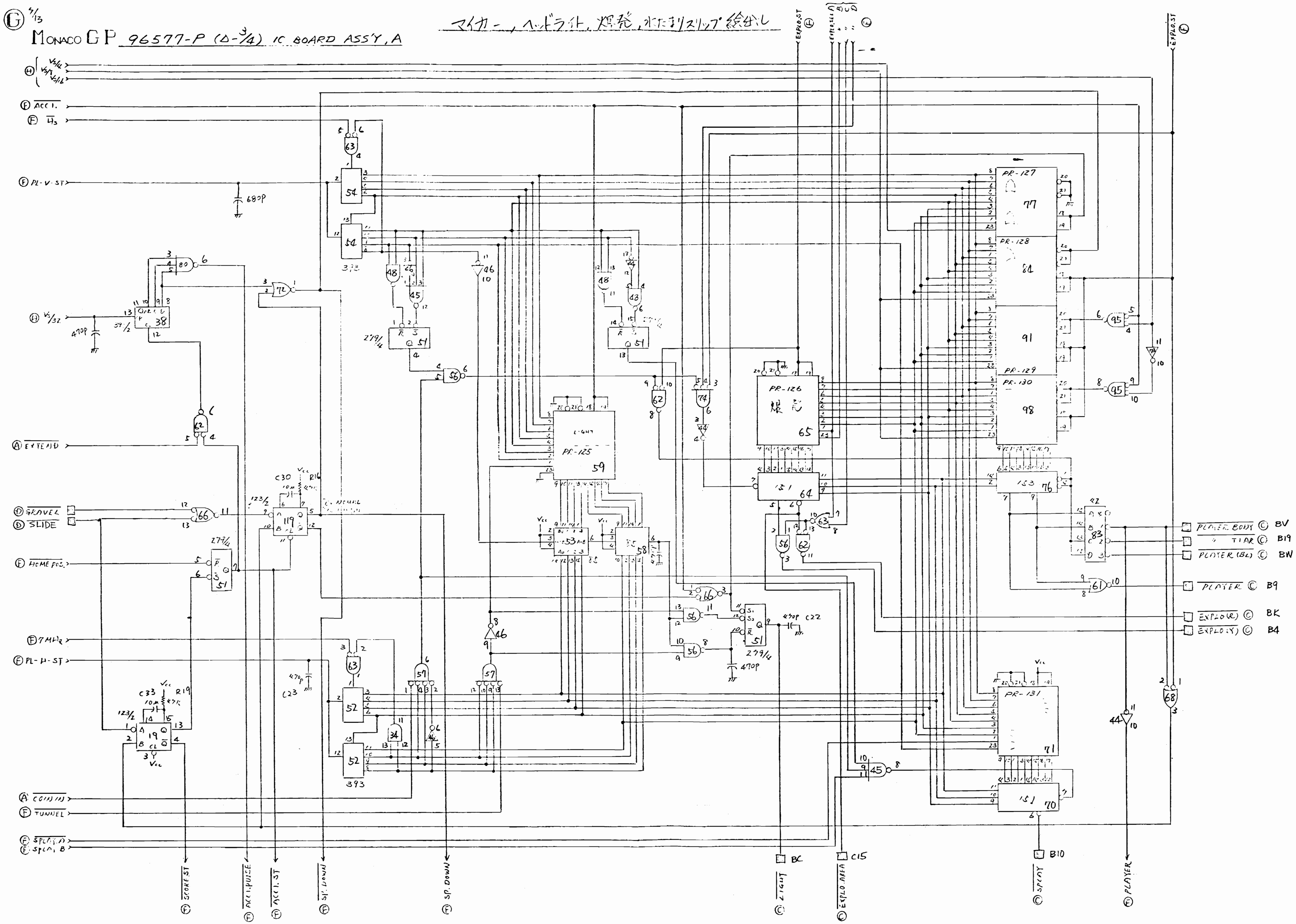


F 6/13
MONACO GP
96577-P (D-2/4)
IC BOARD ASS'Y, A
プレイヤー（アクセル，ハンドル，シフトレバー）コントロール
SP DOWN
SHIFT LEVER SW.
COIN & TEST
GAME
SLIP
UNIT
HAN-L-CP
HAN-R-CP
ACCE. ST.
SCORE ST.
EXT. 500
EXT. CAR CONT.
ACCE. D
S-ACCE. D
SCORE CP.
S-ACCI.
ACCI.
SPLAY A
SP. IRREG.
PL-H-ST.
HOME POS.
EXPLO. SEL. A
EXPLO. ST.
RESCUE(Y)
ROAD
OTHER BODY
ACCI. ST
PLAYER
ACCI. PULSE
EXTEND
TUNNEL

G 5/13

Monaco GP 96577-P (Δ-3/4) IC BOARD ASS'Y, A

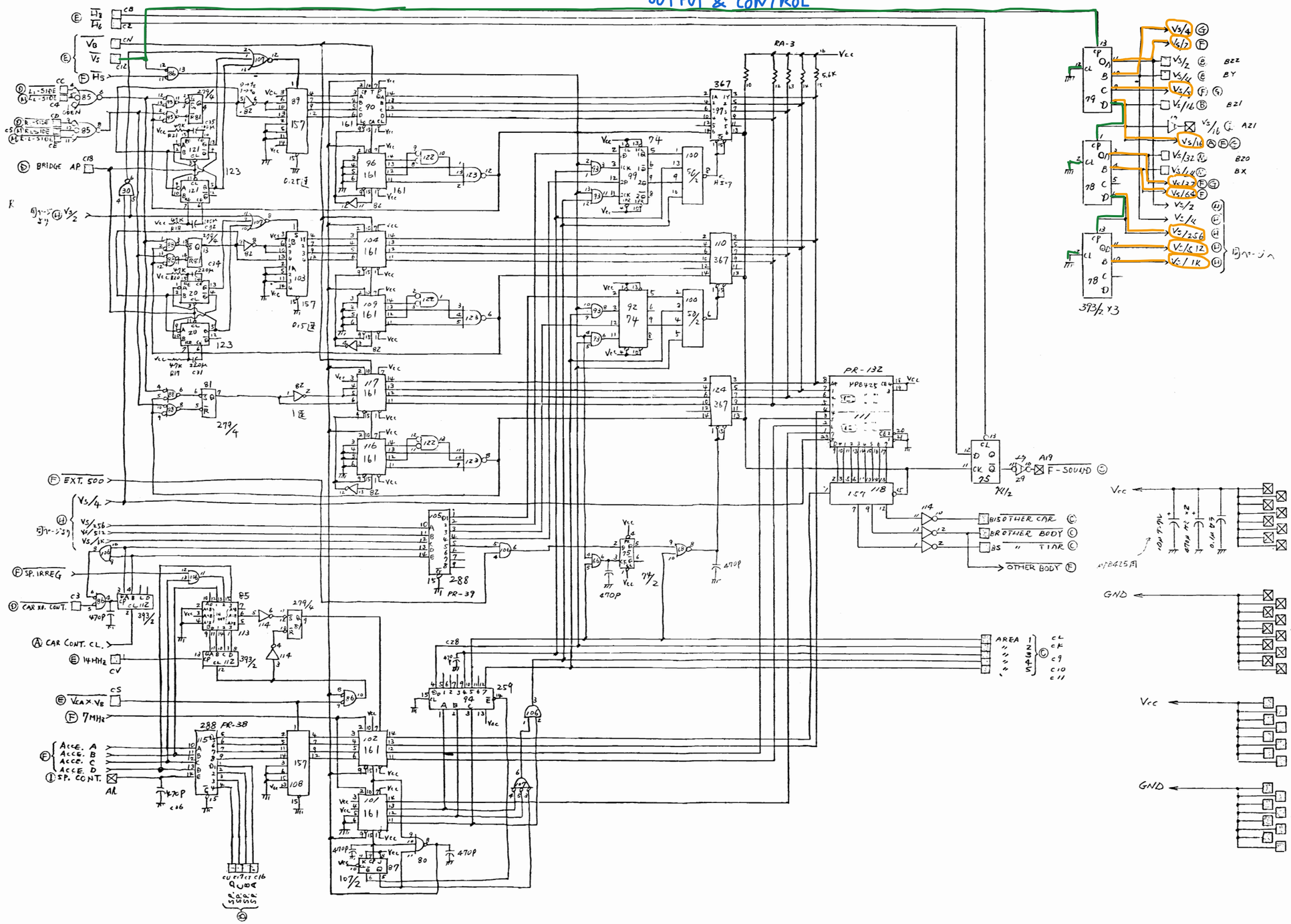
マイカー, ヘッドライト, 爆発, 水たまりスリップ 絵出し



MONACO GP 96577-P (D-4/4) IC BOARD ASS'Y, A

OTHER CAR の絵出しとコントロール

OUT PUT & CONTROL



Ⓑ 2/13

Monaco GP

96578-P (D-1/5) IC BOARD ASS'Y, B

PR-133
MPB-8158

Character Display
文字の表示

EXTENDED TIME
START 64
GAME OVER
DEPOSIT COIN

EXT. & GAME OVER
COIN & START

COIN IN
COIN IN
EX. SIGNAL
COIN IN
GAME
GAME

道路の"H"方向(画面のタテ方向)の動き
Movement of the road "H" dir. (vertical screen)

V-(1)×V8
220P
(MH)
470P C15
MH1Lo

SP. A
B
C
D

道路の"V"方向(画面のヨコ方向)の動き
horizontal

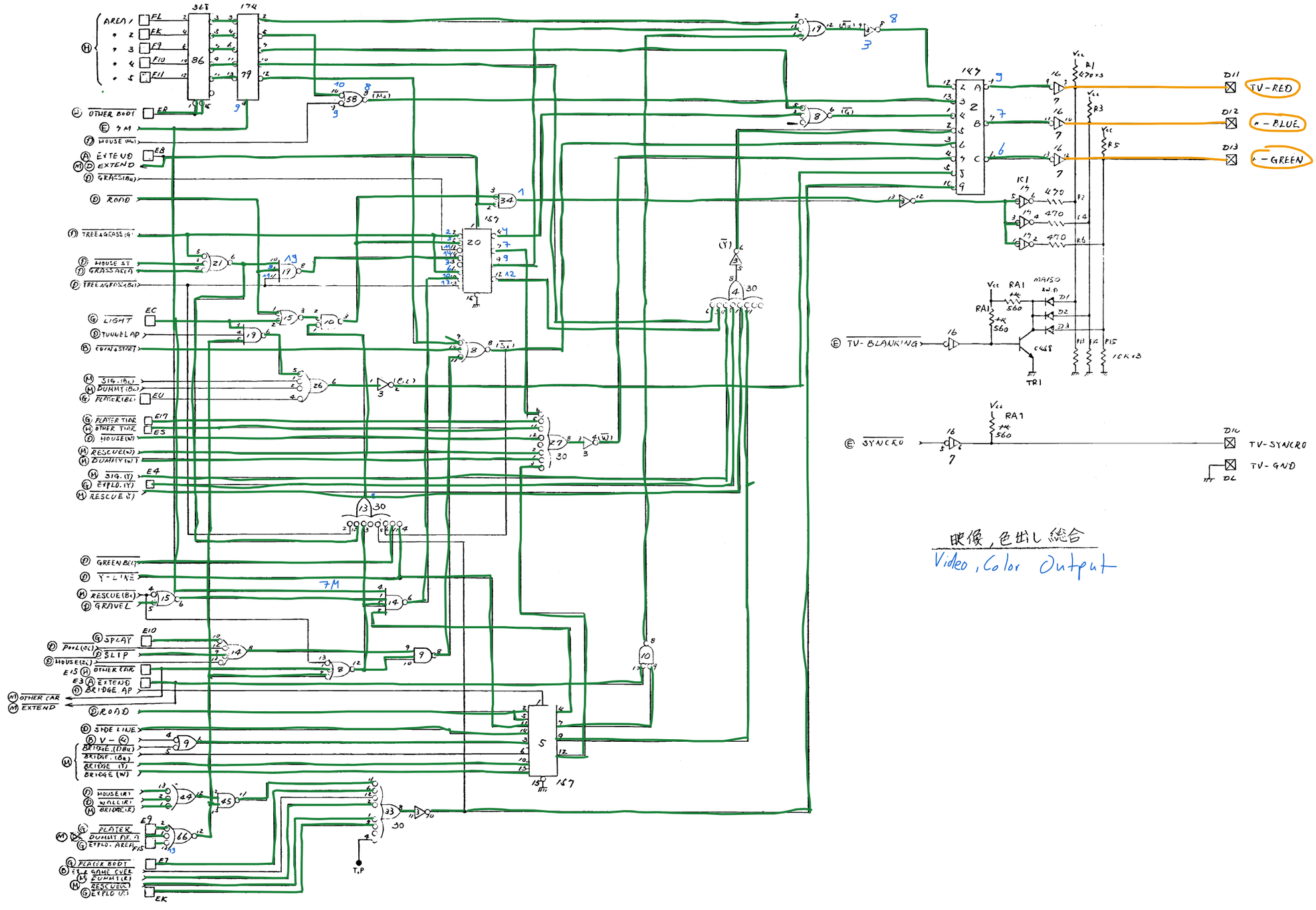
右側
Right side

左側
left

TUNNEL BR-DET
V8
V4/2
V4/4
EW
V4/4
V5
V6
V7
V4
V8
NT RESET
(M,V)
(M2V)
M2VLo
M1VLo
470P C12
470P C10
74 1/2
74 1/2

© 5/13

MONACO GP 96578-P (0-15) IC BOARD ASS'Y, B

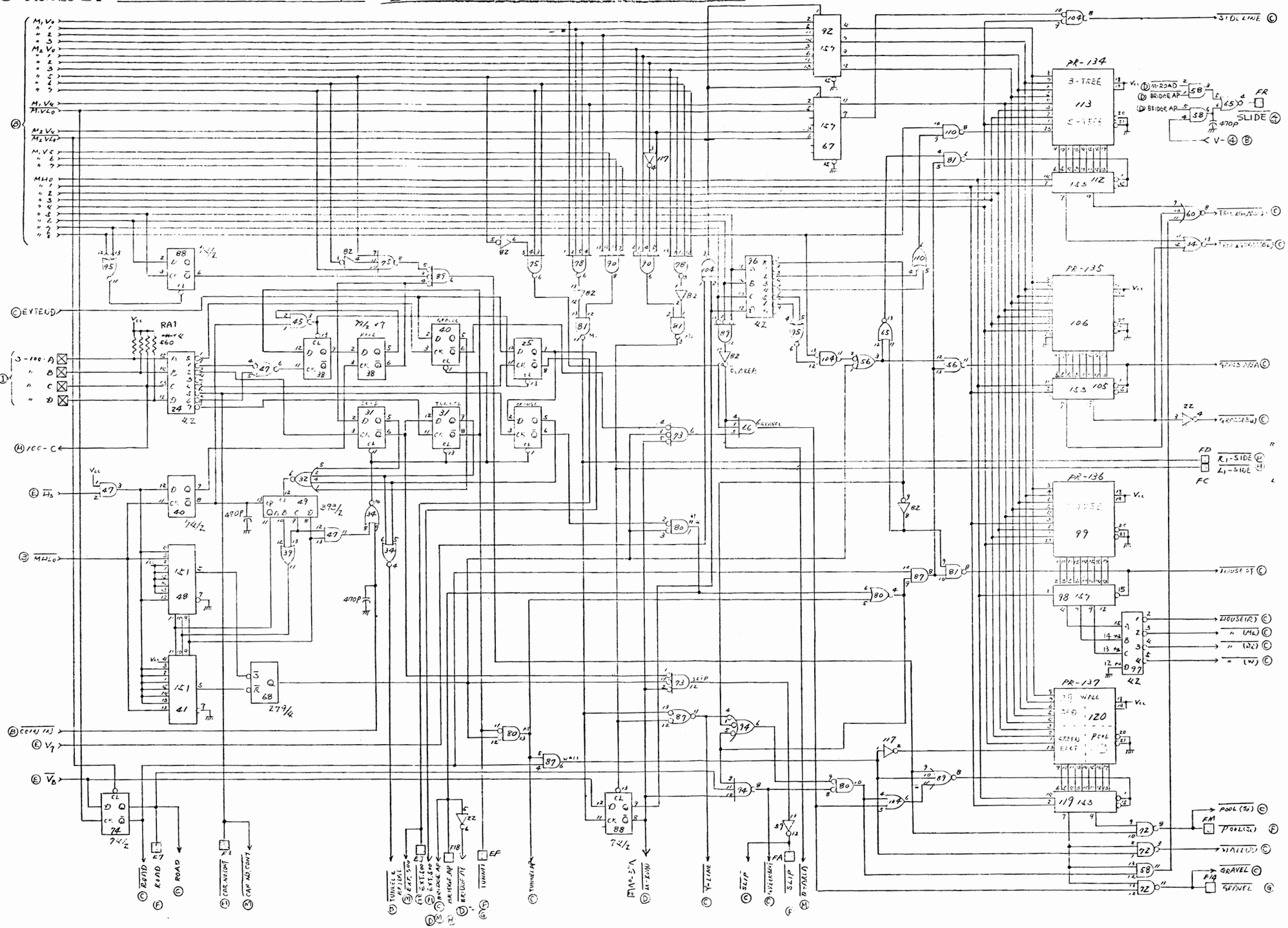


映像，色出し総合

Video, Color Output

MONACO GP 96578-P (D-3/5) IC BOARD ASS'Y, B

道路上の絵柄し(トンネル,橋,水たまり,ヒビ割れ etc)とコントロール



E 5/13

MONACO GP 96578-P (D-4/5) IC BOARD ASS'Y, B

同期信号

このLOGIC図内のICは
コネクタ E,Fの近くに配
置して下さい。

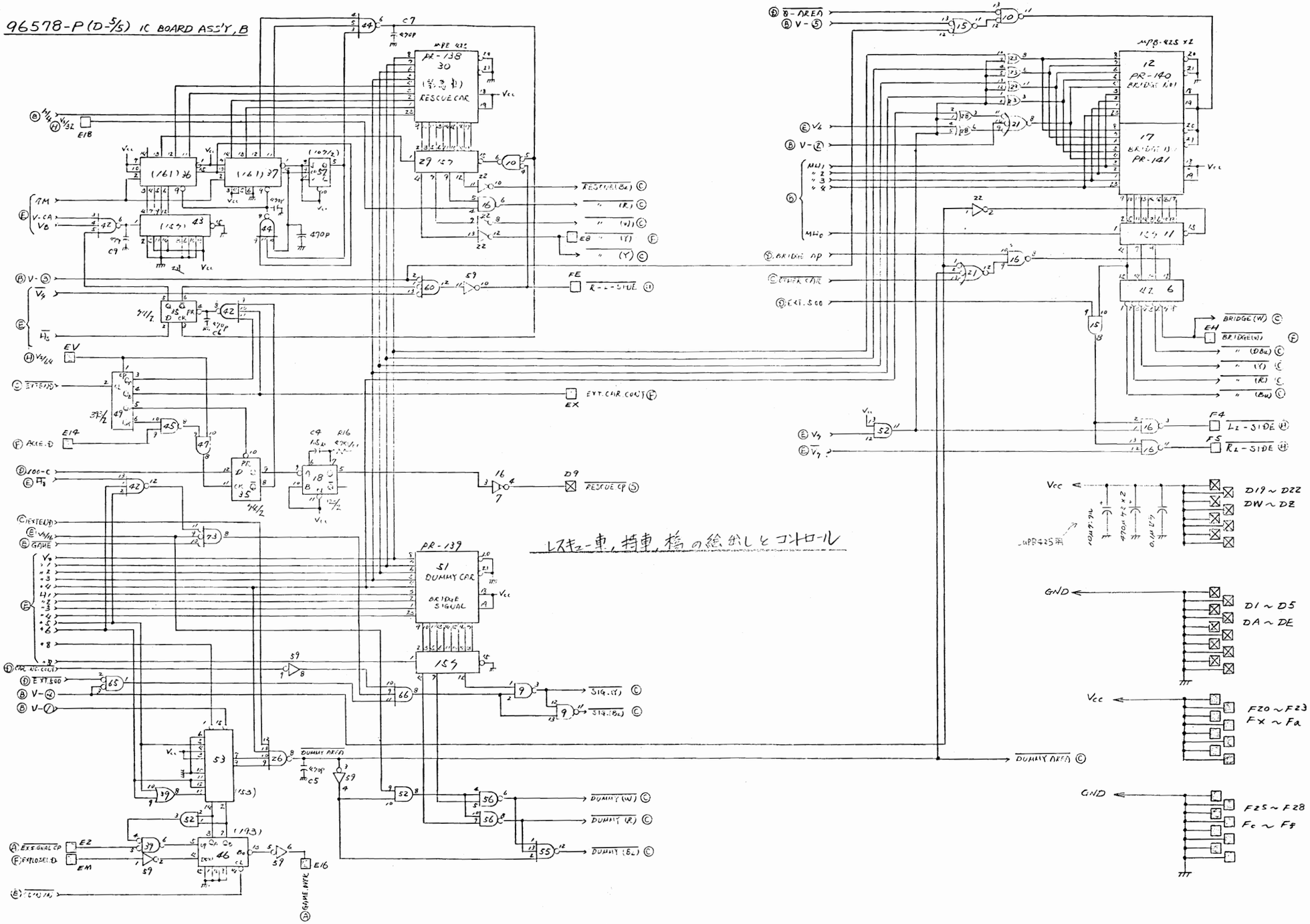
SYNCRO ©

TV-BLANKING ©

MONACO GP

96578-P (D-5/5) IC BOARD ASS'Y, B

レスキュー車、持車、橋の絵かしとコントロール



MONACO GP 96578-P (D-4/5) IC BOARD ASS'Y, B

同期信号