

MONACO GP™

STAND MODEL

MANUFACTURED BY

Gremlin®/SEGA®

MANUAL PART NO. 420-0445

OWNER'S MANUAL

MONACO GP

Stand Model



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.

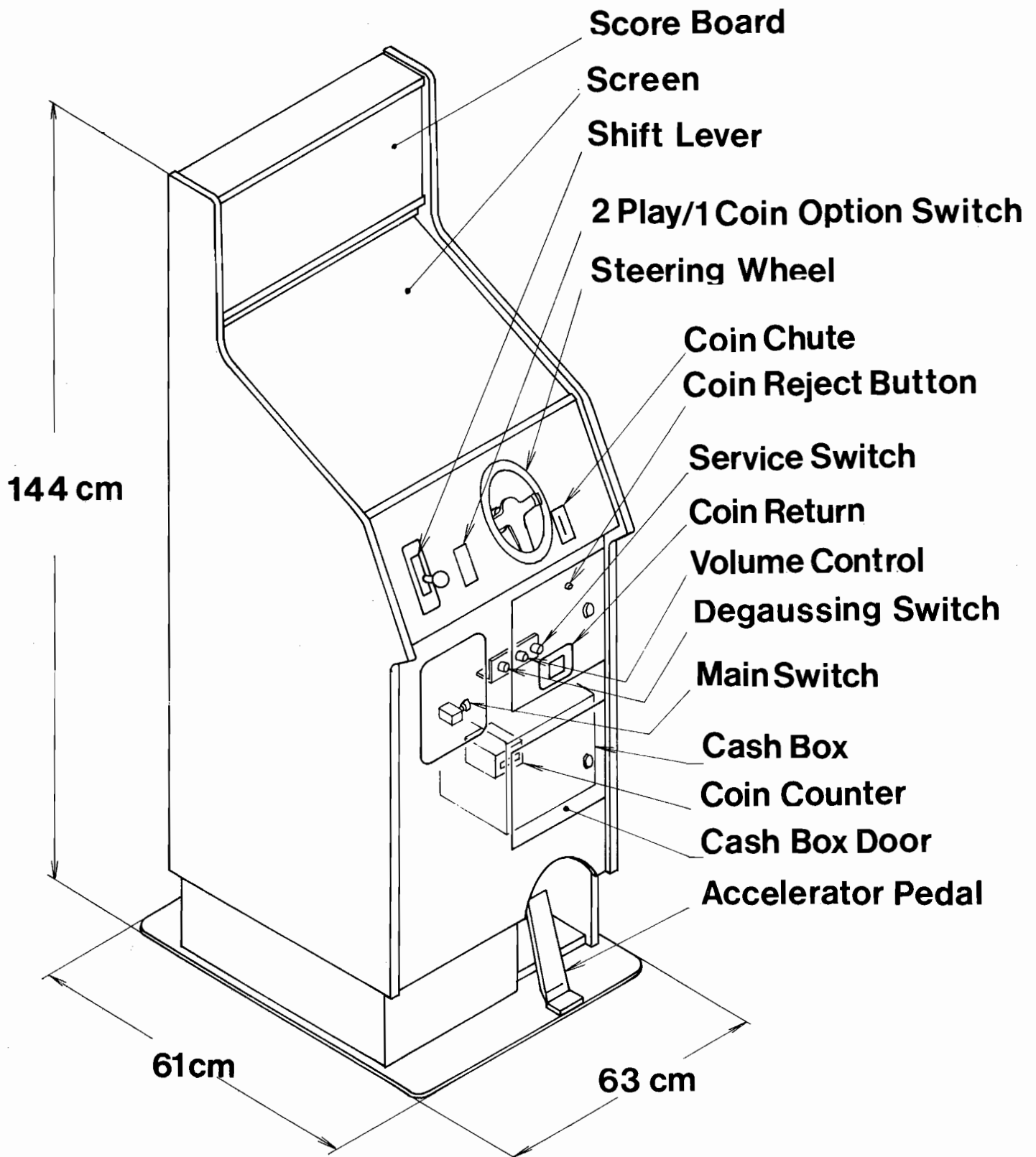
Also on this board are 2 switches, SW1 and SW2. SW1 should be set so that positions 1,2, and 3 are OFF. Position 4 should be ON.

Switch SW2 should be set to positions 1 and 2 OFF.

Descriptions and Part Numbers of MONACO GP logic boards:

<u>Logic board</u>	<u>Part Number Stamped on Board</u>
Main logic, A	96577-P
Main logic, B	96578-P
Sound (Oscillator)	96598-P
Display board	96597-P
Display board	M0-4202
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 connections 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 M0-0019 (Instruction & Switch Assy).

Reconnect harness following wiring diagram.

Drill a 1.5mm hole **over** the old hole on the Denominational Plate. Add new plate

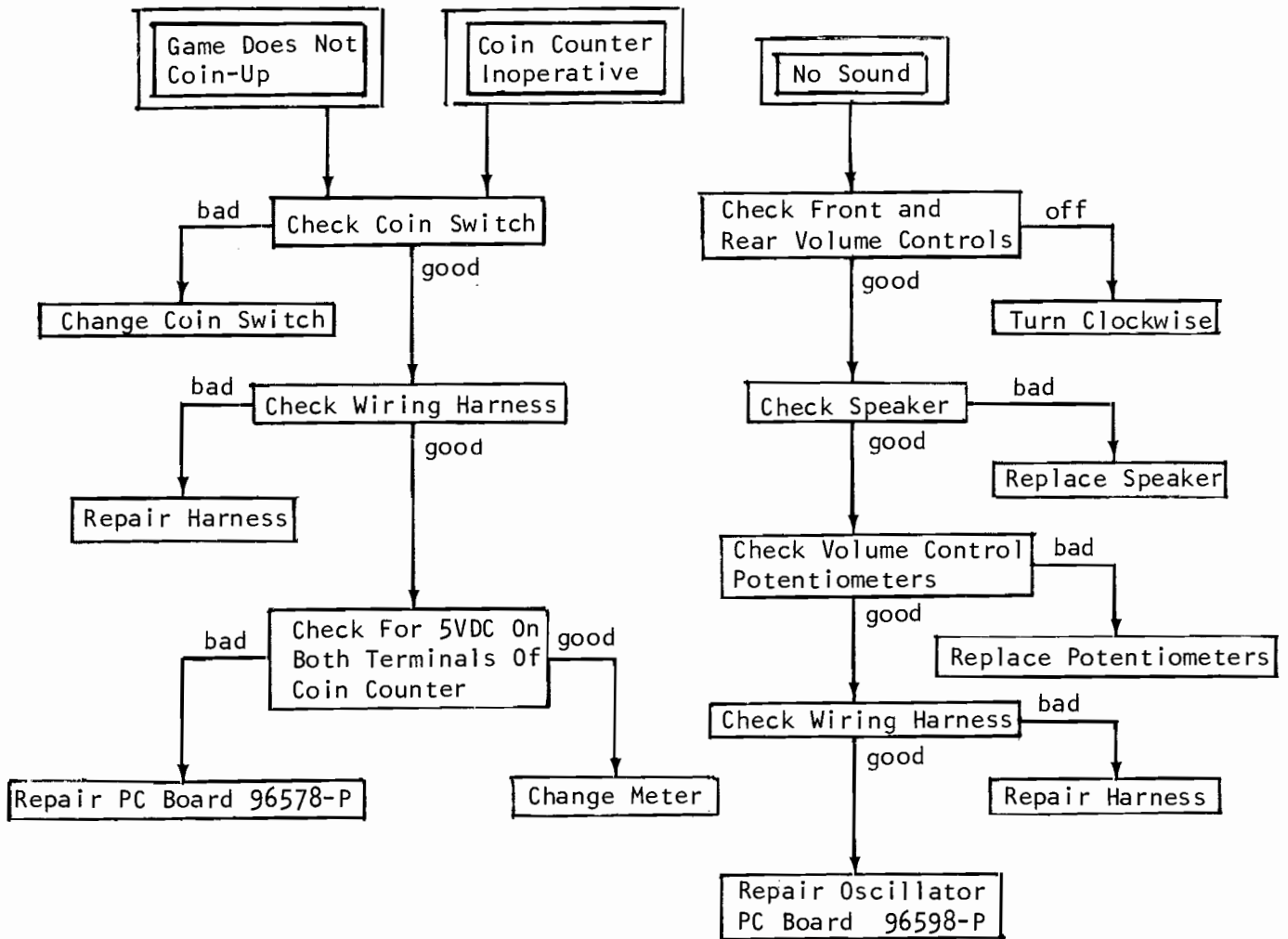
HELPFUL HINTS (cont.)

2 PLAY/1 COIN OPTION (cont.)

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

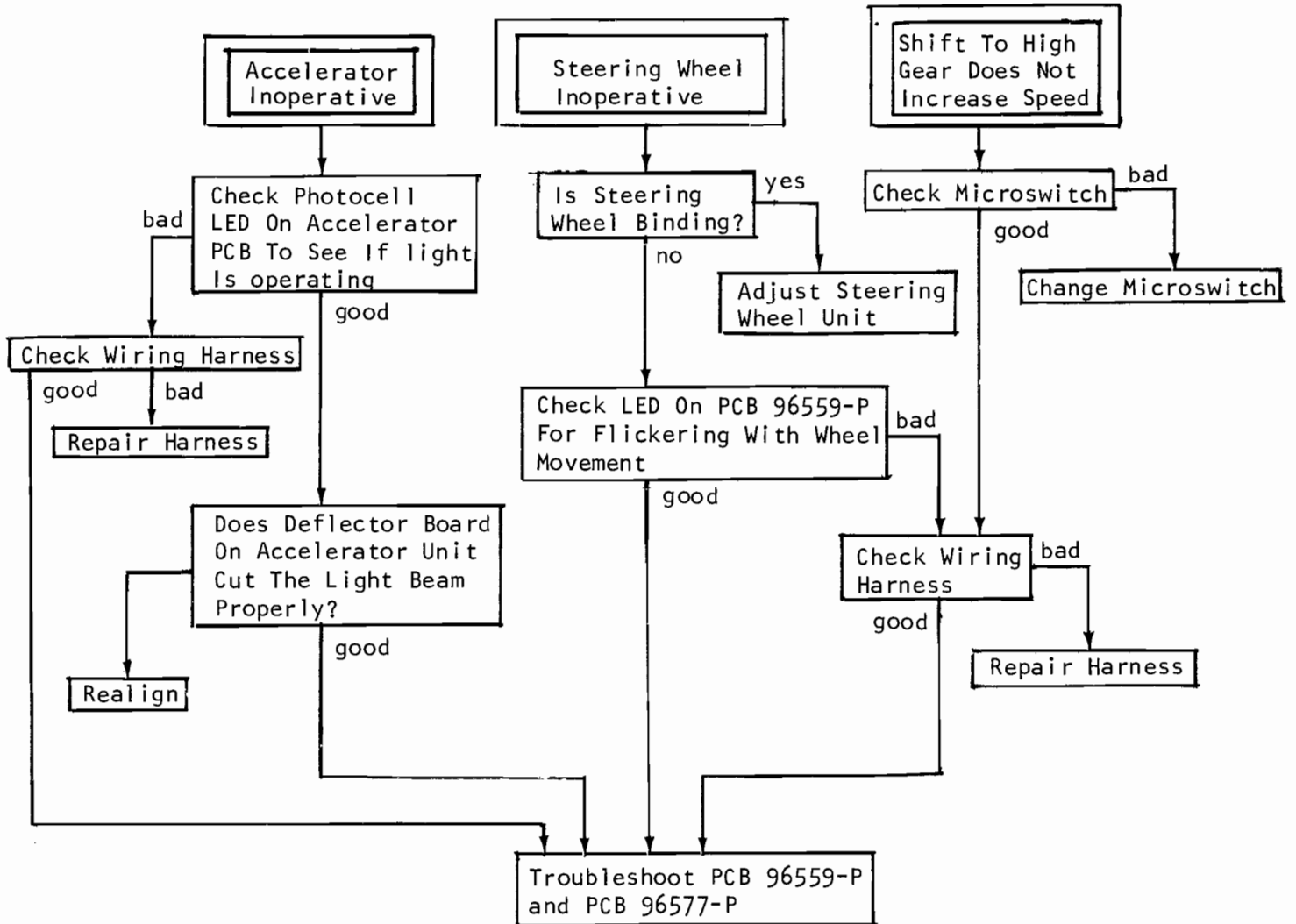
Set switch position to 2 PLAY on main
PCB 96577-P.

TROUBLESHOOTING
CHART 1

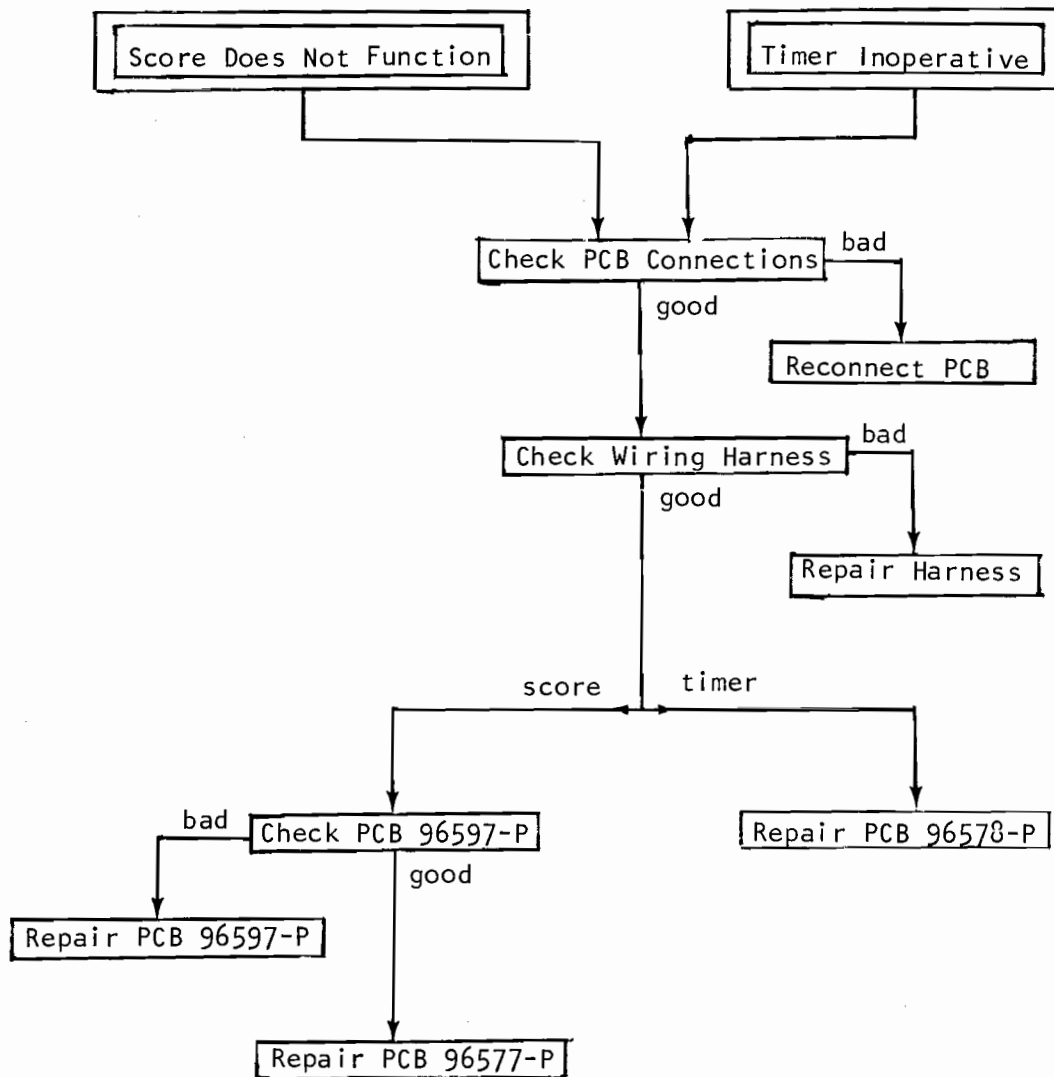


TROUBLESHOOTING

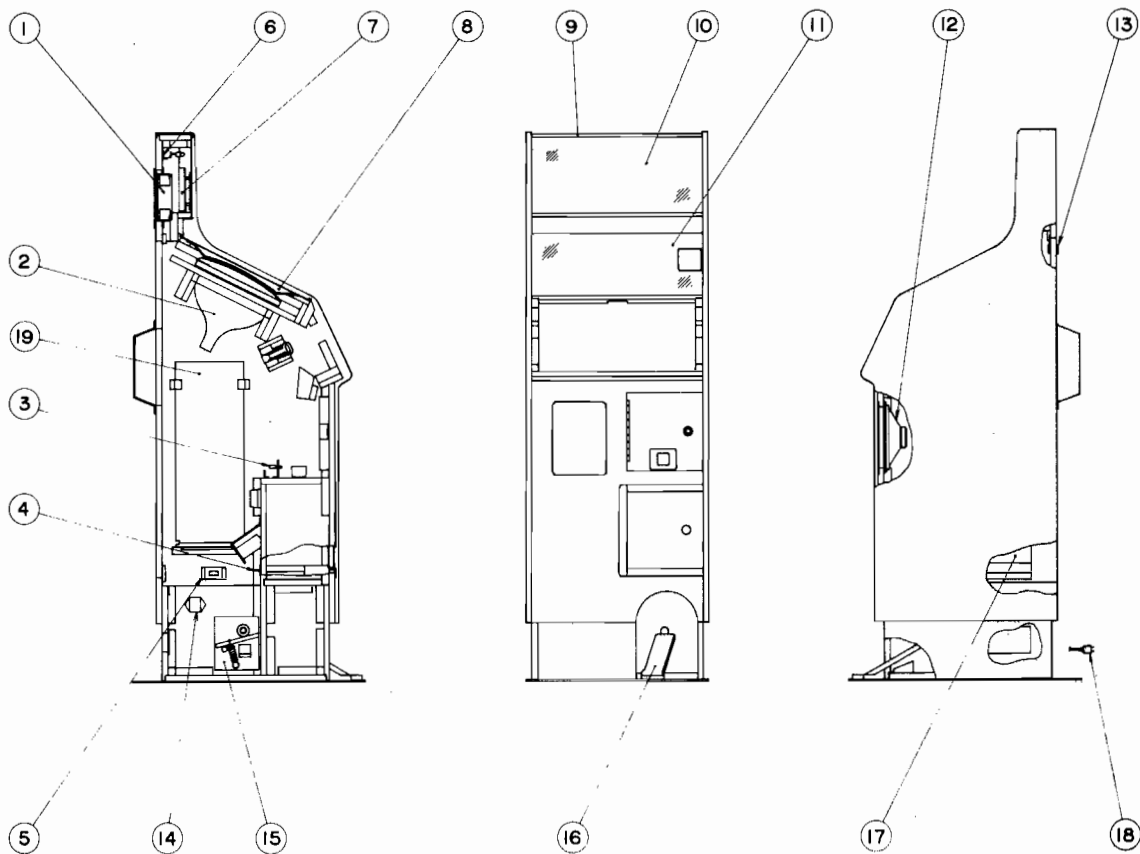
CHART 2



TROUBLESHOOTING
CHART 3

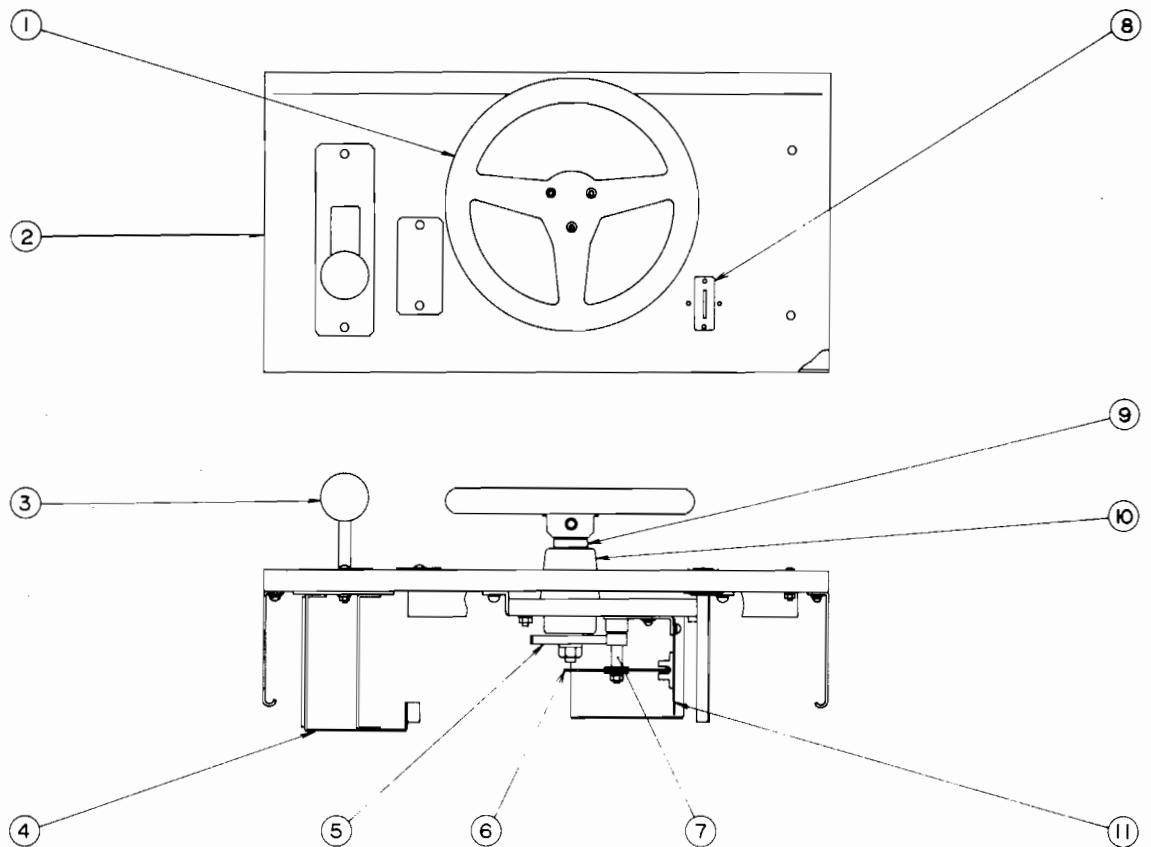


CABINET ACCESSORY ASSY



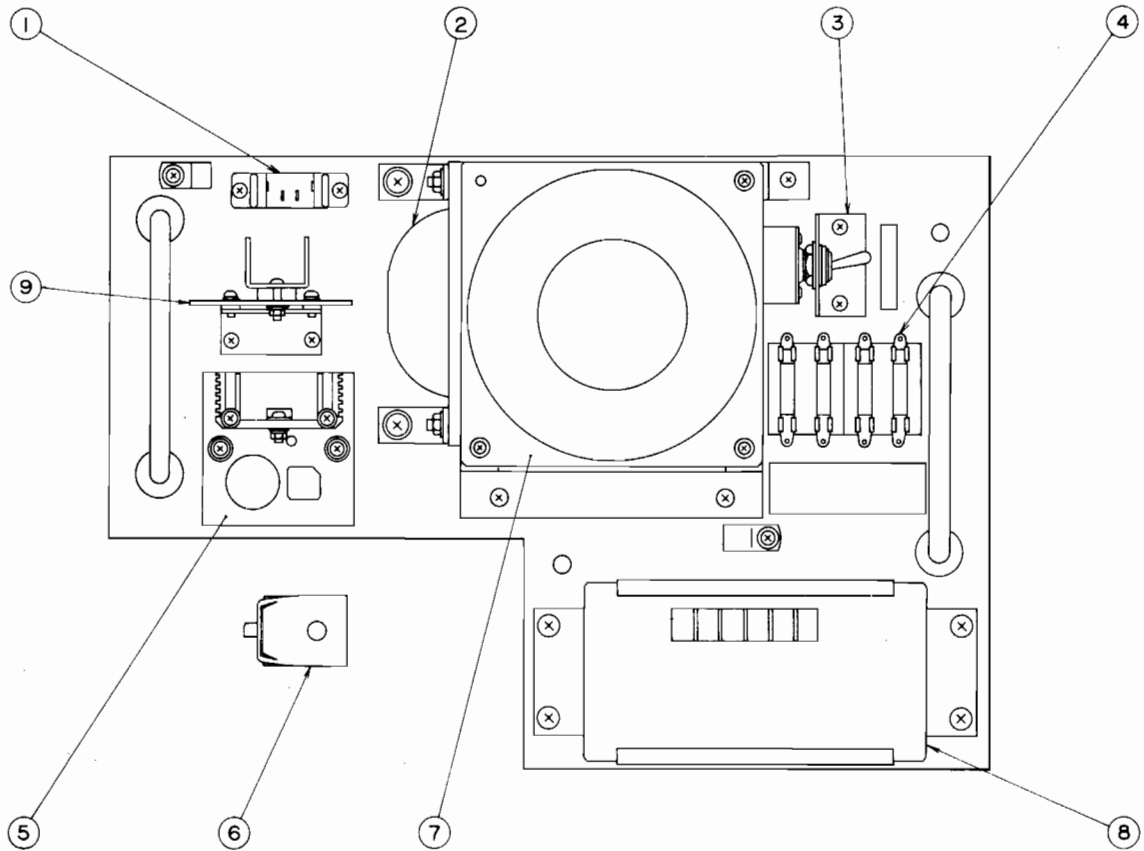
Item	Part No.	Description
1	S-96626	Axial Flow Fan, AC100V
2	CI-20006	Color Display Assy, 14H, 90
3	S-96477	Push Button Switch, 2T.
4	S-93157	Volume Control, B-25K Ω
5	S-91654	Rectifier, Silicon Diode
6	S-90834	Switch, Push Button Type
7	S-94428	Bulb, 6.3V, 0.25A
8	MO-42001	Score Board Assy
	S-96600	L.E.D., Numeric Display, Red
	S-96679	L.E.D., Numeric Display, 2 Digit, Red
9	DO-1021	Color TV Mask, 14
10	MO-1032	Ornament Frame
11	MO-1033	Top Glass
12	MO-1064	Front Glass
13	MO-1060	Play Instructions Plate
14	S-91359X	Speaker, 187x130mm, 8 Ω
15	LS-1064	Ace Cylinder Lock, L.S. Type
16	S-96634	Noise Filter, AC 250V, 4A
17	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
18	S-80807	Accelerator Pedal
19	96577-P	IC Board Assy, Monaco GP, A
	96578-P	IC Board Assy, Monaco GP, B
	96598-P	Oscillator, Monaco GP
	90759X	Cable & Plug Assy
	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, 10.3188ø
	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

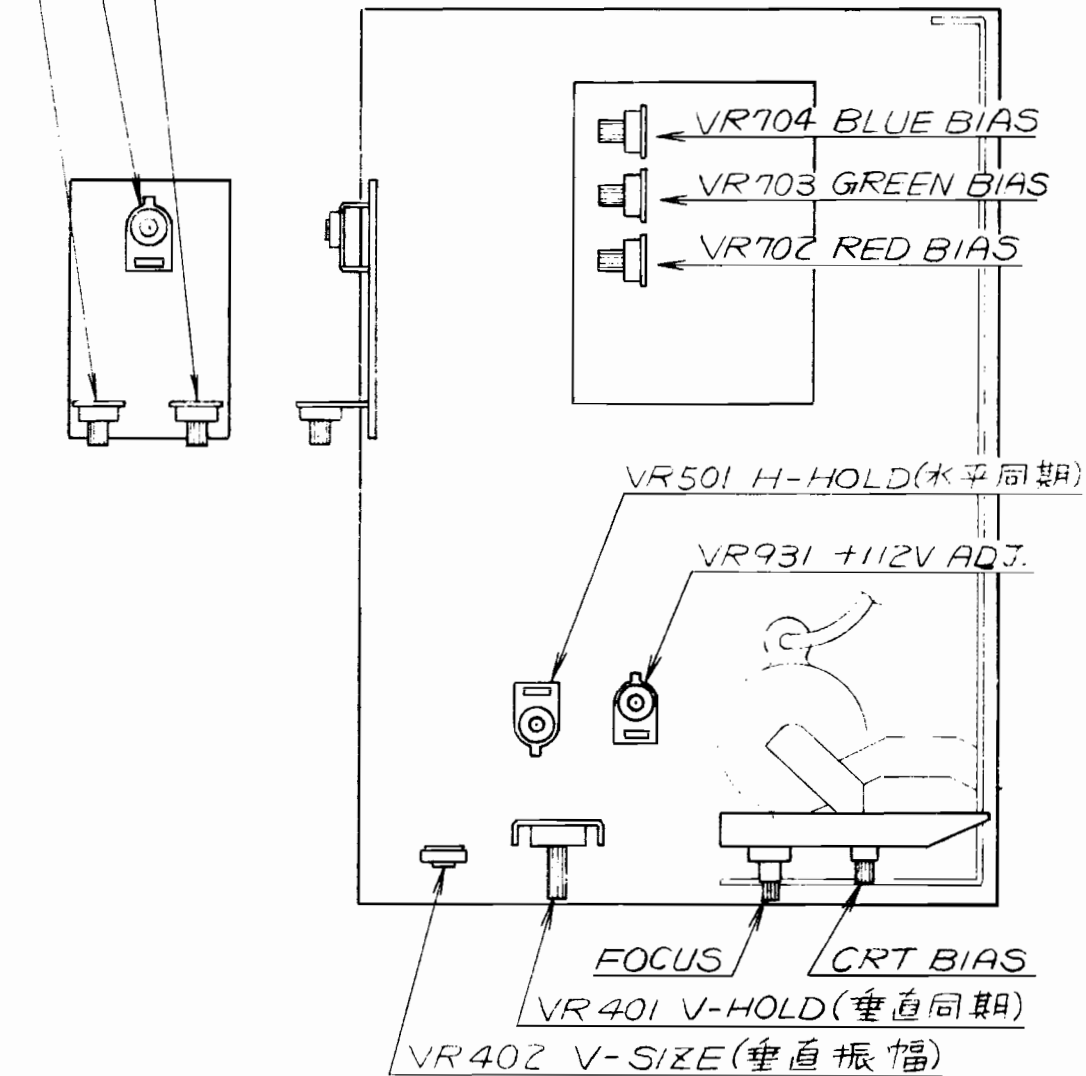
SUB-BRIGHT	R408	Monitor brightness
HORIZ WIDTH	L601 (CRT)	
VERT WIDTH	R517 (CRT)	
VERT POSITION	K502	Moves center to right
	K501	Center
	K503	Moves center to left
VERT HOLD	R515 (CRT)	
HORIZ HOLD	R616 (CRT)	
B+	R707	Adjustable from 90v to 105v
RED DRIVE	R807	
BLUE DRIVE	R809	
RED BIAS	R813	These three 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

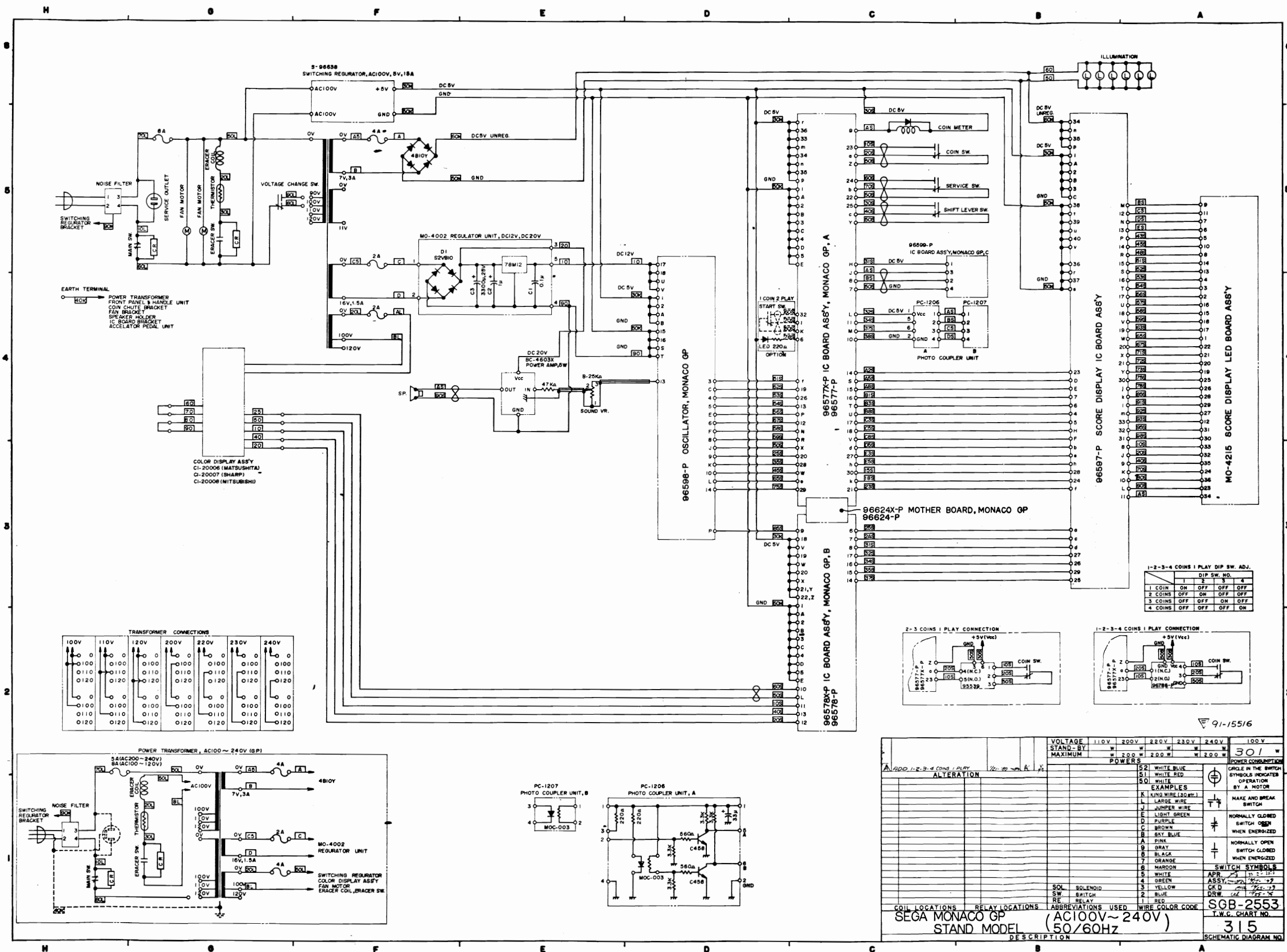
VR463 UPPER PINCUSHION CONTROL (上側系巻歪補正)

VR461 BOTH SIDE PINCUSHION CONTROL (両側系巻歪補正)

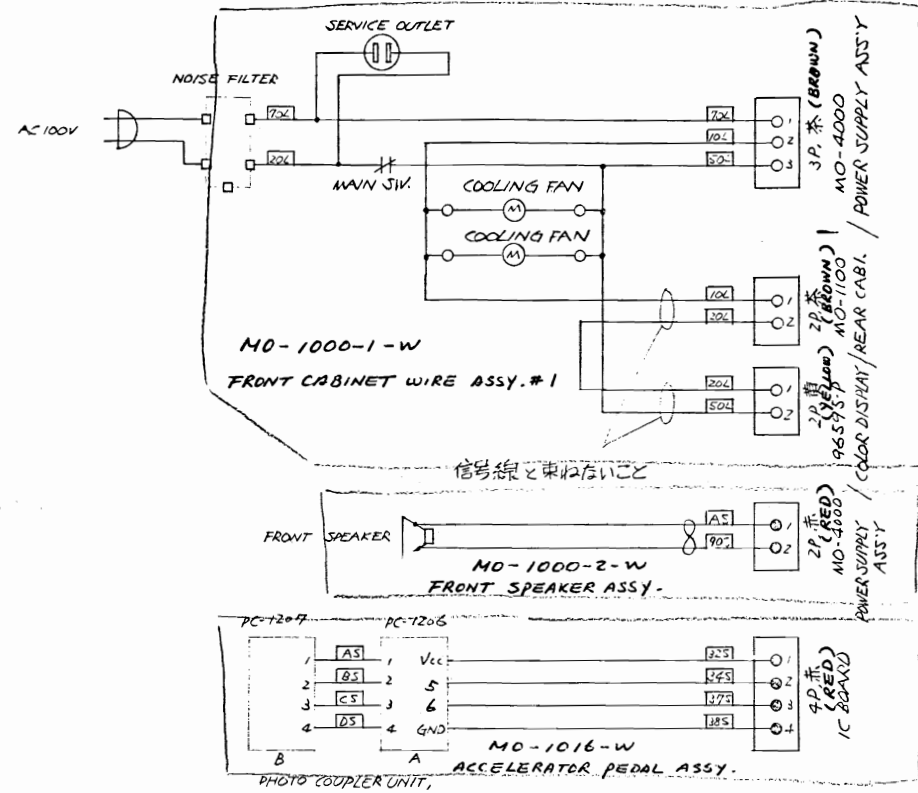
VR462 LOWER PINCUSHION CONTROL (下側系巻歪補正)



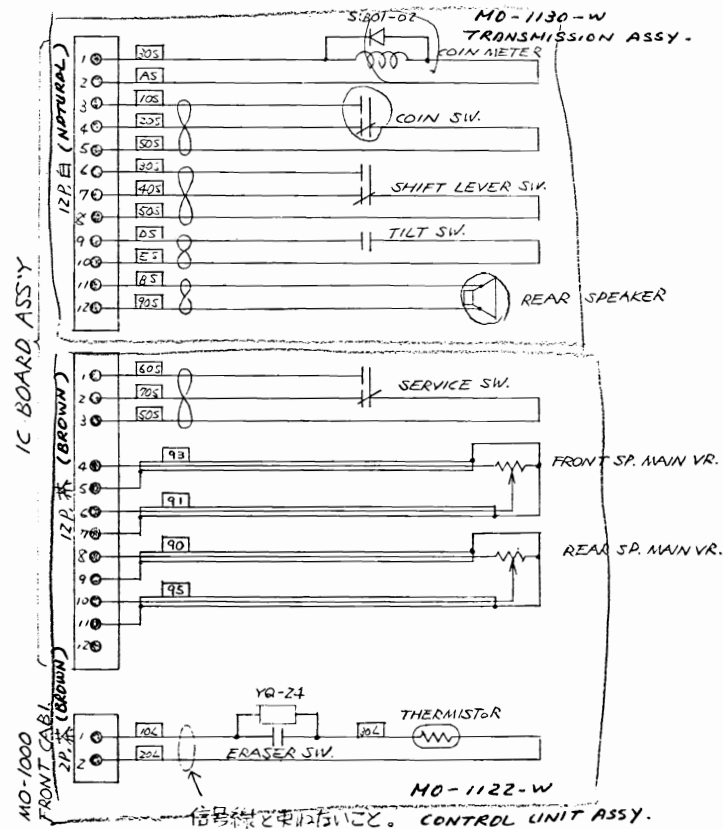
S-9659Z-P COLOR DISPLAY, 14H TYPE
(MITSUBISHI 919C049-3)



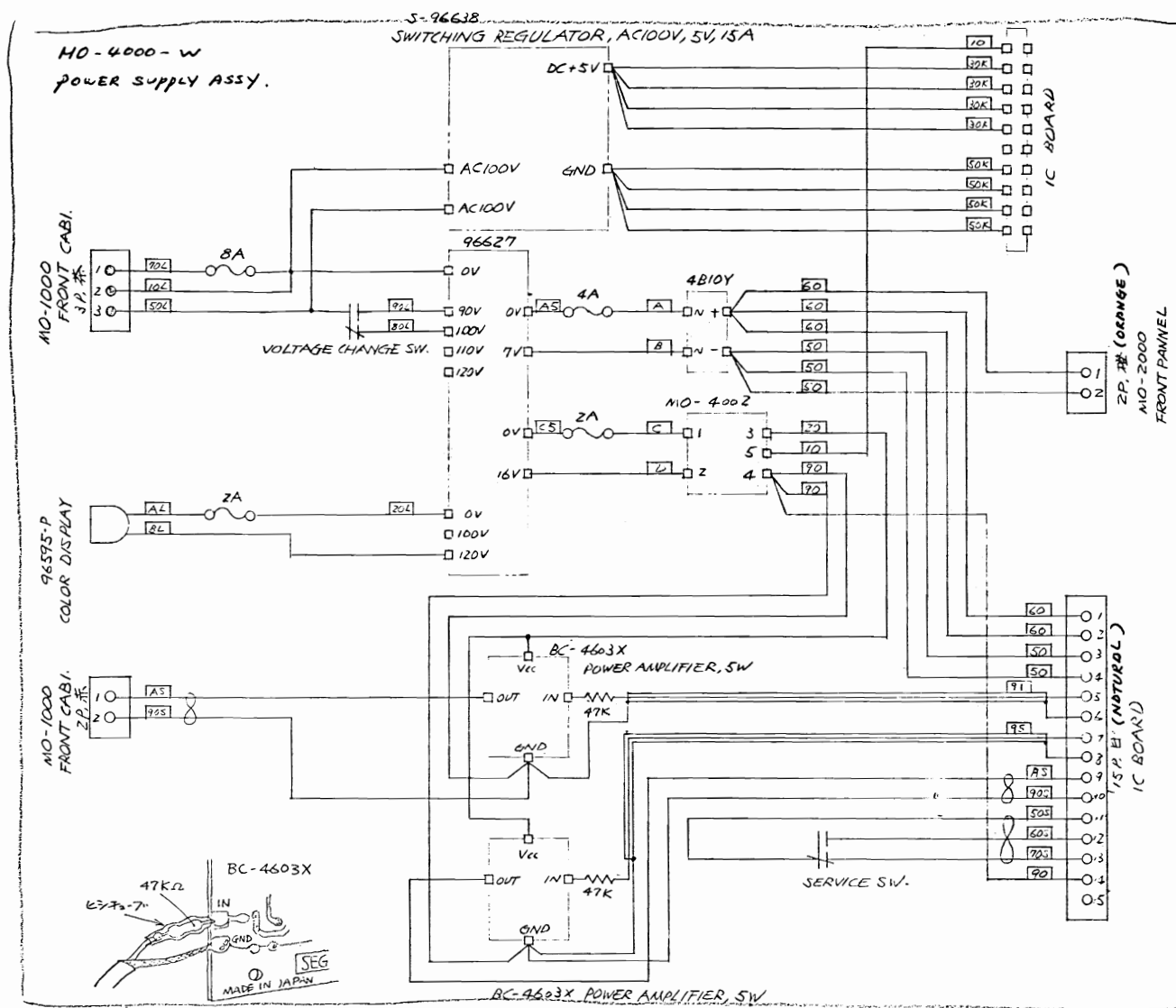
MO-1000 FRONT CABINET ACCESSORY ASS'Y



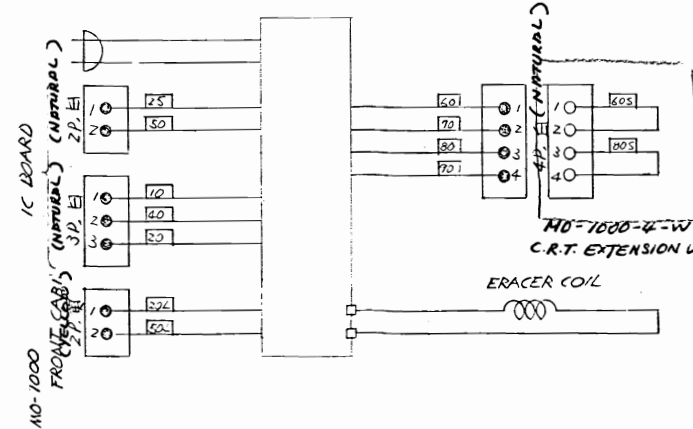
MO-1100 REAR CABINET ACCESSORY ASS'Y



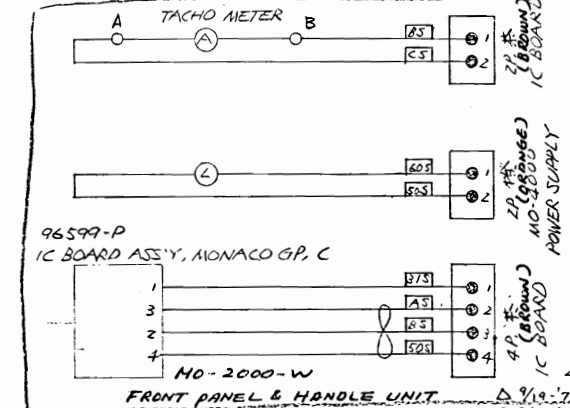
MO-4000 POWER SUPPLY ASS'Y



96595-P COLOR DISPLAY ASS'Y



MO-2000 FRONT PANNEL & HANDLE ASS'Y

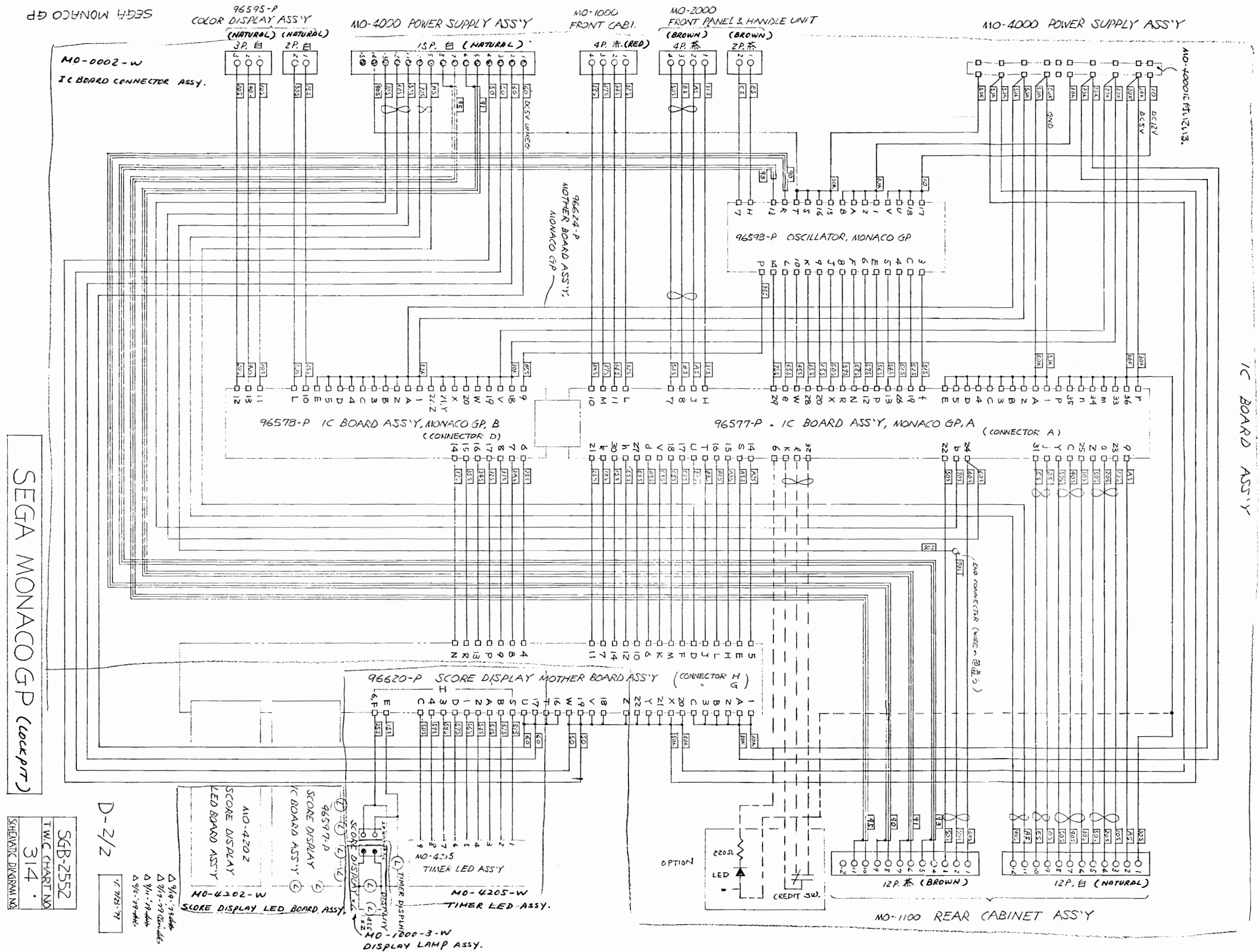


SEGA MONACO GP (COCKPIT)

D-1/2

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

Δ 9/18-77
Δ 9/17-77
Δ 1/10-77
Δ 1/1-77



SEGA MONACO GP (lock pt)

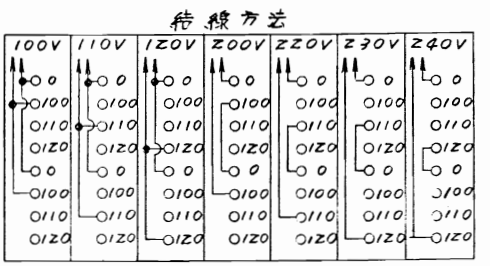
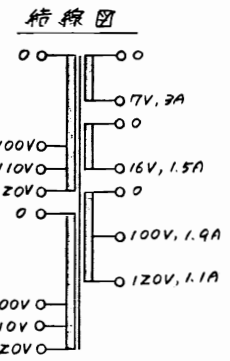
SGB-2552
T.W.C. CHART NO.
314.
SCHEMATIC DIAGRAM NO.

$$D-2/2$$

4. 7/28.

MACHINE	SUB-ASS'Y
	LIST-B1502
ALTERATIONS	
REMODEL	

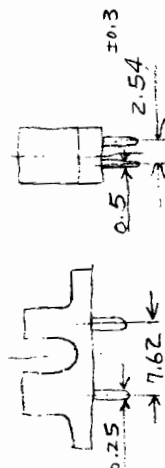
註1 本図面の寸法はISO規格による



- 仕様
- 1 種 单相乾式自冷型
 - 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×11=100MΩ以上
 - 9 絶縁耐力 AC1500V=1分間耐エルト
 - 10 温度上昇 抵抗法=120℃以下
 - 11 電圧変動 無負荷 7.35V以下 全負荷 3A 7V以上
 - 12 安全規格 電気用品取締法に適合する

SEGA enterprises LTD.		THIS DRAWING WILL IN NO WAY BE COPIED, TO BE RETURNED ON DEMAND.		許可なく複製 複製等厳禁	
LIMITS UNLESS OTHERWISE SPECIFIED		3RD QUAT. PROJ. DRAWING	APR.	22.7.1.1979	
±1		SCALE	V1	ASSY	12.1.1979
		DIM. IN	mm	CKD	12.1.1979
				DRW.	12.1.1979
MATERIAL	HEAT TREAT.	FINISH	REMARK		
POWER TRANSFORMER, 100-240V (GP)				96741	PART NO
DESCRIPTION					

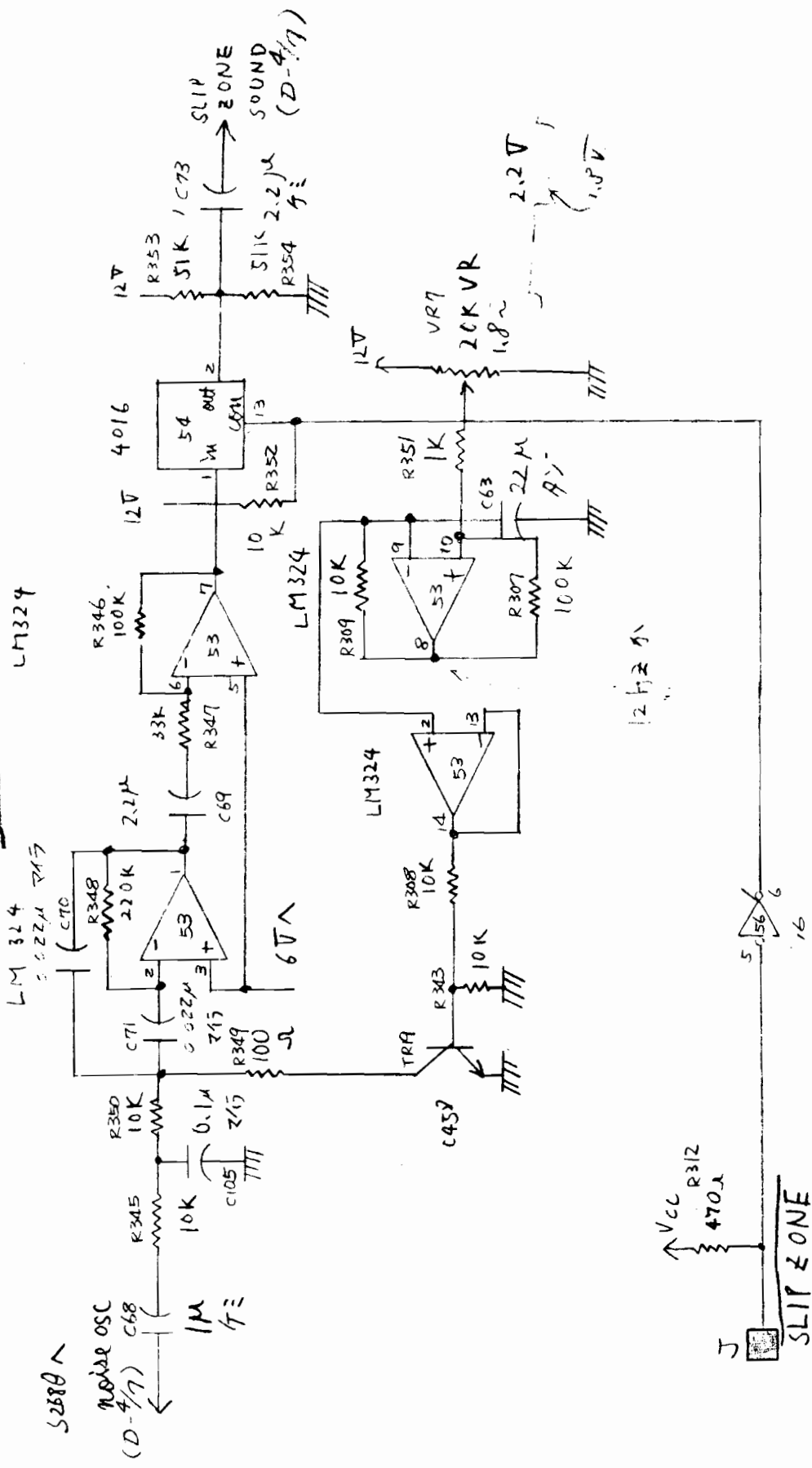
(ACCELERATOR BOARD)



04X04V
EE-SG3-B

PHOTO-MICRO SENSOR

SLIP ZONE SOUND



LM324

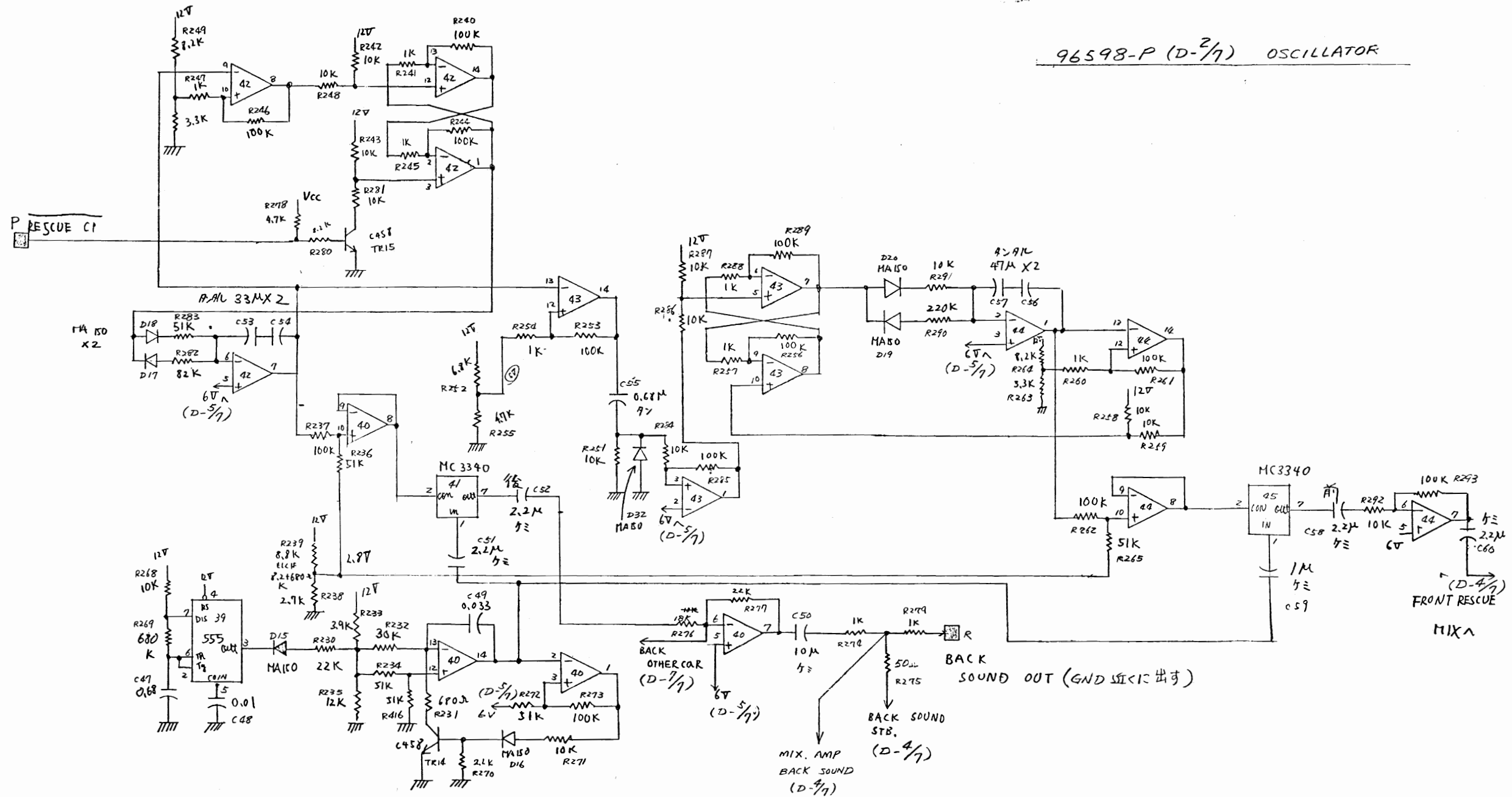
96598-P (D-1/7) OSCILLATOR

⑤ - MONACO GP

OP AMP LM324

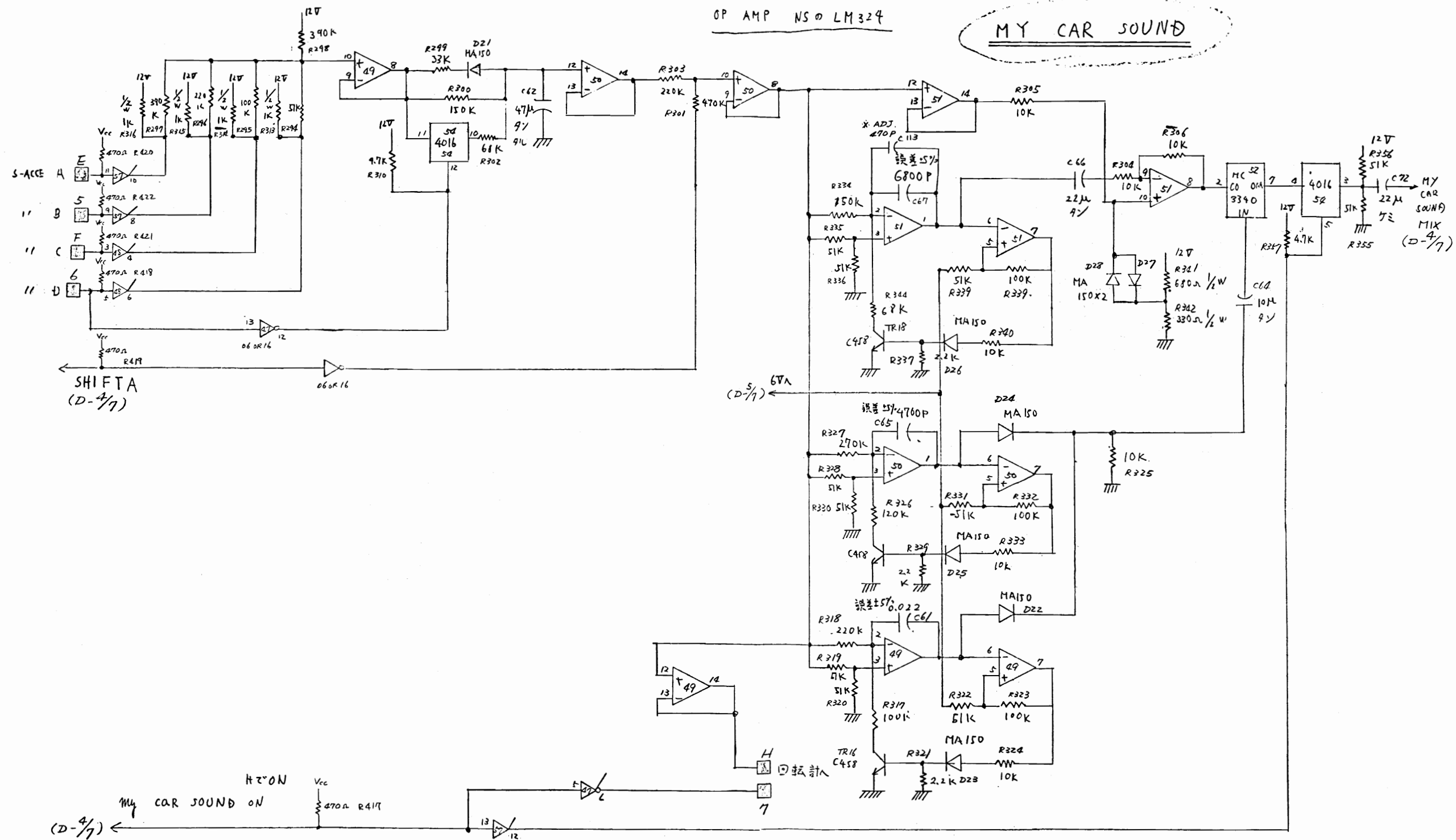
RESCUE CAR

96598-P (D-2/7) OSCILLATOR



LM324 4J
555 1J
MC3340 2J


S MONACO GP



LM 324 x 3
04 x 1
07 x 2
3340 x 1

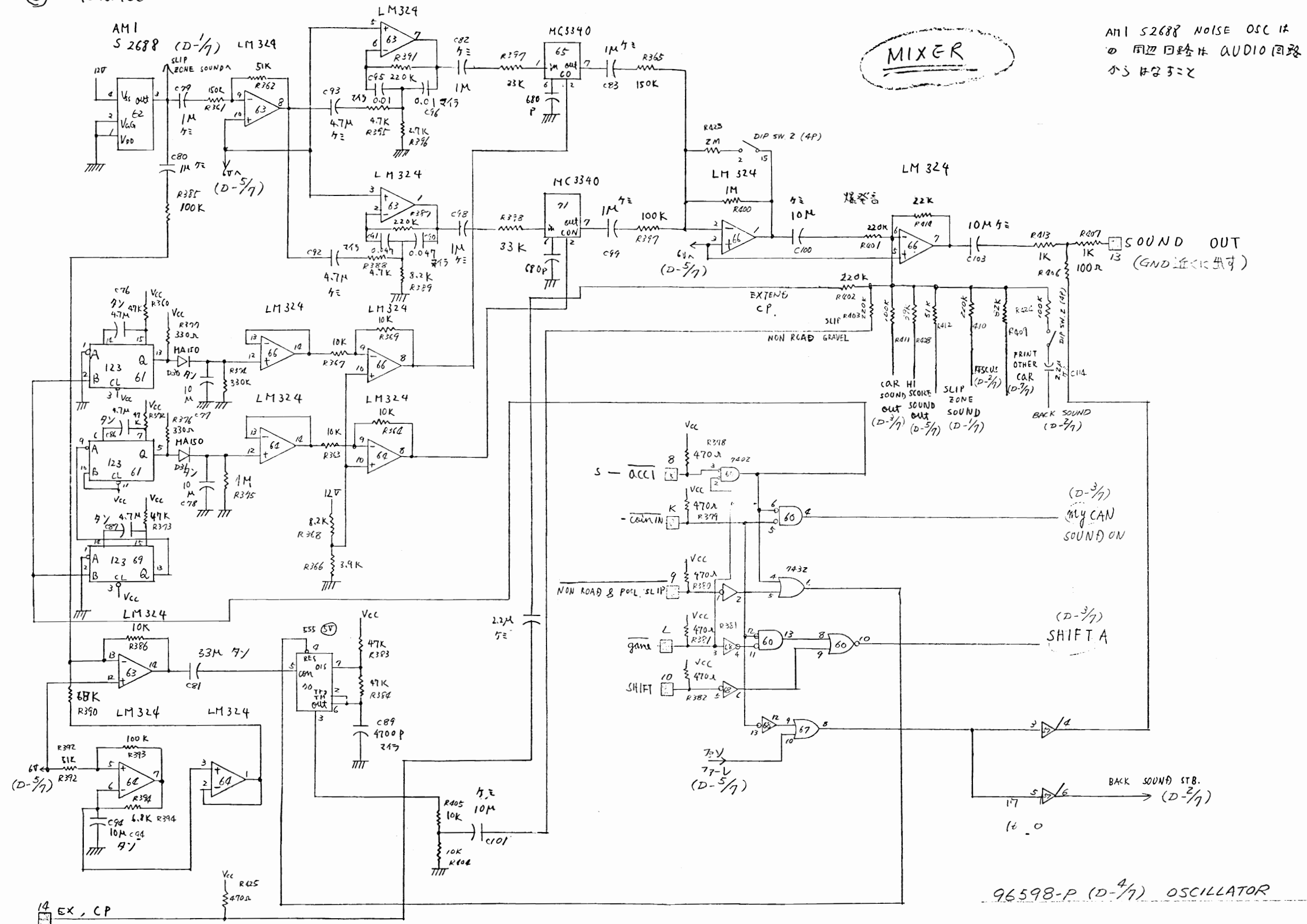
96598-P (D-³/7) OSCILLATOR

回転計 内部 メーター類の ランプ
は 12V AC または DC



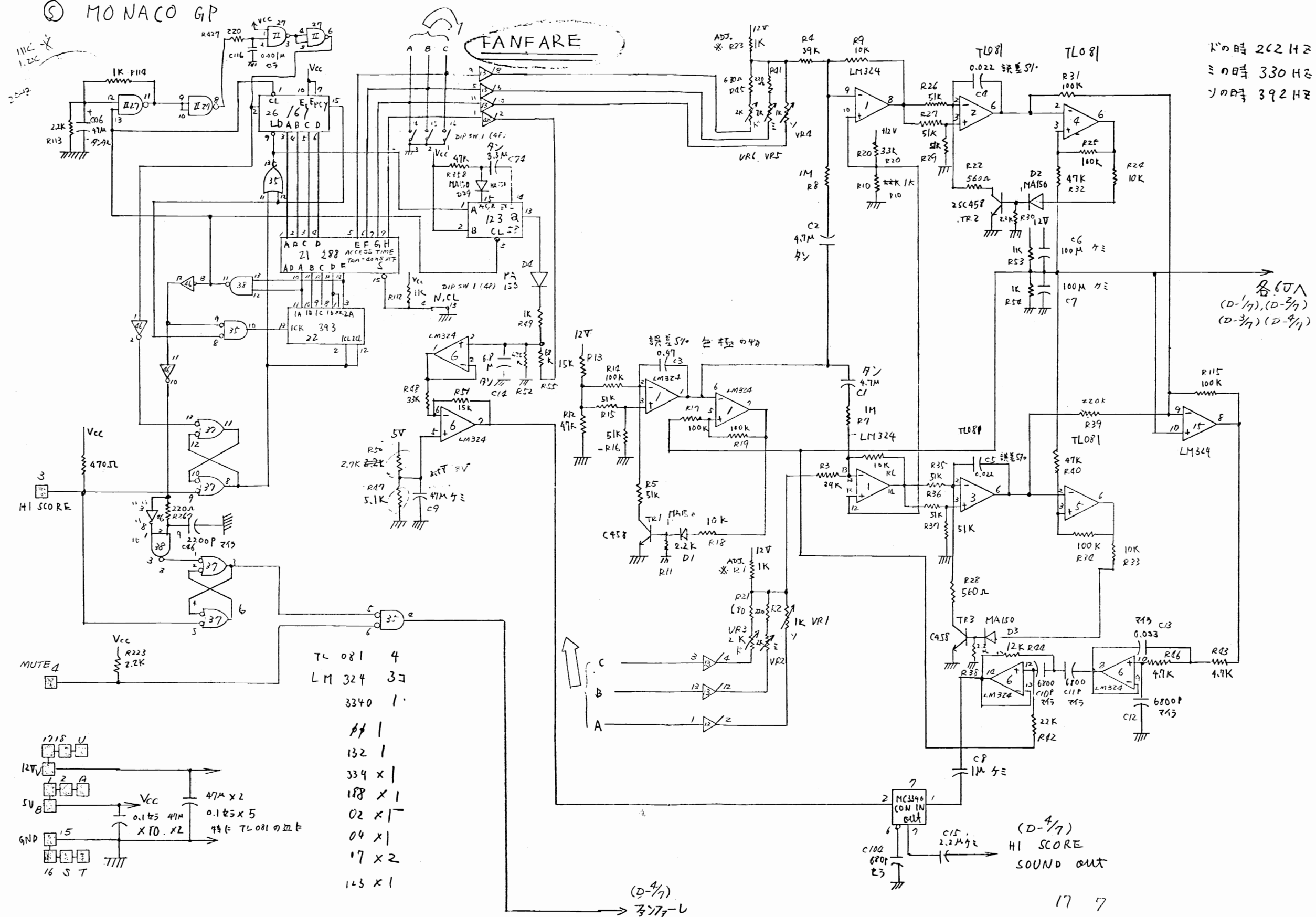
 $15\text{ k}\Omega$ 750 mA

⑤ - MONACO GP



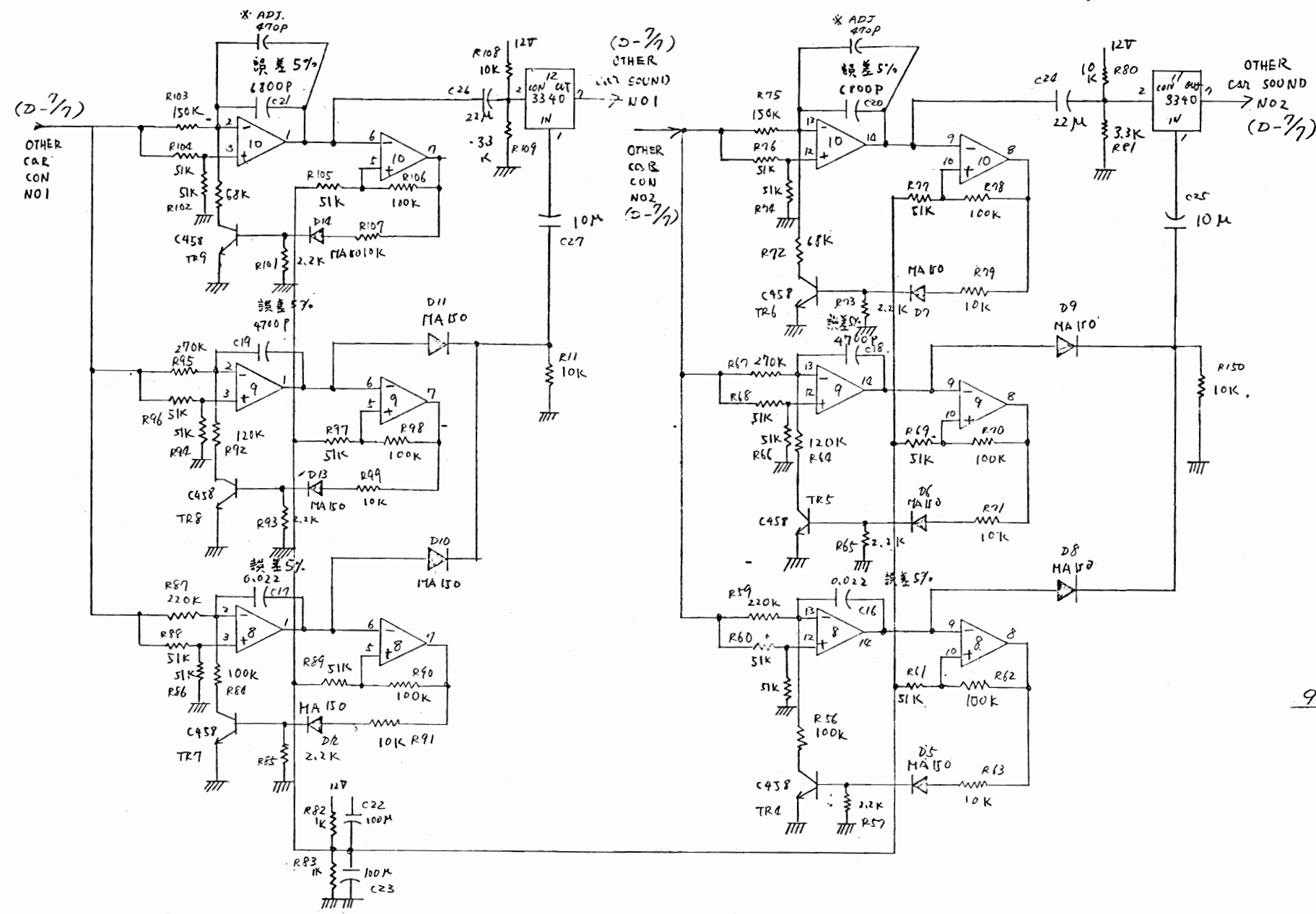
⑤ MONACO GP

Hand-drawn circuit diagram for a MONACO GP. The circuit includes two 741 op-amp chips. The first op-amp (left) has its non-inverting input (pin 3) connected to a voltage divider consisting of a 1K resistor and a 10K resistor, with the wiper connected to pin 2. Its inverting input (pin 1) is connected to a 220 ohm resistor and a 0.001uF capacitor, both connected to VCC. The output (pin 6) is connected to the non-inverting input (pin 3) of the second op-amp. The second op-amp (right) has its inverting input (pin 1) connected to a 220 ohm resistor and a 0.001uF capacitor, both connected to VCC. Its output (pin 6) is connected to the non-inverting input (pin 3) of the first op-amp, forming a feedback loop. The circuit is powered by VCC and ground.



96598-P (D-⁵/7) OSCILLATOR

⑤ - MONACO GP



OTHER CAR SOUND

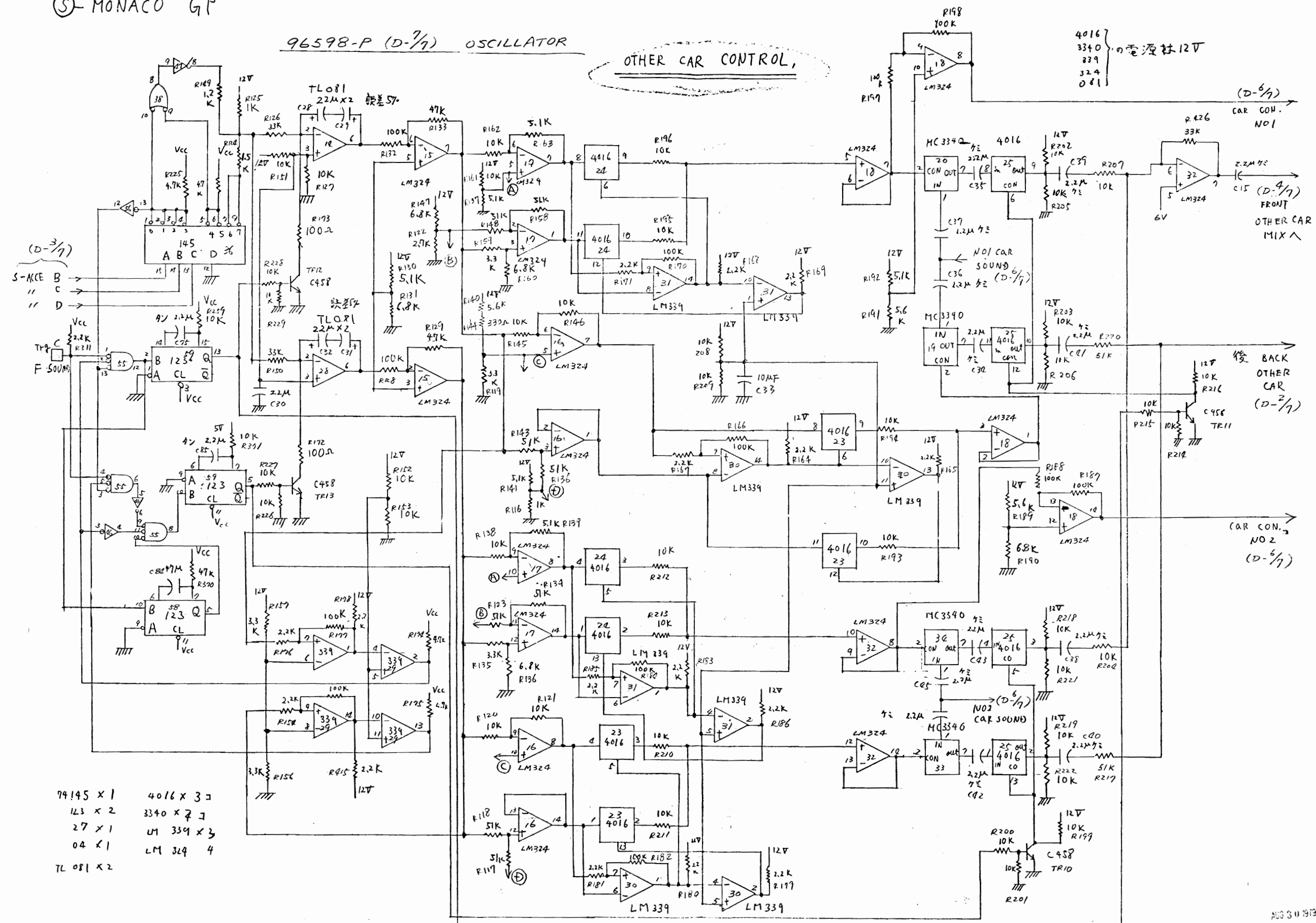
96598-P (D-6/7) OSCILLATOR

LM 324 X3
MC 3340 X2

⑤- MONACO GP

96598-P (D-7/7) OSCILLATOR

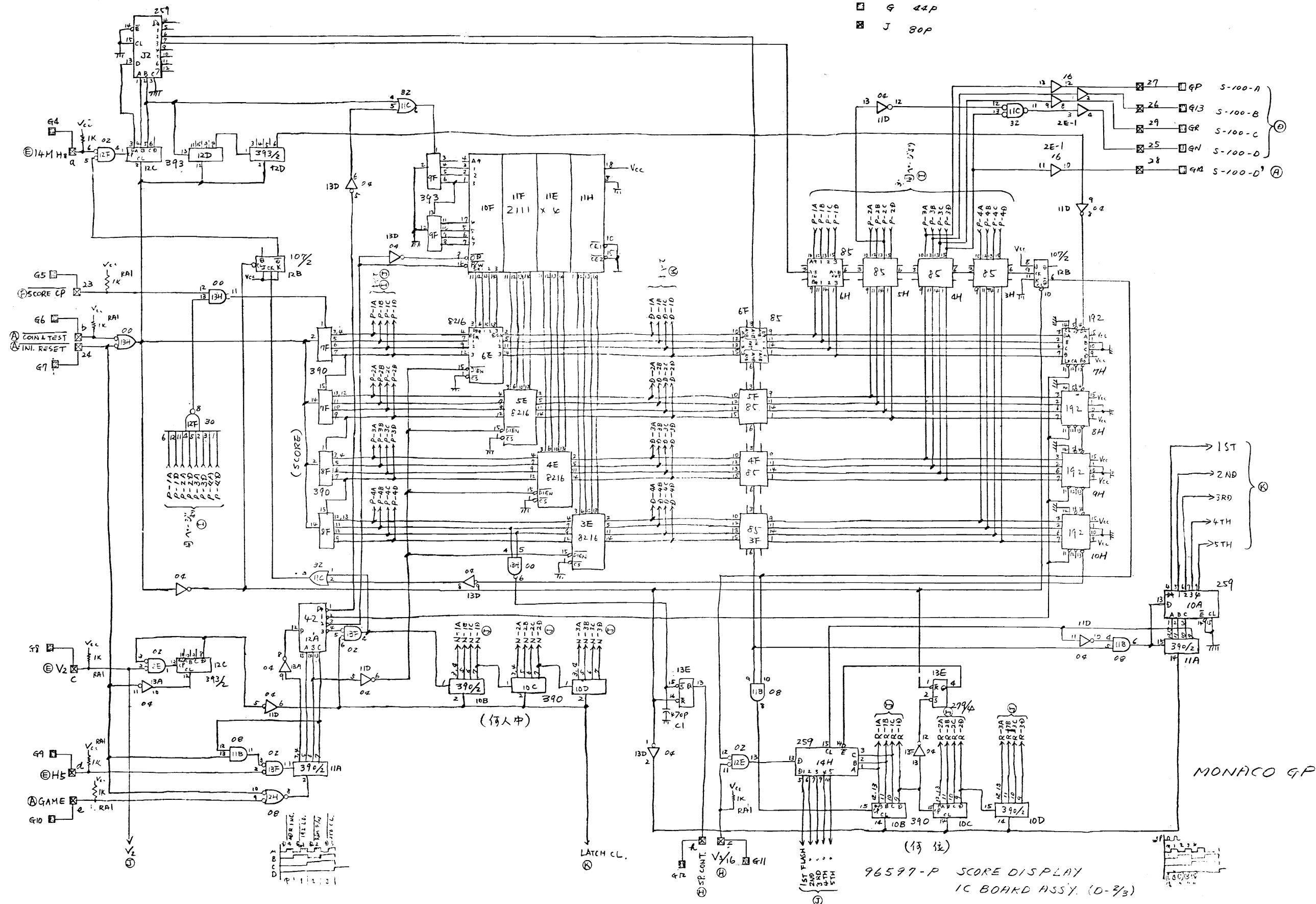
OTHER CAR CONTROL,


$$\begin{array}{r} 79145 \times 1 \\ 123 \times 2 \\ 27 \times 1 \\ 04 \times 1 \\ \text{TL } 081 \times 2 \end{array} \quad \begin{array}{r} 4016 \times 3 \square \\ 3340 \times 7 \square \\ \text{LM } 339 \times 3 \\ \text{LM } 329 \quad 4 \end{array}$$

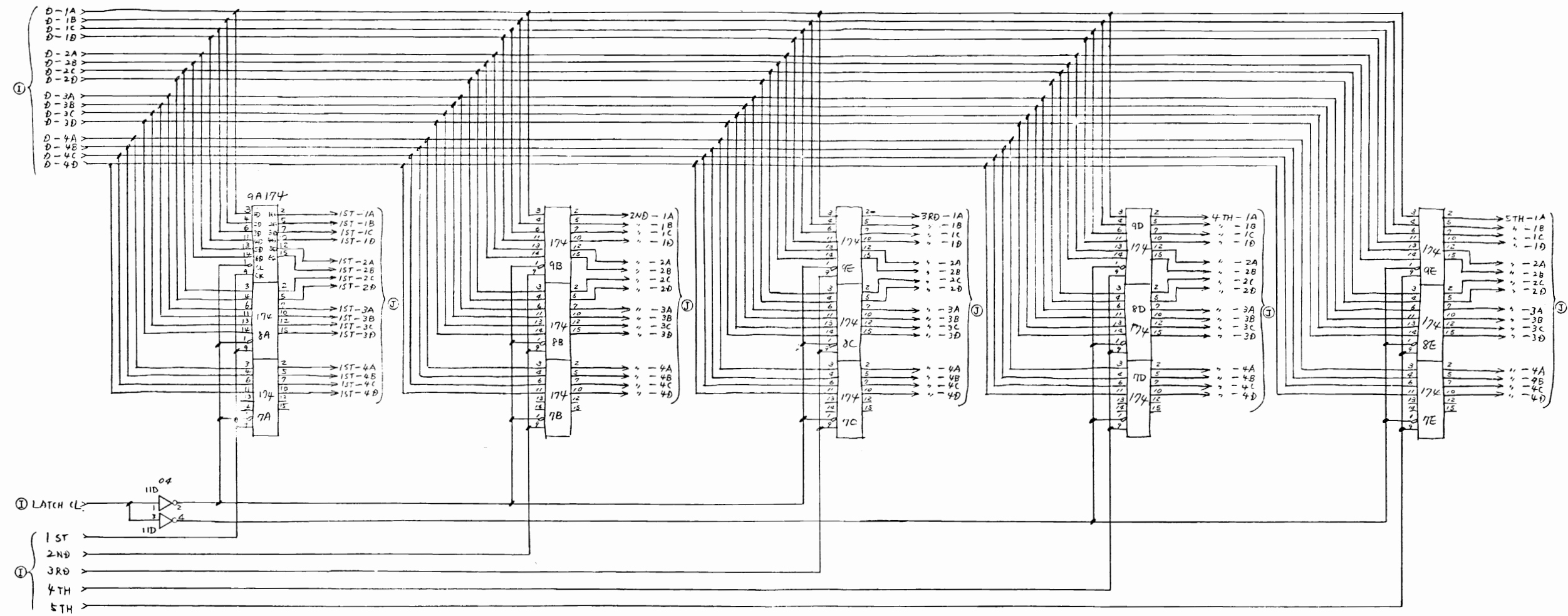
AUG 30 1979

CONNECTOR 記号及 P 数

☒ G 44p
☒ J 80p

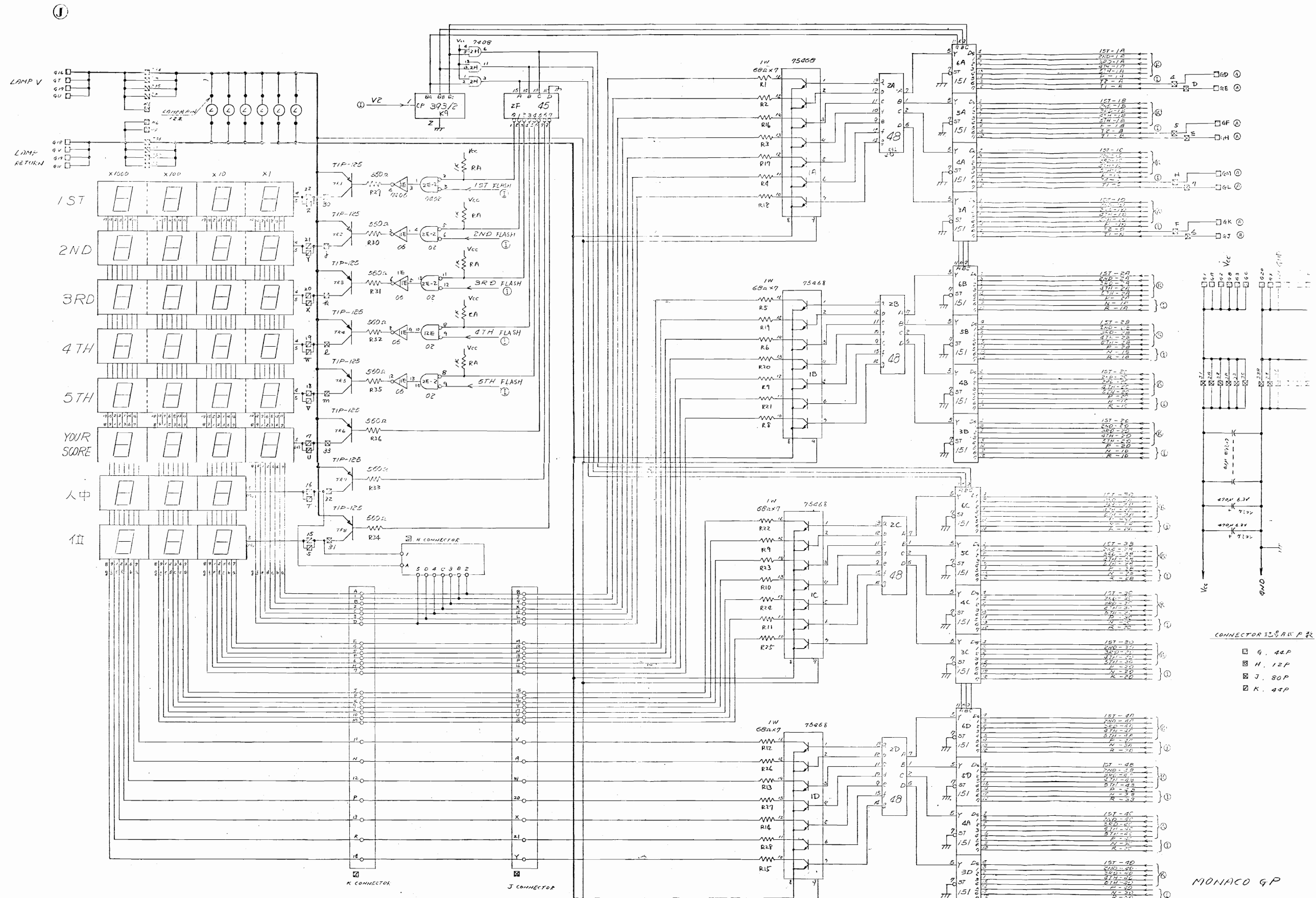


K



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

MONACO GP



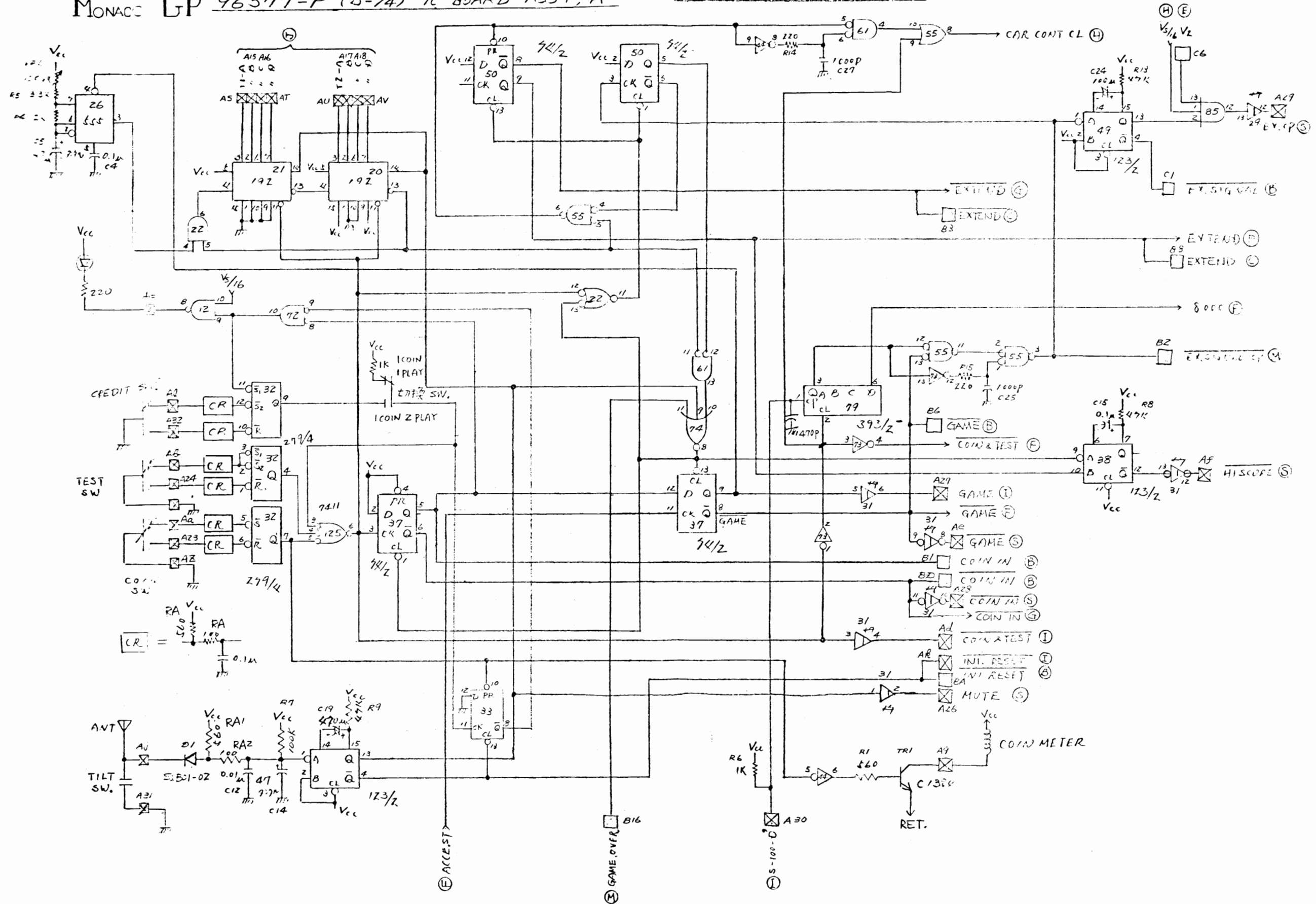
MO-4202
SCORE DISPLAY LED BOARD ASS'Y.

96620-P
SCORE DISPLAY
MOTHER BOARD ASS'Y.

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

スグ-上, タイマ- コントロ-ル

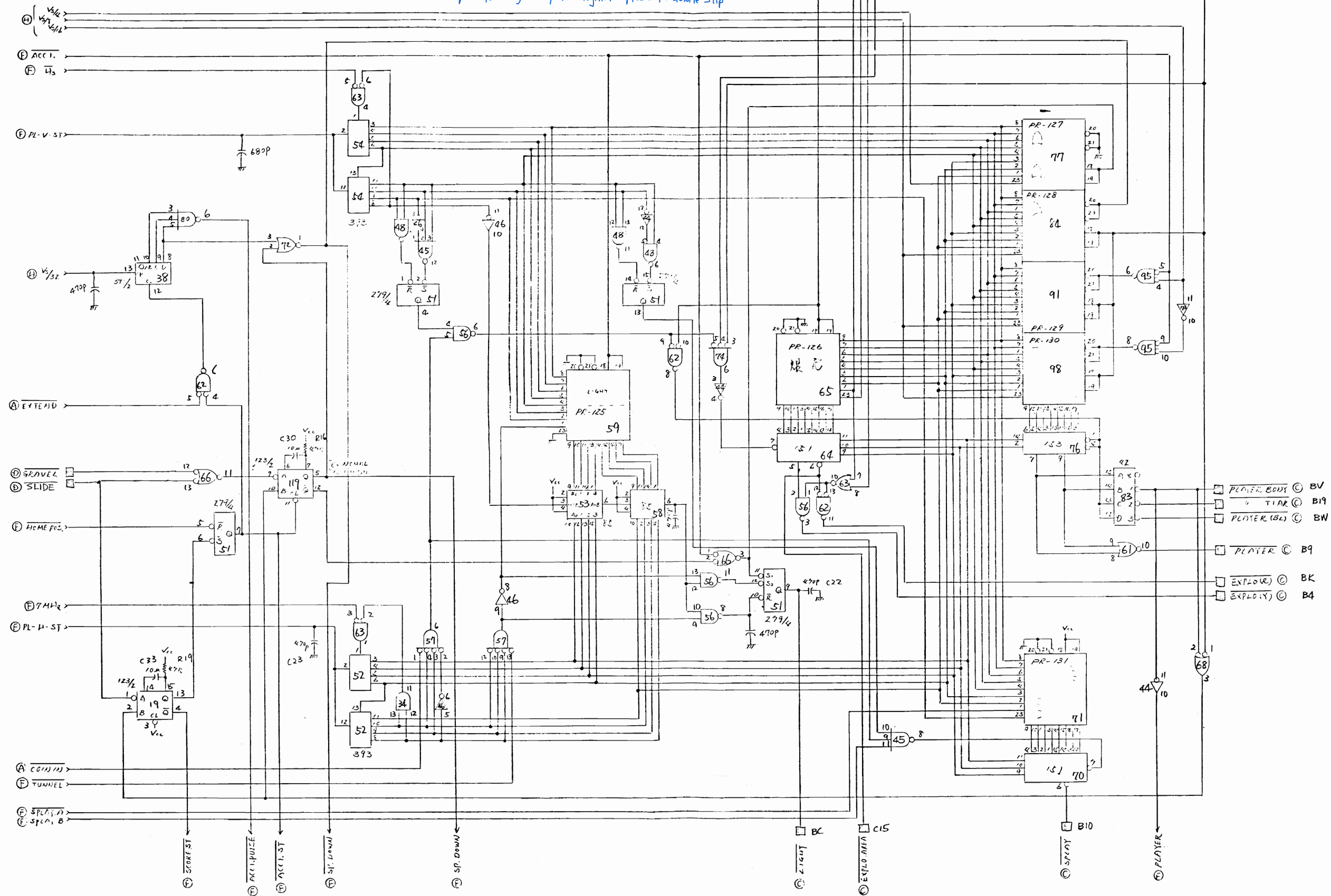
MONACO GP 96577-P (D-1/4) IC BOARD ASSY, A



© ⁴/₁₃

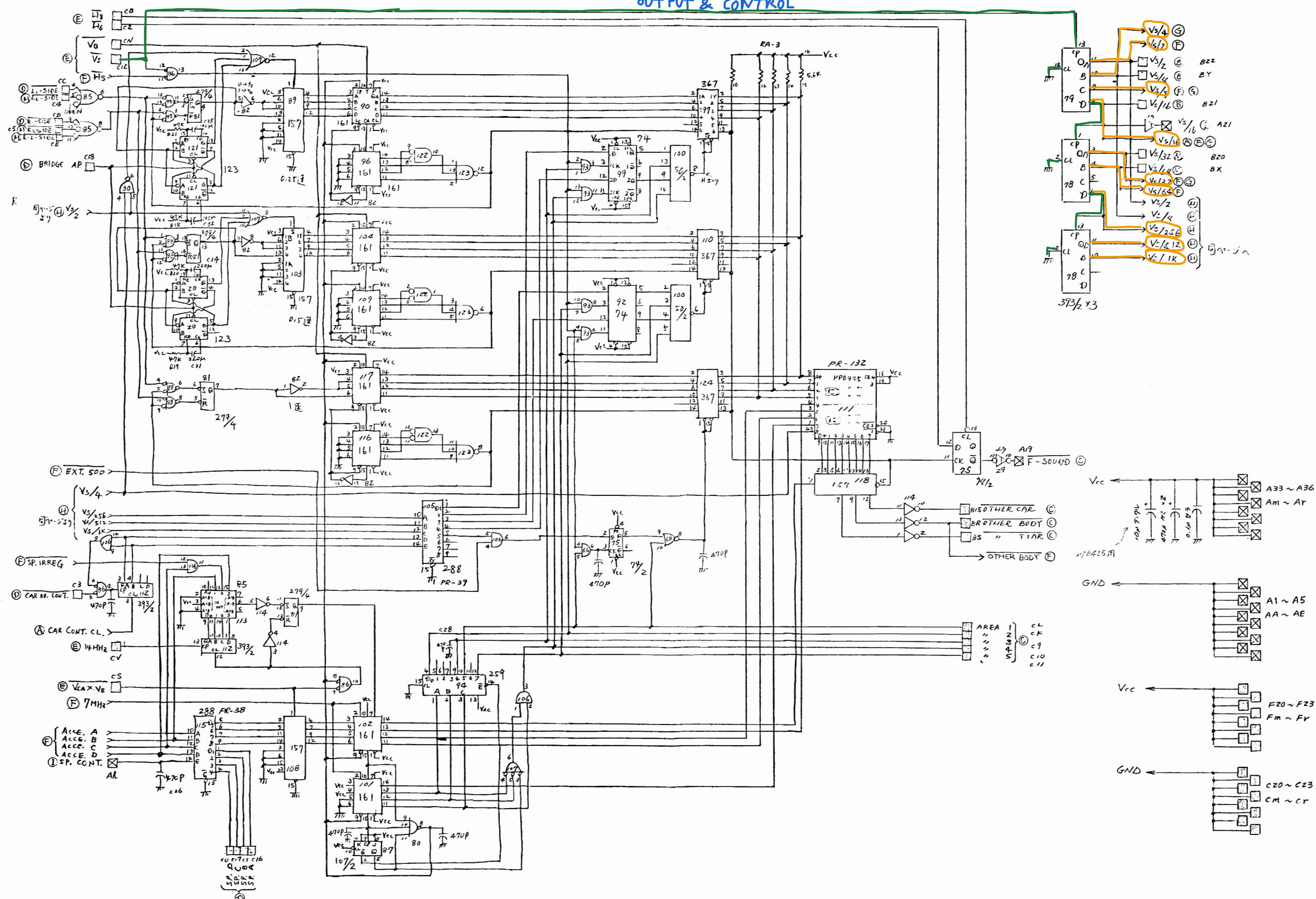
MONACO GP 96577-P (D-³/₄) IC BOARD ASS'Y, A

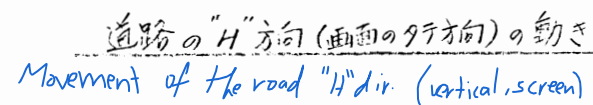
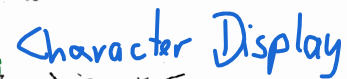
マイカー、ヘッドライト、爆発、水たまりスリップ
Output for Player Car, Headlights, Explosion, Puddle Slip



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

OUTPUT & CONTROL



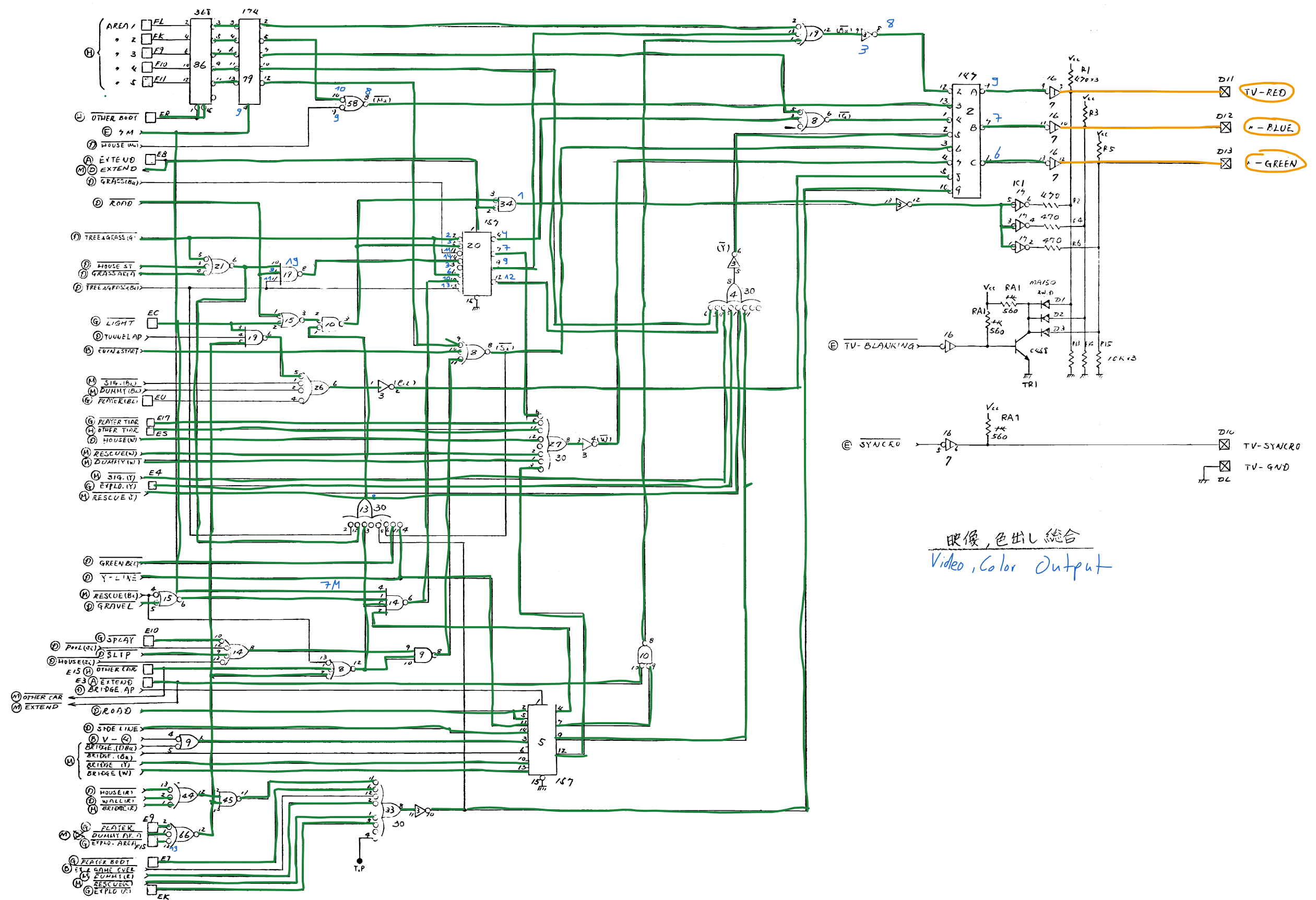


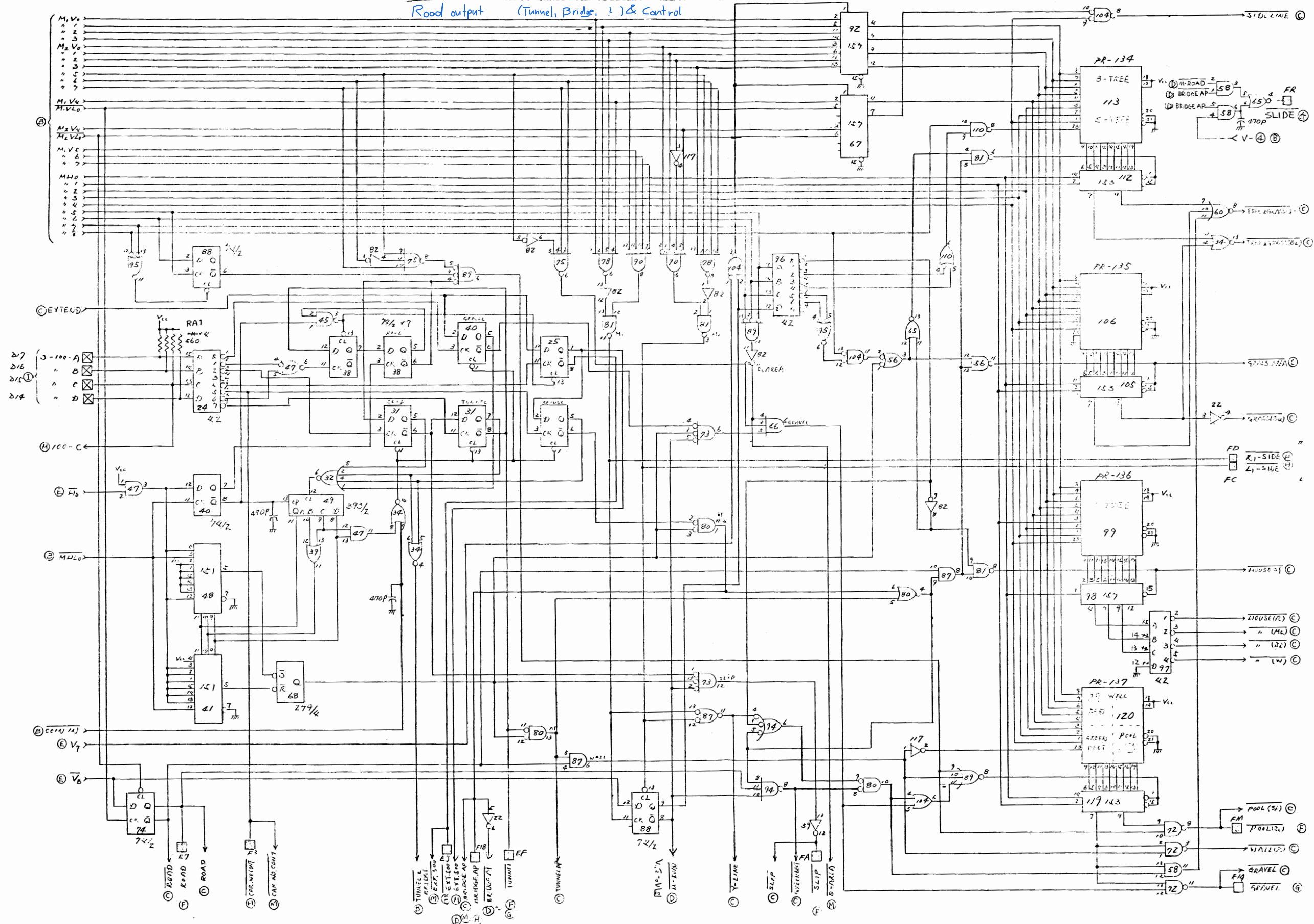
右側
Right side

左側
left

① 3/4

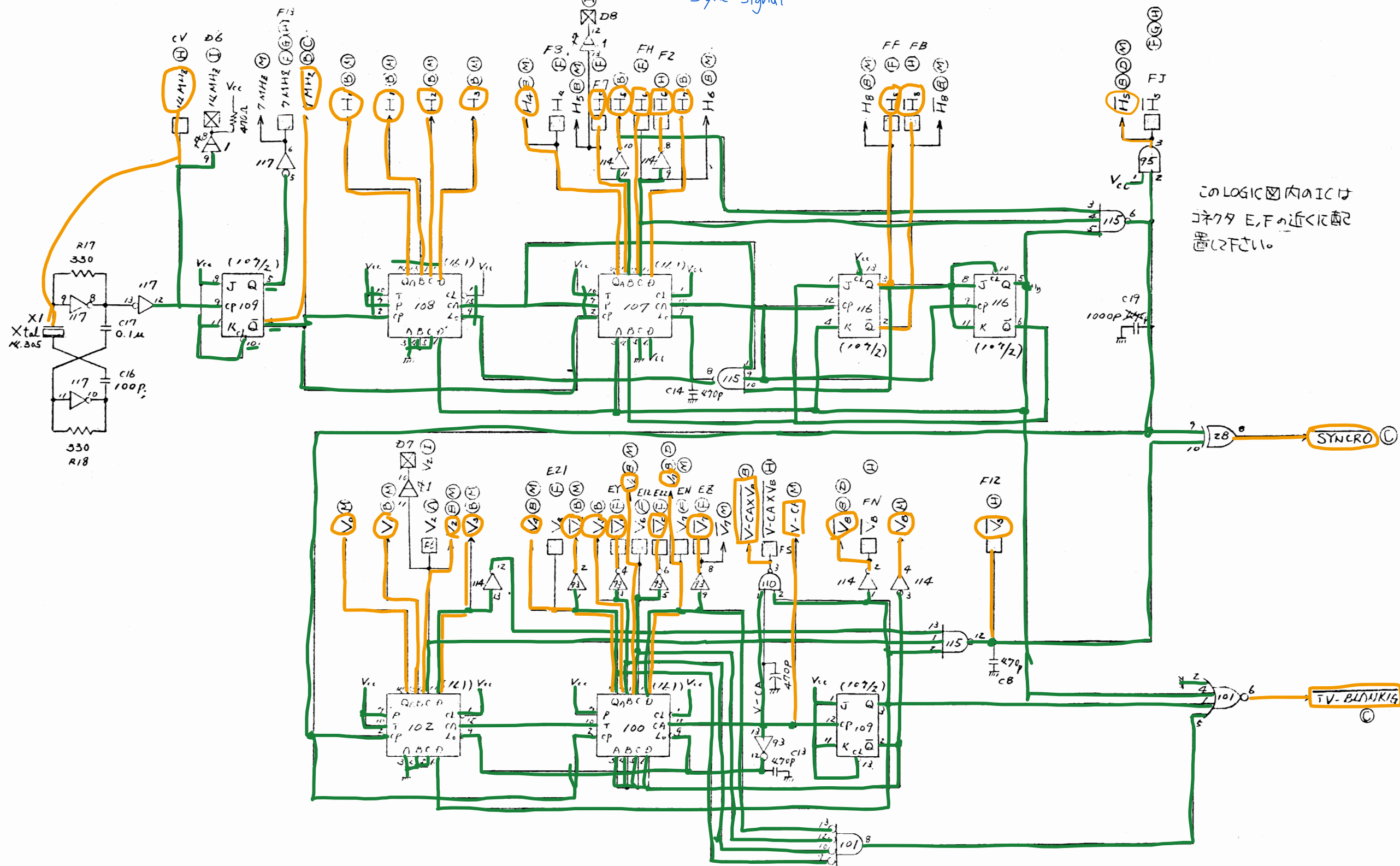
MONACO GP 96578-P (D-15) IC BOARD ASSY, B



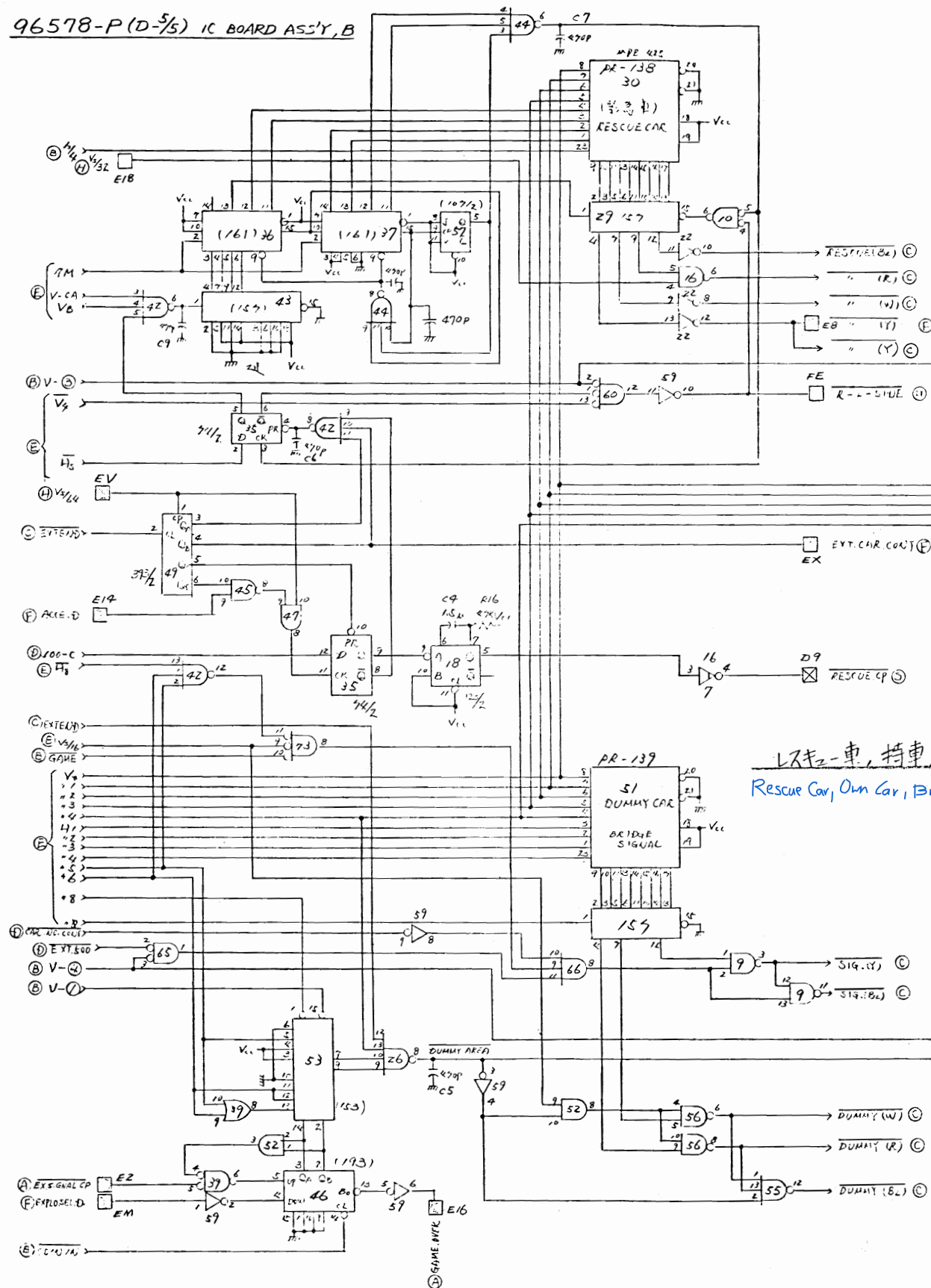


MONACO GP 96578-P (D-4/5) IC BOARD ASS'Y, B

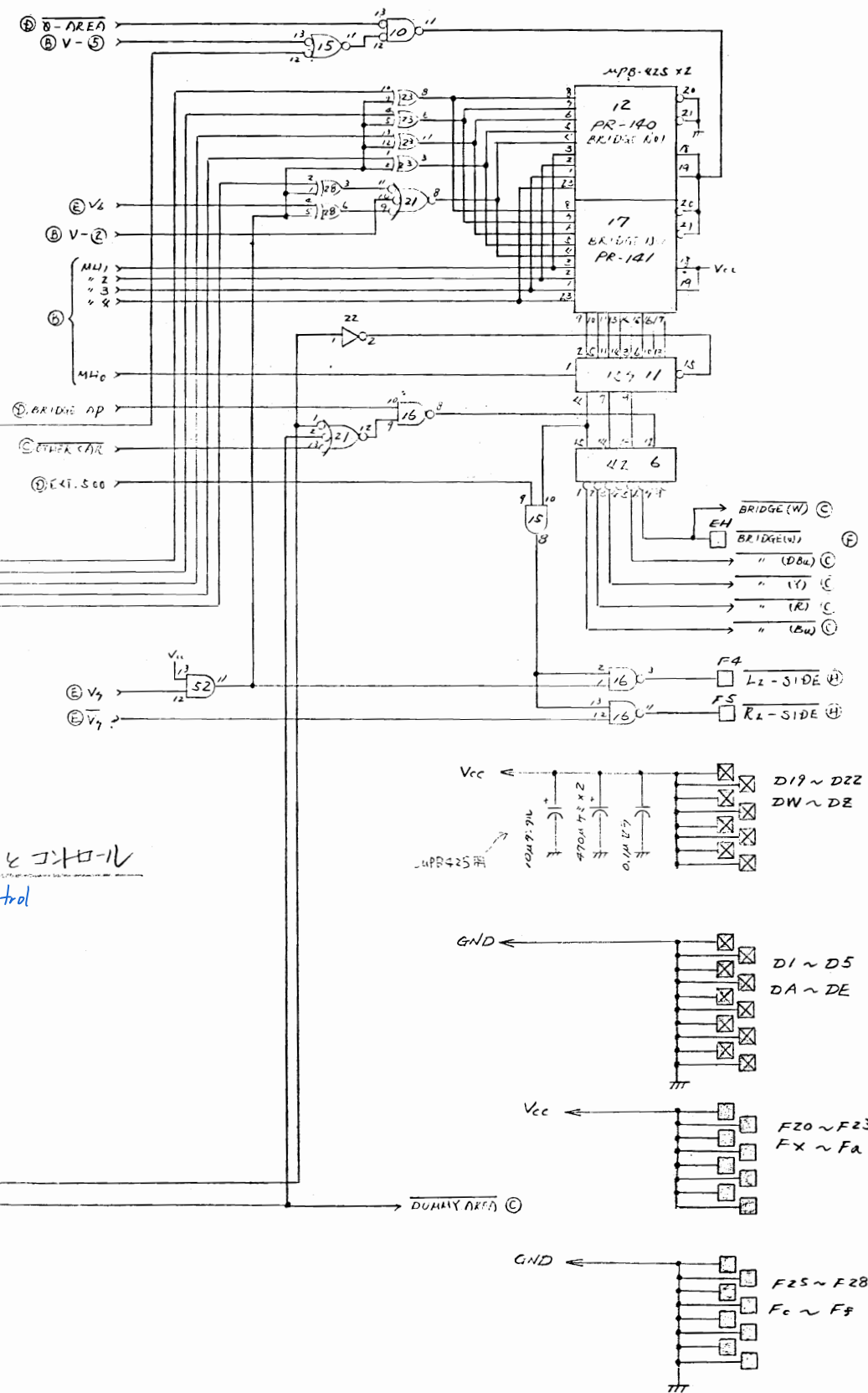
Sync Signal



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



レスキュー車、持車、橋の給出しとコントロール
Rescue Car, Own Car, Bridge End & Control



⑤^{1/3}

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

同期信号

