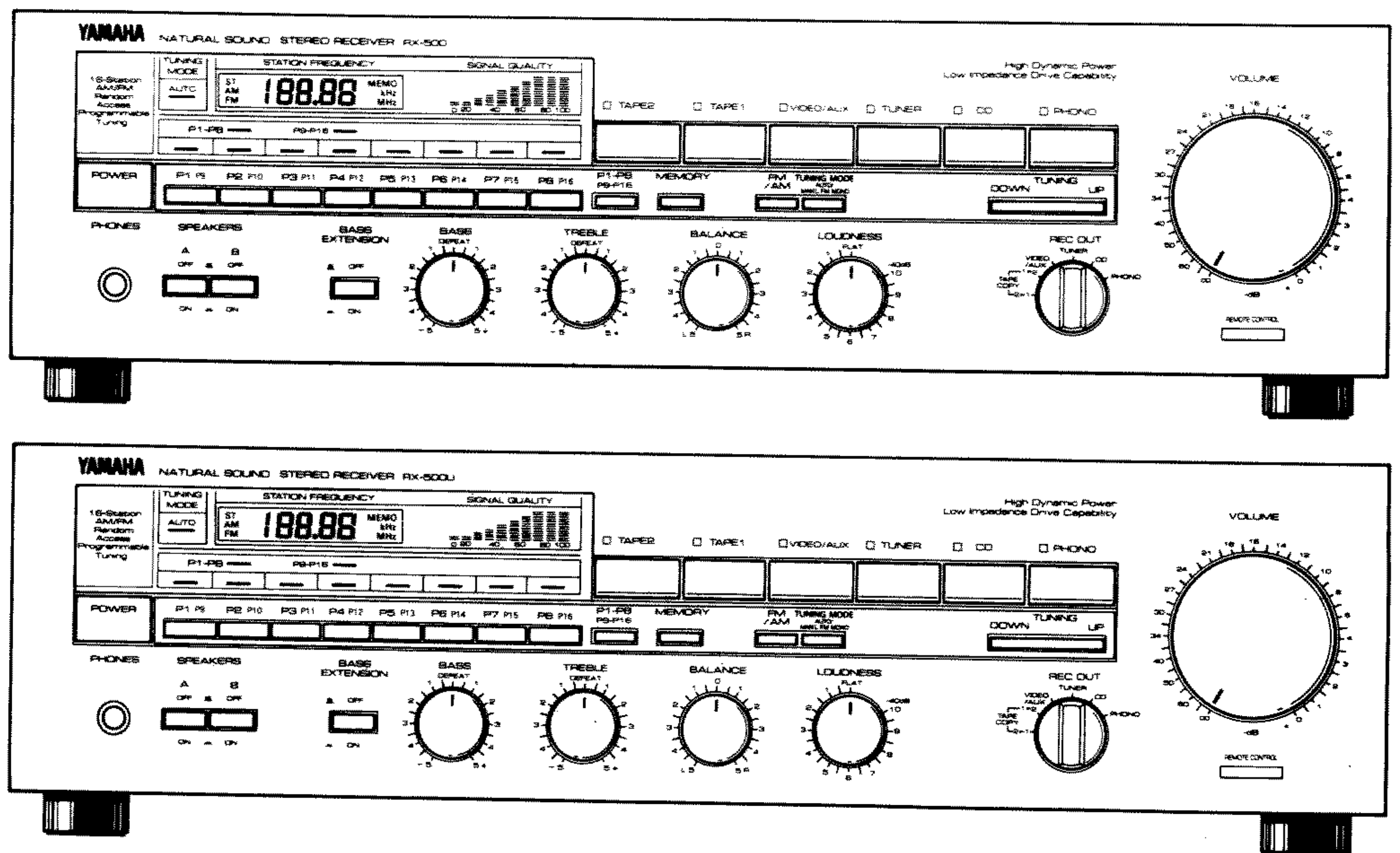
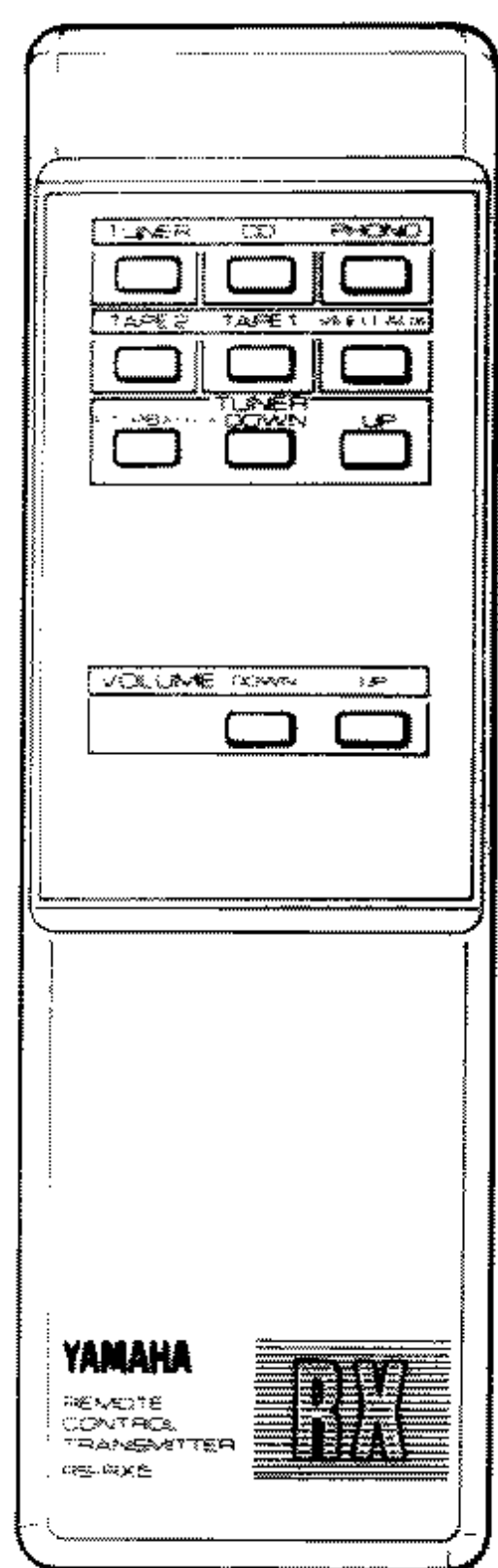


# STEREO RECEIVER

# RX-500/500U

## SERVICE MANUAL

### FRONT PANEL



### IMPORTANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

**WARNING:** Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

**IMPORTANT:** The presentation or sale of this manual to any individual or firm does not constitute authorization, certification, recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

**WARNING:** Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

**IMPORTANT:** Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

### CONTENTS

TO SERVICE PERSONNEL . . . . .	1	$\mu$ -COM DATA . . . . .	10, 11
SPECIFICATIONS . . . . .	1, 2	PRINTED CIRCUIT BOARD . . . . .	12~15
REAR PANELS . . . . .	2	SCHEMATIC DIAGRAM . . . . .	16, 17
INTERNAL VIEW . . . . .	3	WIRING . . . . .	18
DISASSEMBLY PROCEDURES . . . . .	3	IC BLOCK . . . . .	19~22
BLOCK DIAGRAM . . . . .	4, 5	PARTS LIST . . . . .	22~29
ADJUSTMENTS . . . . .	6~9	REMOTE CONTROL TRANSMITTER . . . . .	30, 31

100092

SINCE 1887




# YAMAHA

NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN

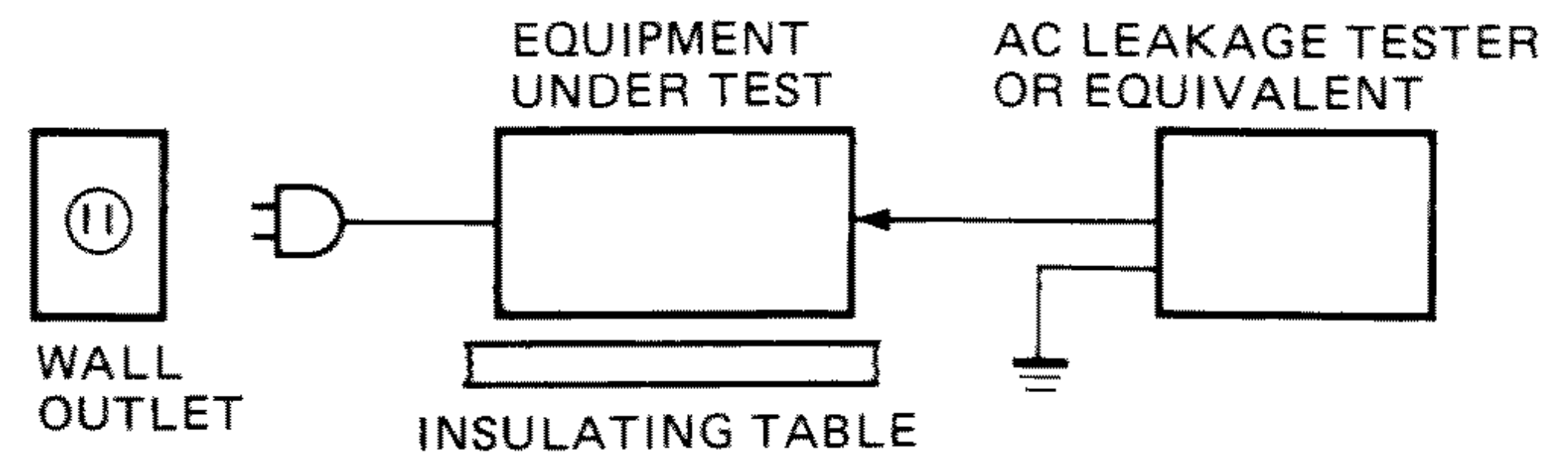
3. 3k-563 Printed in Japan. '87. I



## TO SERVICE PERSONNEL

- Critical Components Information.**  
Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.
- Leakage Current Measurement (For 120V Model Only).**  
When service has been completed, it is imperative that you verify that all exposed conductive surfaces are properly insulated from supply circuits.
  - Meter impedance should be equivalent to 1500 ohm shunted by 0.15μF

- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.



## SPECIFICATIONS

### AUDIO SECTION

<b>Minimum RMS Output Power Per Channel</b>	
20Hz~20kHz, 0.015% THD, 8Ω	50W (R)(U)(C) 48W (A)(G)(B)
0.015% THD, 6Ω	55W (R)(U)(C) 53W (A)(G)(B)
<b>Dynamic Power Per Channel</b>	
8Ω	81W (R)(U)(C), 75W (A)(G)(B)
6Ω	92W (R)(U)(C), 90W (A)(G)(B)
4Ω	138W (R)(U)(C), 100W (A)(G)(B)
2Ω	112W (R)(U)(C), 110W (A)(G)(B)
<b>DIN Standard Output Power Per Channel</b>	
1kHz, 1% THD, 4Ω	65W (G)
<b>Dynamic Headroom</b>	
8Ω	2.1dB (R)(U)(C)
<b>IEC Power</b>	
1kHz 0.01% THD, 8Ω/6Ω	57/67W (G)
<b>Power Band Width</b>	
0.1% THD, 25W, 8Ω	10Hz~50kHz
<b>Damping Factor</b>	
1kHz, 8Ω	50W
<b>Input Sensitivity/Impedance</b>	
Phono MM	2.5mV/47kΩ (U)(C)(R)
CD/etc.	150mV/50kΩ (U)(C)(R)
<b>Input Sensitivity (New IHF)</b>	
Phono MM	0.42mV (R)(U)(C)
CD/etc.	25mV (R)(U)(C)
<b>Maximum Input Signal</b>	
Phono, 1kHz, 0.01% THD	120mV
<b>Output Level/Impedance</b>	
REC OUT	150mV/1.5kΩ
<b>Headphone Jack Rated Output/Impedance</b>	
0.015% THD (8Ω)	0.7V/220Ω
<b>Frequency Response</b>	
20Hz~20kHz, CD/etc.	0±0.5dB
<b>RIAA Equalization Deviation</b>	
Phono	0±0.5dB
<b>Total Harmonic Distortion (20Hz~20kHz)</b>	
Phono MM to Rec Out 3V	0.01%
CD/etc. to Sp Out 25W/8Ω	0.015%
<b>Intermodulation Distortion</b>	
CD/etc. to Rated Output/8Ω	0.01%
<b>Signal to Noise Ratio (IHF-A-Network)</b>	
Phono (5mV Input Shorted)	88dB (R)(U)(C)
CD/etc. (Input Shorted)	82dB (A)(G)(B)
CD/etc. (Input Shorted)	103dB
<b>Signal to Noise Ratio (New IHF)</b>	
Phono	74dB (R)(U)(C)
CD/etc.	84dB (R)(U)(C)
<b>Residual Noise (IHF-A-Network)</b>	
	120μV (R)(U)(C)
<b>Channel Separation (Vol. -30dB)</b>	
Phono Input Shorted, 1kHz	55dB
CD/etc. Input 5.1kΩ, 1kHz	52dB
<b>Tone Control Characteristics</b>	
BASS boost/cut	±10dB (at 50Hz)
turnover frequency	350Hz
TREBLE boost/cut	±10dB (at 20kHz)
turnover frequency	3.5kHz
<b>Filter Characteristics</b>	
BASS EXTENTION	60Hz (8dB/oct.)
<b>Continuous Loudness Control (Level related equalization)</b>	
Attenuation	40dB (at 1kHz)

### GENERAL

<b>Power Supply</b>	
U.S. & Canadian Models	120V AC, 60Hz
European Model	220V AC, 50Hz
British & Australian Models	240V AC, 50Hz
Others Model	110/120/220/240V AC, 50/60Hz
<b>Power Consumption</b>	
	210W (R)(U)(C) 350W (A)(G)(B)
<b>AC Outlet</b>	
Switched x 1	100W Max
Unswitched x 1	200W Max (R)(U)(C)
<b>Dimensions (W x H x D)</b>	
	435 x 126 x 288.5 mm (17-1/8" x 4-15/16" x 11-3/8")
<b>Weight</b>	
	5.6kg (13 lbs 14 oz)

### FM SECTION

<b>Tuning Range</b>	
	87.5 to 107.9MHz (U)(C) 87.5 to 108.0MHz (G)(A)(B) 87.5 to 107.9MHz or 87.5 to 108.0MHz (R)
<b>50dB Quieting Sensitivity (IHF)</b>	
Mono, 75Ω	1.55μV (15.1dBf) (R)(U)(C)(A)(B)
Stereo, 75Ω	21μV (37.7dBf) (R)(U)(C)(A)(B)
<b>Usable Sensitivity</b>	
1kHz 100% MOD, 75Ω (30dB S/N Quieting)	0.8μV (9.3dBf) (R)(U)(C)(A)(B)
DIN Mono (S/N 26dB), 75Ω	1.4μV (G)
DIN stereo (S/N 46dB), 75Ω	30μV (G)
<b>Image Response Ratio</b>	
	50dB (R)(U)(C)(A)(B) 90dB (G)
<b>IF Response Ratio</b>	
	75dB (R)(U)(C)(A)(B) 85dB (G)
<b>Spurious Response Ratio</b>	
	70dB
<b>AM Suppression Ratio</b>	
	55dB
<b>Capture Ratio</b>	
	1.5dB
<b>Alternate Channel Selectivity</b>	
	85dB (R)(U)(C)(A)(B)
<b>Selectivity (Two Signals)</b>	
(40kHz, Dev.)±300kHz	50dB (G)
<b>Signal to Noise Ratio (IHF)</b>	
Mono	81dB (R)(U)(C)(A)(B)
Stereo	76dB (R)(U)(C)(A)(B)
<b>Signal to Noise Ratio (DIN-Un Weighted)</b>	
Mono (40kHz, Dev.)	76dB (G)
Stereo (40kHz, Dev.)	70dB (G)
<b>Harmonic Distortion</b>	
Mono, 1kHz	0.1%
Stereo, 1kHz	0.2%
<b>Stereo Separation (1kHz)</b>	
	50dB
<b>Frequency Response</b>	
30Hz to 13kHz	0±0.5dB

### AM SECTION

<b>Tuning Range</b>	
	530 to 1610kHz (U)(C) 531 to 1611 kHz (G)(A)(B) 530 to 1610kHz or 531 to 1611kHz (R)
<b>Usable Sensitivity (IHF)</b>	
	250μV/m
<b>Selectivity</b>	
	32dB
<b>Signal to Noise Ratio</b>	
	50dB
<b>Image Response Ratio</b>	
	40dB
<b>Spurious Response Ratio</b>	
	50dB
<b>Harmonic Distortion (400Hz)</b>	
	0.3%

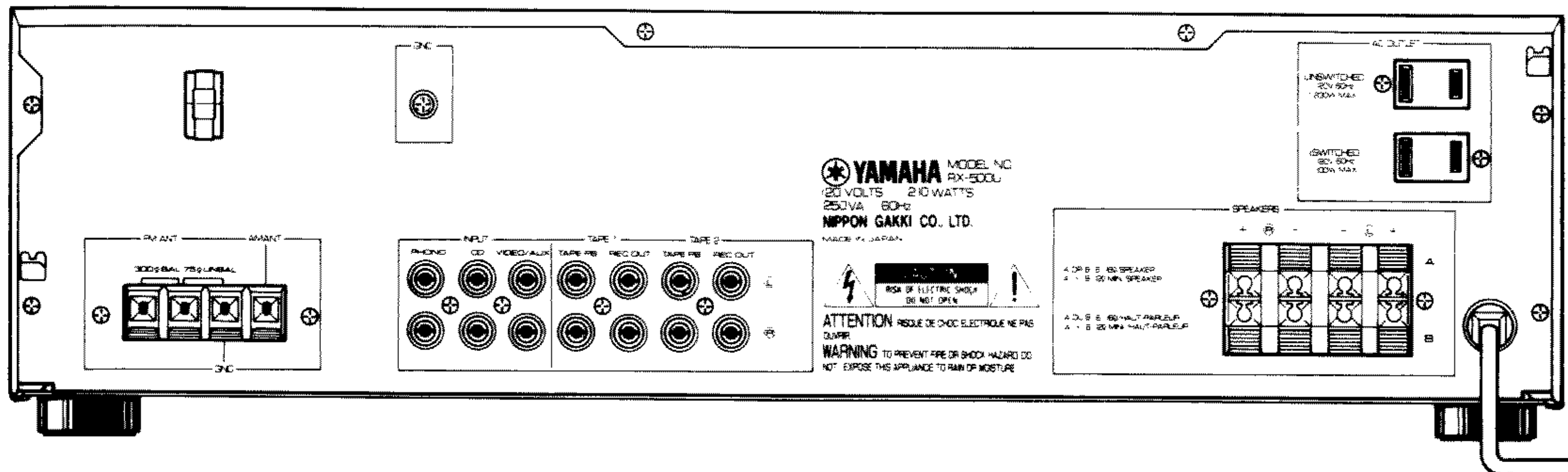
CD/etc.: CD/VIDEO/TUNER/AUX/TAPE/VCR/V.DP

- (U) . . . . U.S.A. model      (G) . . . . European model
- (C) . . . . Canadian model    (B) . . . . British model
- (A) . . . . Australian model    (R) . . . . Others model

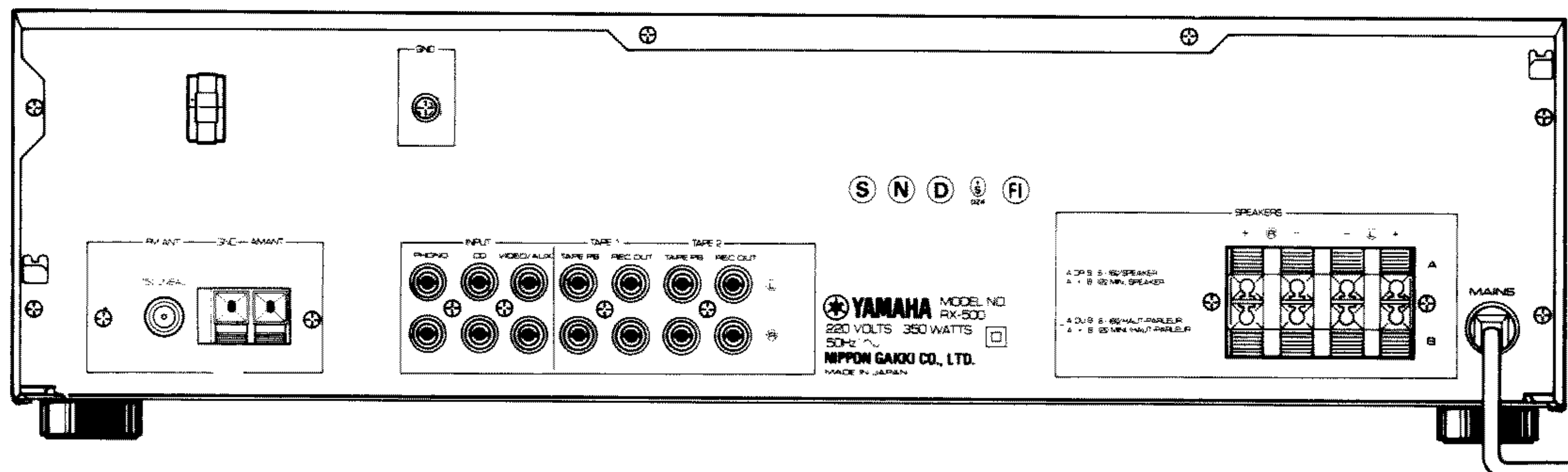
Specifications subject to change without notice.

## REAR PANELS

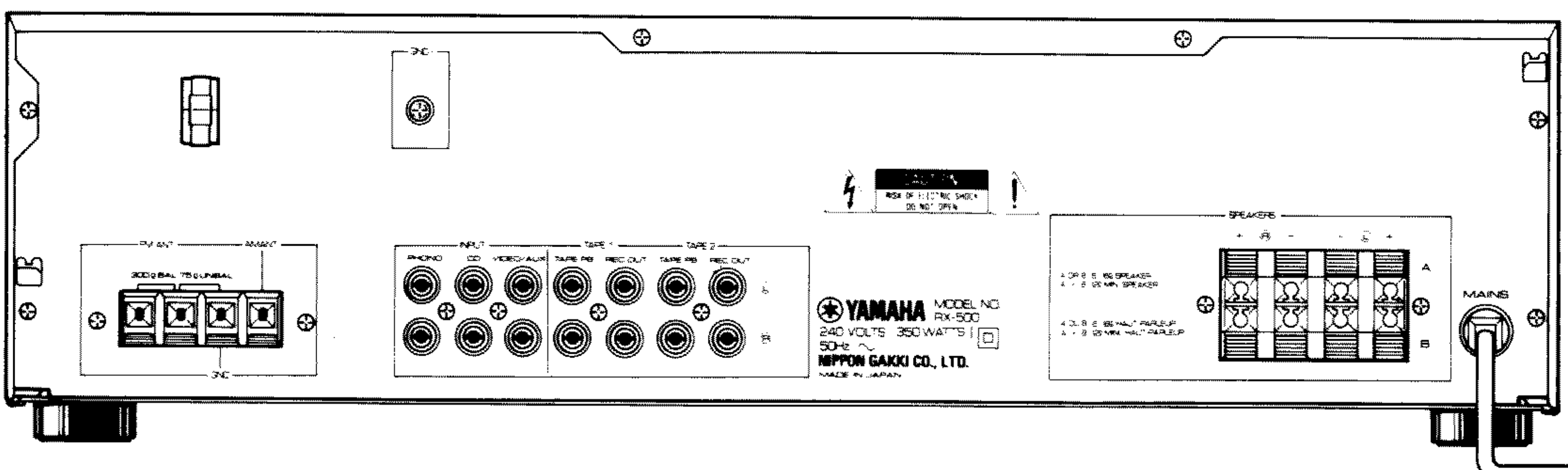
### U.S.A. & Canadian models



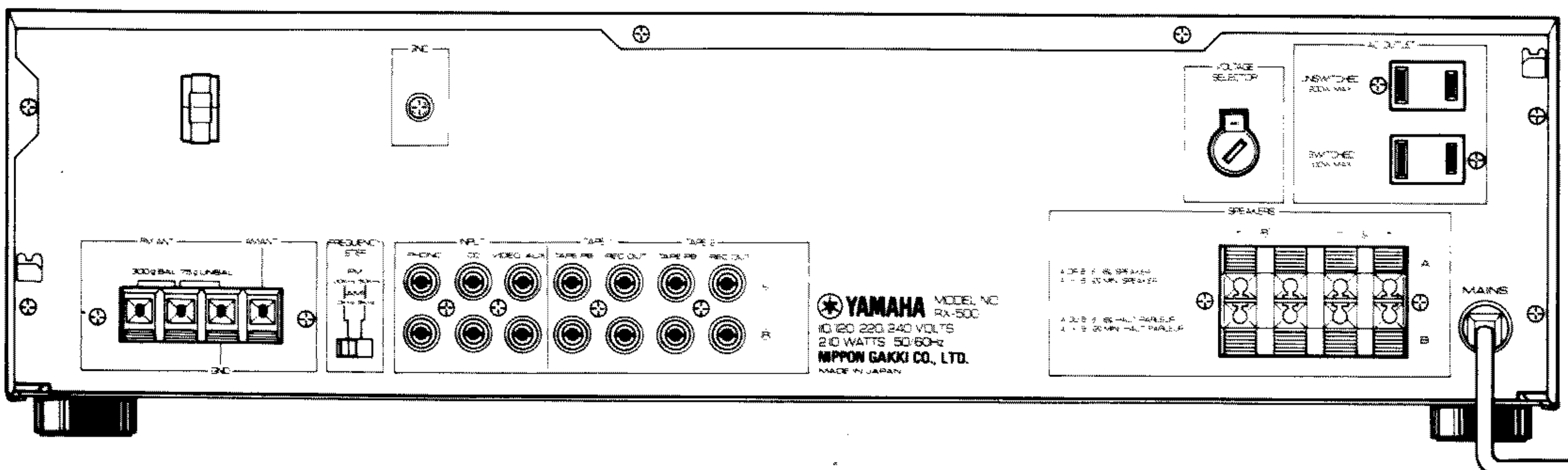
### European model



### Australian & British models

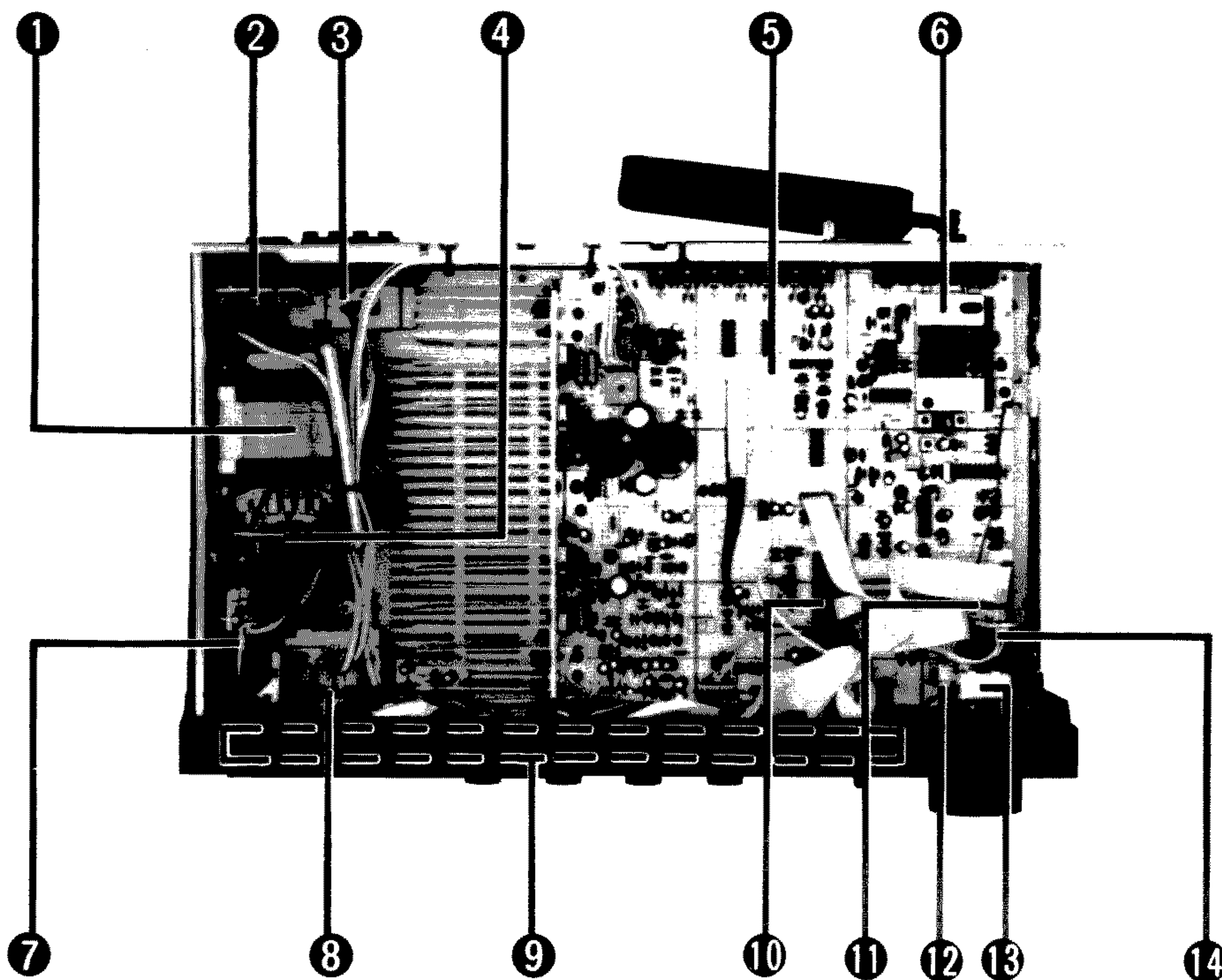


### Others model





## INTERNAL VIEW



- ① Power Transformer
- ② Main Circuit Board (9)
- ③ Main Circuit Board (3)
- ④ Main Circuit Board (11), (12)  
Top Side (12)  
Bottom Side (11)
- ⑤ Main Circuit Board (1)
- ⑥ FM Front-end Pack
- ⑦ Main Circuit Board (8)
- ⑧ Main Circuit Board (2)
- ⑨ Display Circuit Board
- ⑩ A.V Controller IC
- ⑪ PLL Controller IC
- ⑫ Main Circuit Board (4)
- ⑬ Potentiometer with Motor
- ⑭ Main Circuit Board (5)

## DISASSEMBLY PROCEDURES

(Remove parts in disassembly order as numbered)

### 1. Removal of Top Cover

Remove 7 screws ( ① ) in Fig. 1, and slide the Top Cover back and up.

### 2. Removal of Front Panel

Remove 4 screws ( ② ) and 4 hooks in Fig. 1, and pull the Front Panel forward.

### 3. Check of Main Circuit Board (1) and replacement of parts.

a. Remove 12 screws ( ③ ) in Fig. 1.

b. Push the Power switch on.

c. Remove the Main Chassis as shown in Fig. 2.

In this condition it is possible for you to check the Main Circuit Board (1), and replace the parts.

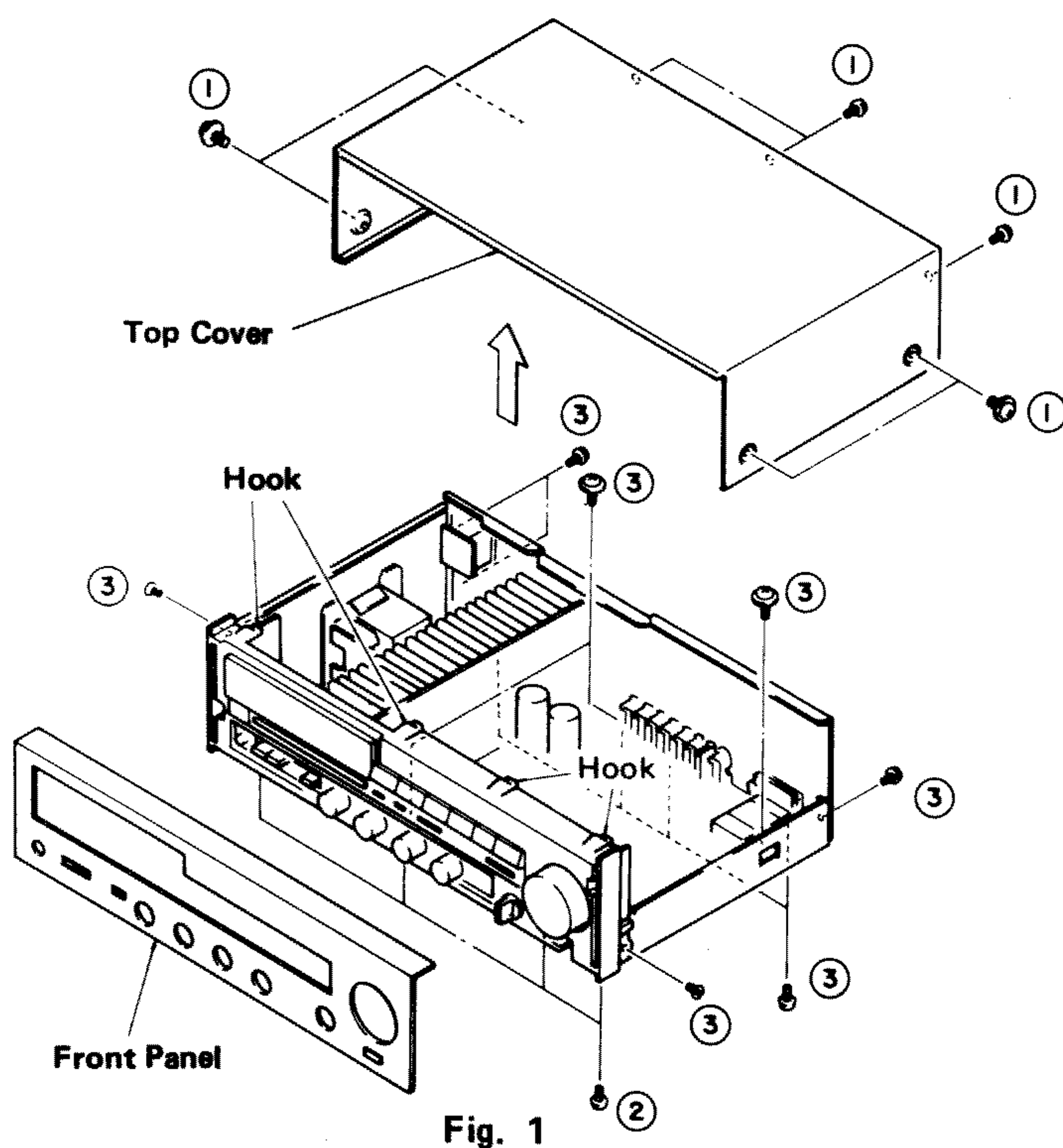


Fig. 1

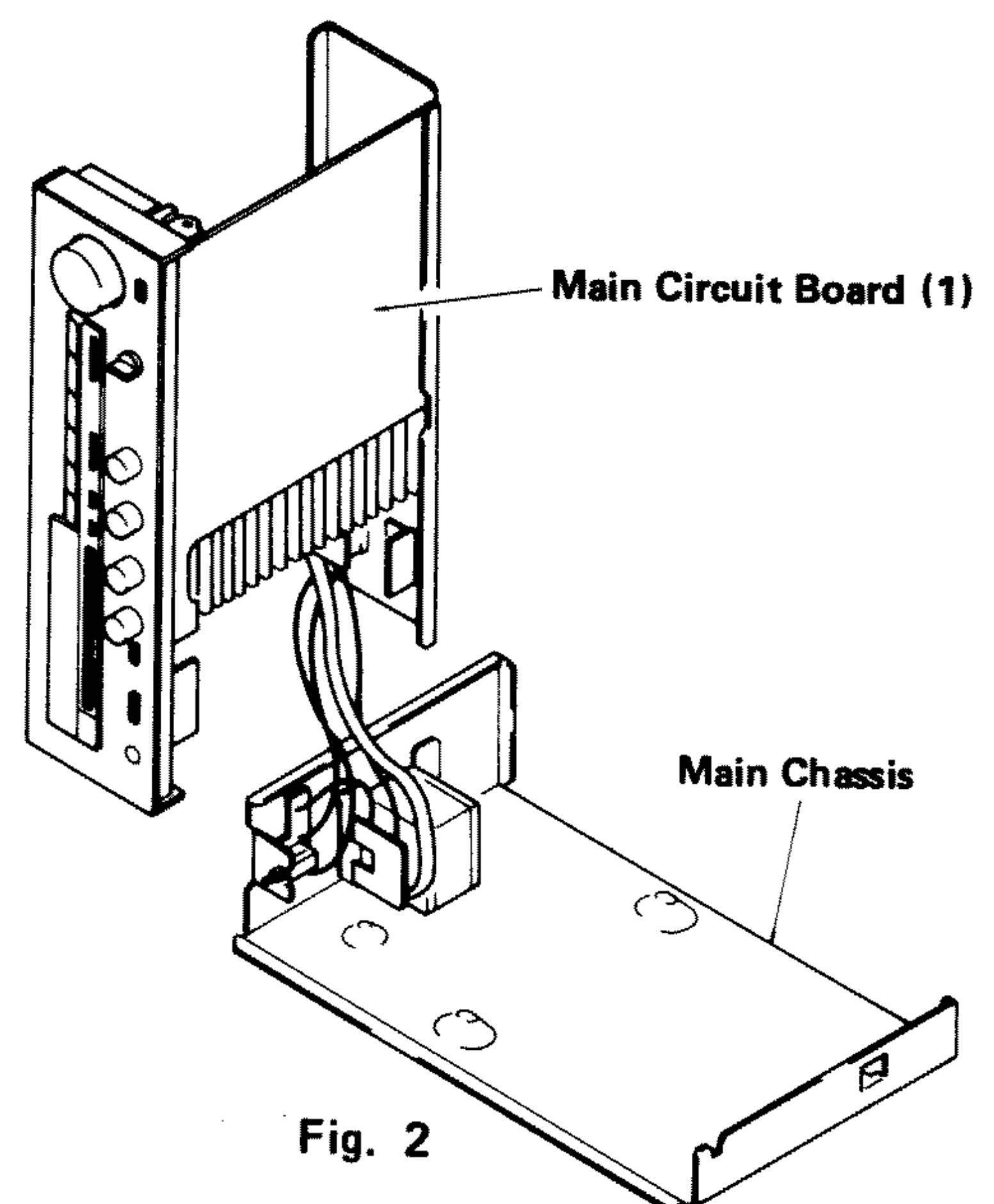
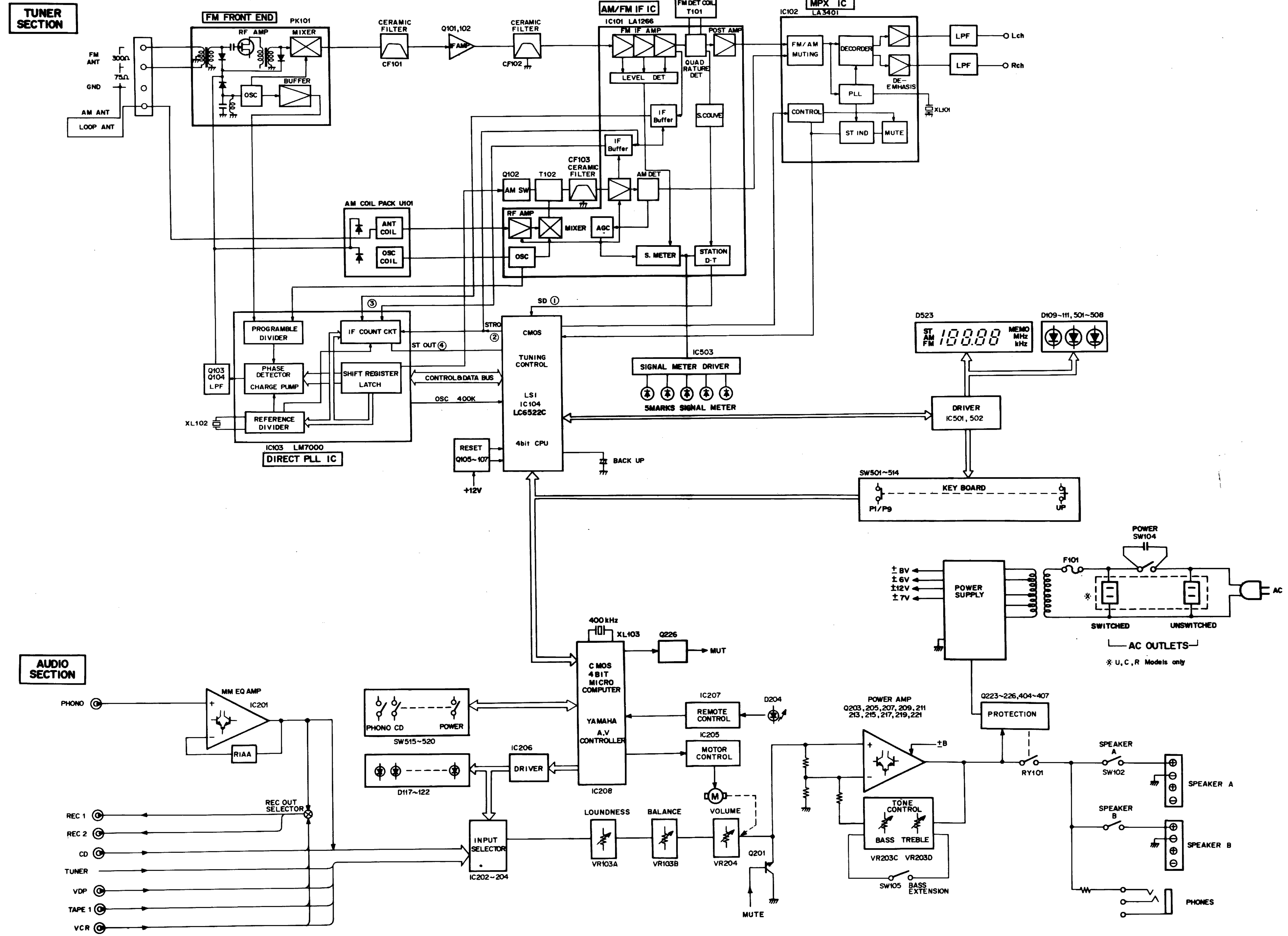


Fig. 2



■ BLOCK DIAGRAM

RX-500/500U



## ADJUSTMENTS

### <POWER SUPPLY CHECK>

Check that the following voltages are obtained respectively across each test point and ground on main circuit.

Test point	Rating or standard	Remark								
Q402 EMITTER	+11V ± 1V DC	Make sure that AC line voltage comes within <table border="1"> <thead> <tr> <th>Models</th> <th>AC line voltage</th> </tr> </thead> <tbody> <tr> <td>U, C</td> <td>120V ± 10%</td> </tr> <tr> <td>G</td> <td>220V ± 10%</td> </tr> <tr> <td>A, B</td> <td>240V ± 10%</td> </tr> </tbody> </table>	Models	AC line voltage	U, C	120V ± 10%	G	220V ± 10%	A, B	240V ± 10%
Models	AC line voltage									
U, C	120V ± 10%									
G	220V ± 10%									
A, B	240V ± 10%									
Q403 EMITTER	-11V ± 1V DC									
Q401 EMITTER	+7V ± 1V DC									
Q409 EMITTER	+5.7V ± 1V DC									
D203 ANODE	-11.5V ± 1V DC									

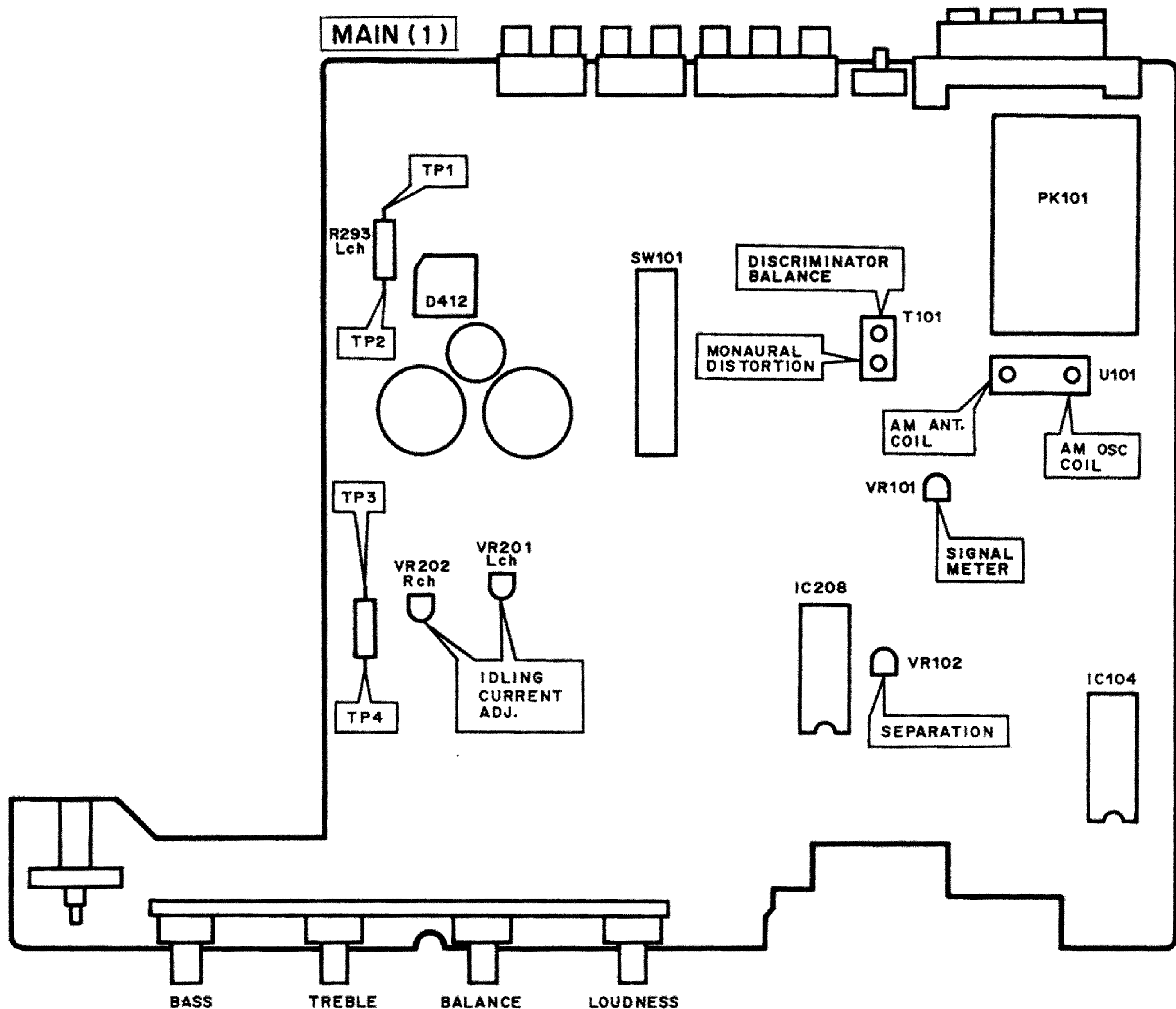
### <AUDIO SECTION>

#### ● IDLING CURRENT ADJUSTMENT

When replacing the power and drive transistors, adjust idling current. After the power has been turned on, age about 5 minutes in non loaded condition. Adjust VR201 (Lch) and VR202 (Rch) so that the voltage across the terminals of R293 (TP1 - TP2) and R294 (TP3 - TP4) come to 10mV ~ 15mV DC.

	Test points	Adjustment points	Rating
Lch	Across the terminals of R293 (TP1 - TP2)	VR201	10mV~15mV DC
Rch	Across the terminals of R294 (TP3 - TP4)	VR202	10mV~15mV DC

#### ● TEST POINTS

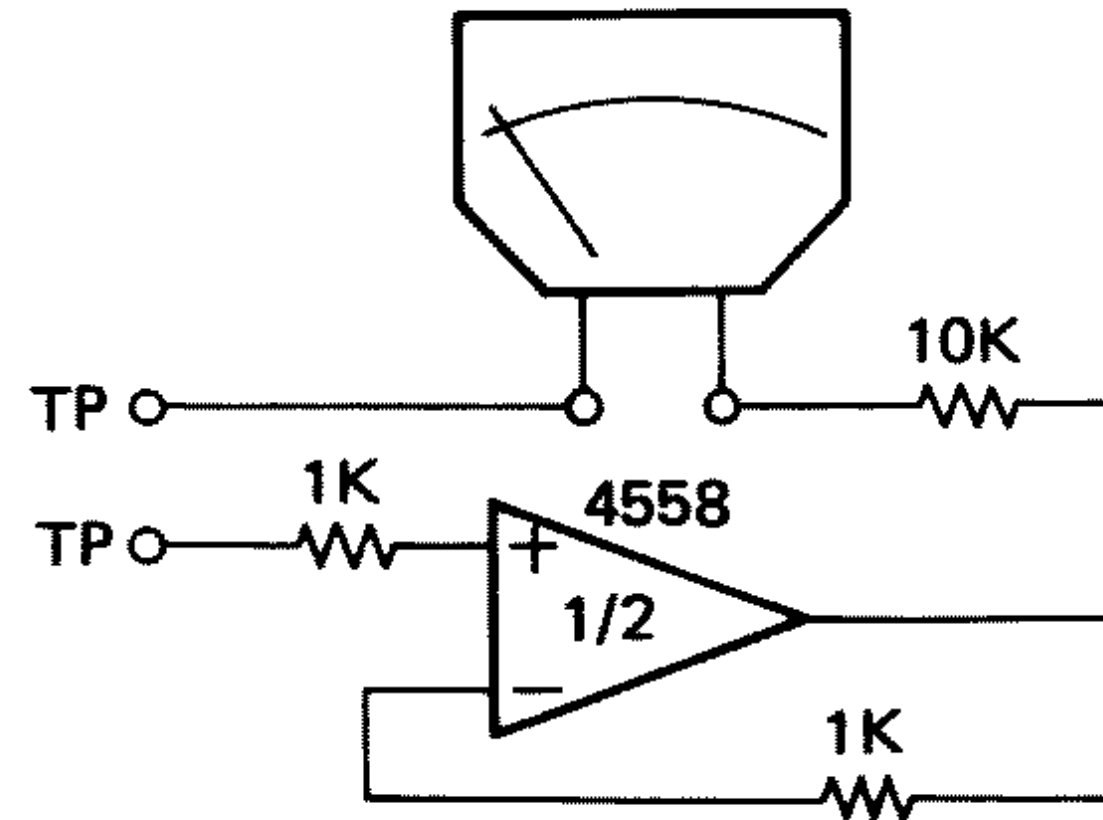




<FM TUNER SECTION>

- Use 19kHz L.P.F. to measure the REC OUT.
- Connect the auxiliary tuning meter (ji00036 or similar) to confirm the best tuned point.
- 100% modulation means that the Frequency Deviation is 75kHz. (R) (U) (C) (A) (B)
- For the G model, Frequency Deviation is 40kHz.
- For the G model, install the Matching Transformer and connect FM SG.

Auxiliary Tuning Meter



Step	Item to be Adjusted	Connection terminal	Instrument required	Adjustment locations	Adjustment method	Rating or standard	Remarks
1	Discriminator balance	300Ω FM ANT	FM SG 98MHz ± 1kHz 70dBμ (75.2dB) MONO 1kHz 100% MOD	T101 (CENTER)	Adjust the pointer of the auxiliary tuning meter points to "0" at tuned point.		
		TP ~ TP	Auxiliary tuning meter				
2	Confirmation of station tuned point set	300Ω FM ANT	FM SG 98MHz ± 1kHz 70dBμ (75.2dBf) MONO 1kHz 100% MOD	TUNING Key → UP or DOWN	Confirm that the auxiliary tuning meter deflects to "0" when turned to signal of FM SG.		
		NVcc ~ T.M	Auxiliary center meter				
3	Monaural distortion	300Ω FM ANT	FM SG 98MHz ± 1kHz 70dBμ (75.2dBf) MONO 1kHz 100% MOD	T101 (DIST.)	Reduce distortion to minimum.		
		REC OUT L, R	DIST. M L.P.F.				
4	Stereo distortion	300Ω FM ANT	FM SG, SSB 98MHz ± 1kHz 70dBμ (75.2dBf) STEREO L, R 1kHz, 100% MOD	Front-end IFT  ST indicator	Same as step 3		Confirm that ST indicator lights up.
		REC OUT L, R	DIST. M L.P.F.				
5	Confirmation of sensitivity	300Ω 75Ω (G model) FM ANT  REC OUT L, R	FM SG 98MHz±1KHz 70dBμ (81.2dBf) MONO 1kHz 100% MOD  ACVM L.P.F.		Lower FM SG output level so that S/N becomes 30dB	Less than 4dBμ (15.2 dBf) G model only Less than 6dBμ (17.2) dBf)	
6	Separation	300Ω FM ANT	FM SG, SSG 98MHz ± 1kHz 70dBμ (75.2dBf) STEREO L, R 1kHz, 100% MOD	VR102 (SEPARATION)	Reduce output level to minimum.	Separation more than 40dB	
		REC OUT L, R	A.C.V.M L.P.F.				
7	Confirmation of discriminator balance	300Ω 75Ω (G model) FM ANT	FM SG 98MHz±1KHz 70dBμ (81.2dBf) MONO 1kHz 100% MOD		Confirm that the auxiliary tuning meter points to "0" at tuned point.		If not: Repeat from step 1.
		REC OUT L, R	Auxiliary center meter or DCVM				

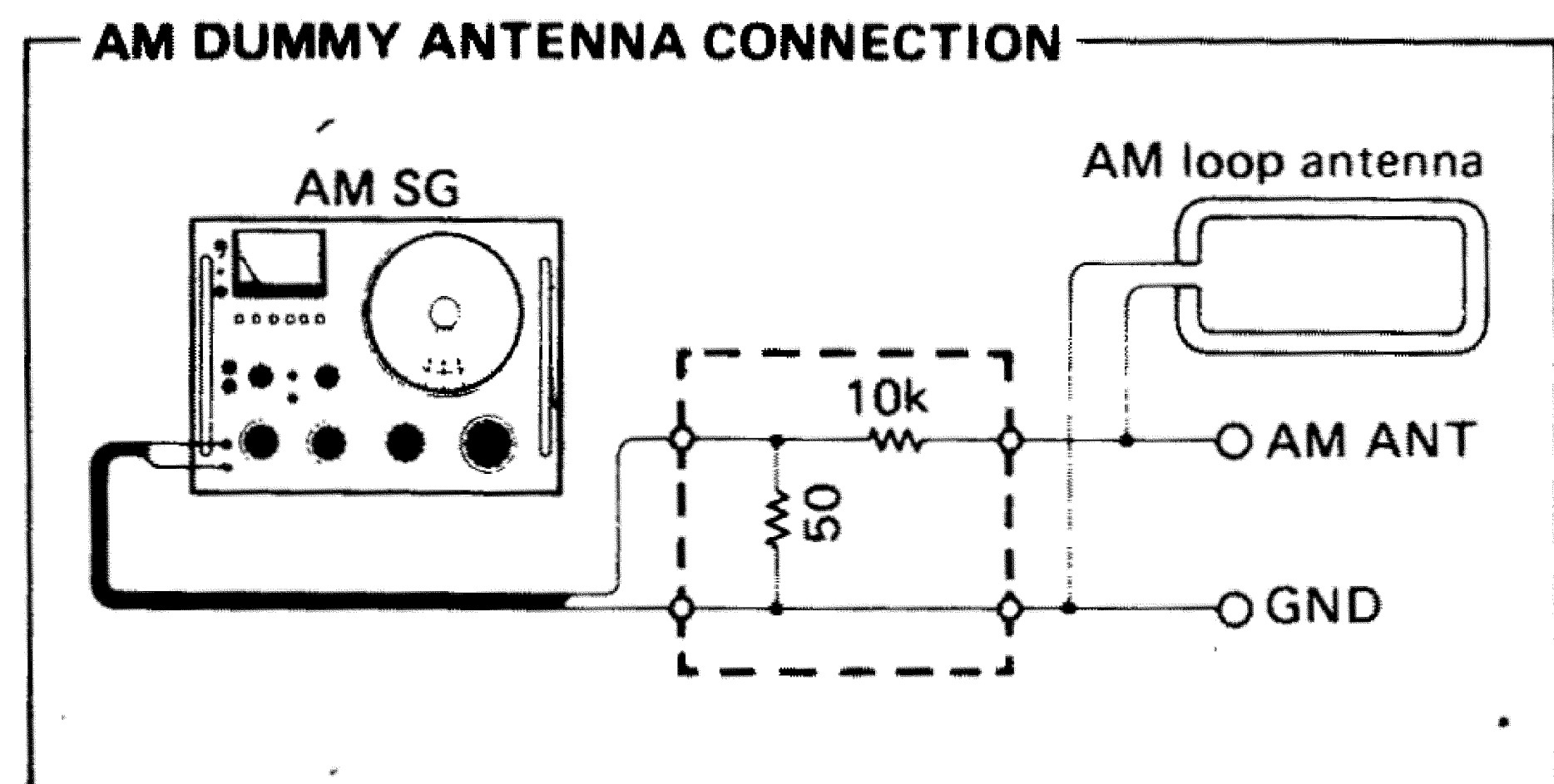
Step	Item to be Adjusted	Connection terminal	Instrument required	Adjustment locations	Adjustment method	Rating or standard	Remarks
8	Full-scale signal quality	300Ω 75Ω (G model) FM ANT	FM SG, SSG 98MHz±1KHz 70dBμ (81.2dBf) MONO 1kHz, 100% MOD	VR101 (FM)	Adjust the all signal quality indicators light up.		Confirm that all signal quality indicators goes out at detuned point.
		REC OUT L, R	DCVM				
9	Confirmation of auto search reception	300Ω 75Ω (G model) FM ANT	FM SG 98MHz±1KHz 25dBμ (36.2dBf/ 75Ω), 32dBμ (43.2dBf/300Ω) MONO 1kHz 100% MOD			Confirm that auto search reception is possible with the tuning UP/DOWN key.	Confirm that muting is performed at auto reception.

Note:  $X \text{ dB}\mu = x + 11.2\text{dB}\mu\text{f}$

- Shorting IC104 (2 pin) and GND while set at FM will result in automatic memory of each preset from P1 to P3 as given in the right table. This is convenient when making an adjustment.

<AM TUNER SECTION>

- Connect the AM loop antenna to the AM ANT terminals.
- Connect the AM dummy antenna for adjustment.



Step	Item to be Adjusted	Connection terminal	Instrument required	Adjustment location	Adjustment method	Rating or standard
1	Confirmation of sensitivity	AM ANT	AM SB AM dummy antenna 630kHz ± 0.1kHz 1080kHz ± 0.1kHz 1440kHz ± 0.1kHz 400Hz, 30% MOD	PRESET STATION key P8/P16	Adjust T102 to maximize detector output.	Less than 58dBμ
		REC OUT	A.C.V.M. DST. M.			
2	Confirmation of auto search reception	AM ANT	AM SG AM dummy antenna 1080kHz ± 0.1kHz 60dBμ 400Hz, 30% MOD	TUNING key UP or DOWN		Confirm the auto search reception with the tuning key



<DIGITAL CONTROL SECTION>

Step	Confirmation item	Connection terminal	Instrument required	Operation key	Confirmation method
1	Preset memory	300Ω FM ANT	FM SG, SSG 98MHz ± 1kHz 70dBμ (75.2 dBf) STEREO, L, R 1kHz, 100% MOD	FUNCTION Key TUNING MODE key TUNING key (Up or DOWN) MEMORY key PRESET STATION key	1 Receive FM 98MHz by means of auto search. 2 Set P1-P8 → P1-P8 indicator lights. 3 Press MEMORY key → MEMORY indicator flashes about 5 seconds. 4 Press P2 → MEMORY indicator goes OFF P1 of PRESET STATION indicator lights.
		AM ANT	AM SG AM dummy antenna 1080kHz ± 0.1kHz 80dBμ 400Hz, 30% MOD	P1-P8/P9-P16	5 Receive AM 1080kHz 6 Press MEMORY key → MEMORY indicator flashes about 5 seconds. 7 Press P2 → MEMORY indicator goes OFF P2 of PRESET STATION indicator lights.
		300Ω FM ANT AM ANT	FM SG, SSG  AM SG AM dummy antenna		8 Press P1 and P2 and check that content is read out. → P1 and P2 of RESET STATION indicator lights.
2	Tuning mode	Same as step 1	Same as step 1	FUNCTION key TUNING MODE key TUNING key (UP or DOWN)	Tune to FM 98MHz and AM 1080kHz, and check that when receiving MAN'L/MONO, FM reception become forced mono TUNING MODE indicator → Goes out ST indicator → Goes out
				PRESET STATION key P1, P2	Check that tuning operation stops when tuned while AUTO searching. TUNING MODE indicator → lights up ST indicator → lights up
3	Last channel memory			POWER key	1 Read out P2. 2 Turn OFF POWER Switch. 3 Turn ON POWER Switch after 5 seconds. 4 P2 content should come out. P2 of PRESET STATION indicator lights.

## ■ μ-COM DATA

### ● IC104: LC6522C

1-chip type 4-bit microcomputer which incorporates 2048 x 8 bit ROM (for programming) and 128 x 4 bit RAM (for data memory)

Terminal No.	Description	I/O	Function
1	PE <sub>3</sub>	OUT	Muting out. MUTE ON → "H"
2	VDD	IN	+5V
3	PF <sub>0</sub> /SI	OUT	Key scan out. D1 D2 (Refer to table 1) D3 D4
4	PF <sub>1</sub> /SO		
5	PF <sub>2</sub> /SCK		
6	PF <sub>3</sub> /INT		
7	PG <sub>0</sub>	IN	Key scan input. K1 K2 (Refer to table 1) K3 K4
8	PG <sub>1</sub>		
9	PG <sub>2</sub>		
10	PG <sub>3</sub>		
11	PA <sub>0</sub>	IN	Control signal input. REM0 REM1 (Refer to table 2)
12	PA <sub>1</sub>		
13	PA <sub>2</sub>	IN	Detection input for power down "L" → Back up mode
14	PA <sub>3</sub>	IN	TEST terminal ("H" in normal condition) TEST terminal is "L" while set will result in automatic memory of specific frequency.
15	OSC <sub>2</sub>	OUT	Terminal for clock oscillating circuit.
16	OSC <sub>1</sub>	IN	
17	TEST	IN	Gnd
18	V <sub>ss</sub>	IN	Gnd
19	RES	IN	Reset input. "L" in reset mode.
20	PC <sub>0</sub>	OUT	Control data output. (LM7001, LC7580)
21	PC <sub>1</sub>	OUT	Forwarding clock of data.
22	PC <sub>2</sub>	OUT	Forwarding select of data. LM7001 ACTIVE → "H" LC7580 ACTIVE → "H"
23	PC <sub>3</sub>		
24	PD <sub>0</sub>	IN	Destination symbol.
25	PD <sub>1</sub>		
26	PD <sub>2</sub>		
27	PD <sub>3</sub>	OUT	Muting output for display.
28	PE <sub>0</sub>	IN	Prohibit search stop. "L" in stop mode.
29	PE <sub>1</sub>	IN	Destination MONO/STEREO. "L" in stereo mode.
30	PE <sub>2</sub>	OUT	Compulsion mono mode control. Compulsion mono → "H"

### ● KEY MATRIX

OUTPUT INPUT	D1 (Pin 3)	D2 (Pin 4)	D3 (Pin 5)	D4 (Pin 6)
K1 (Pin 7)	FM/AM (SW101)	UP (SW103)	P1/P9 (SW107)	P5/P13 (SW111)
K2 (Pin 8)	AUTO/MAN'L (SW102)	DOWN (SW104)	P2/P10 (SW108)	P6/P14 (SW112)
K3 (Pin 9)		P1-8/P9-16 (SW105)	P3/P11 (SW109)	P7/P15 (SW113)
K4 (Pin 10)		MEMORY (SW106)	P4/P12 (SW110)	P8/P16 (SW114)

Table 1

### ● REMOTO CONTROL SIGNAL (U, C models only)

REM 0 (Pin 11)	REM 1 (Pin 12)	CONTROL
L	H	PRESET UP
H	L	PRESET DOWN
H	H	P1-P8/P9-P16

Table 2



## ■ $\mu$ -COM DATA

### ● IC208: LC6505C

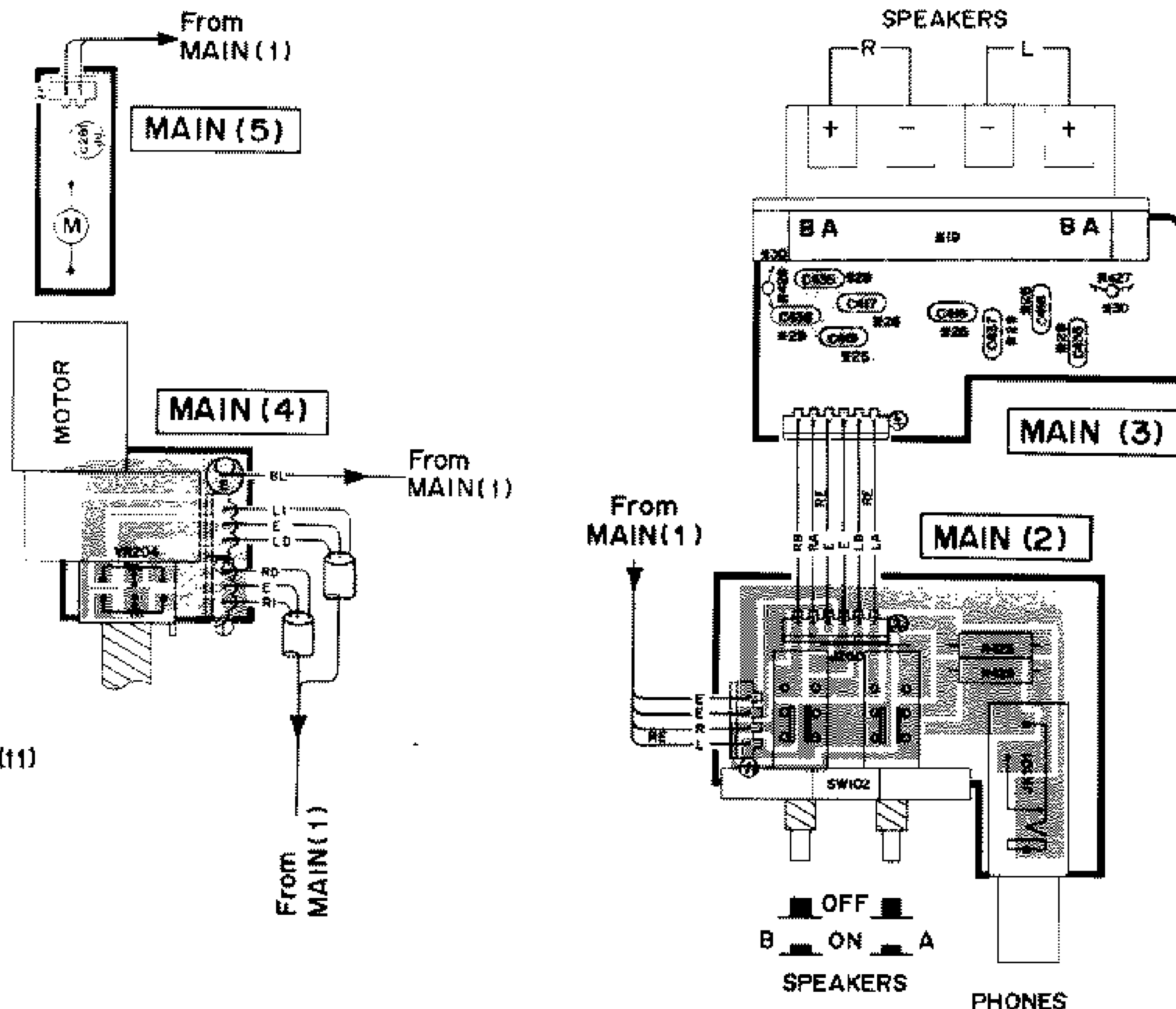
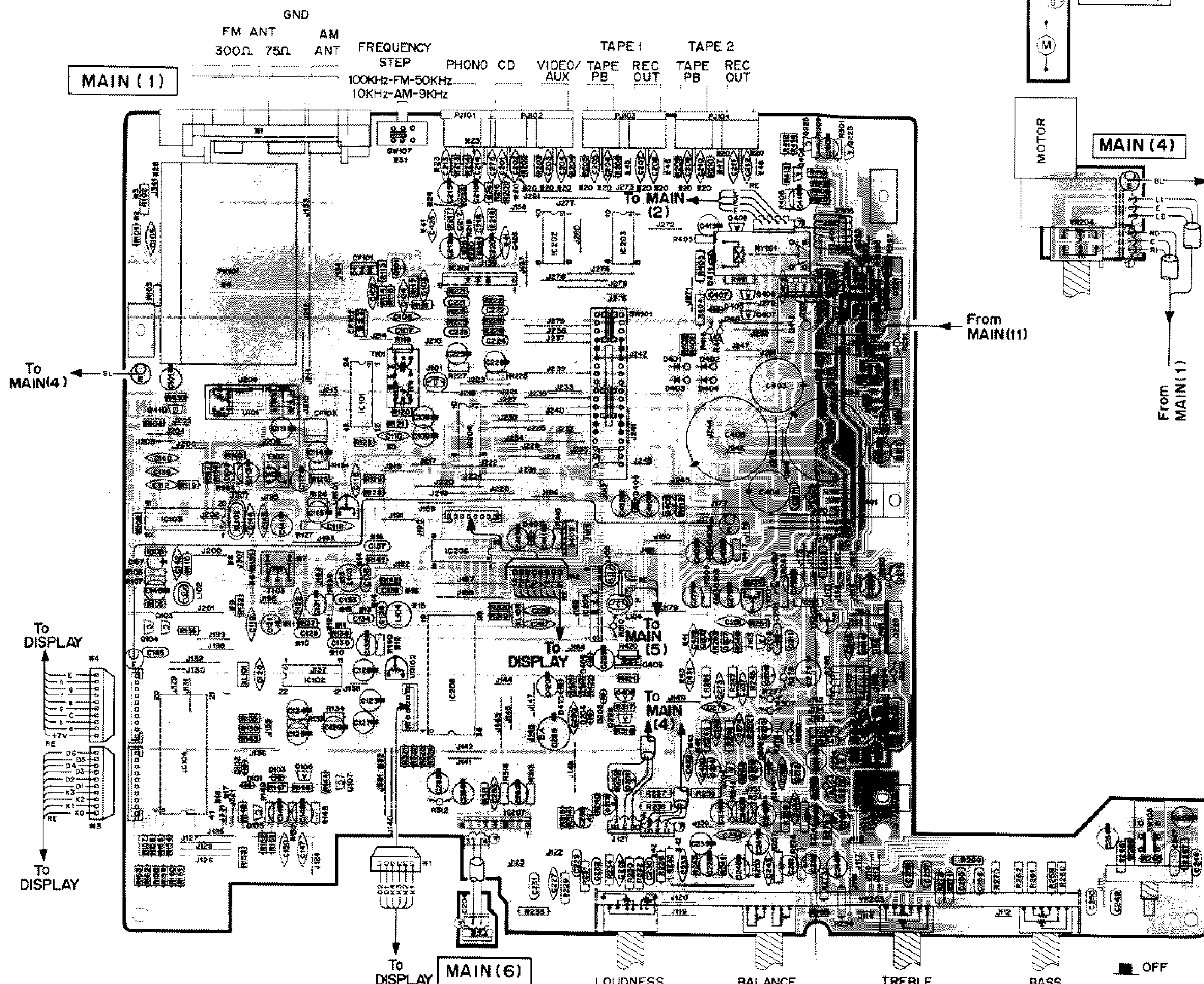
1-chip type 4-bit microcomputer with incorporates 1024 x 6 bit ROM (for programming) and 64 x 4 bit RAM (for data memory)

Terminal No.	Description	I/O	Function
1	PA <sub>2</sub>	IN	INPUT port A <sub>0</sub> ~ A <sub>3</sub> Input by 4 bit and decision by 1 bit for branch are possible. Also used for HALT mode cancel request input.
2	PA <sub>3</sub>		
3	PB <sub>0</sub>	IN	INPUT port B <sub>0</sub> ~ B <sub>3</sub> Input by 4 bit and decision by 1 bit for branch are possible.
4	PB <sub>1</sub>		
5	PB <sub>2</sub>		
6	PB <sub>3</sub>		
7	PC <sub>0</sub>	IN/ OUT	IN/OUT common port C <sub>0</sub> ~ C <sub>3</sub> When INPUT, input by 4 bit and decision by 1 bit for branch are possible. When OUTPUT, output by 4 bit and set or reset by 1 bit are possible.
8	PC <sub>1</sub>		
9	PC <sub>2</sub>		
10	PC <sub>3</sub>		
11	PC <sub>0</sub>	IN/ OUT	IN/OUT common port D <sub>0</sub> ~ D <sub>3</sub> When INPUT, input by 4 bit and decision by 1 bit for branch are possible. When OUTPUT, output by 4 bit and set or reset by 1 bit are possible.
12	PD <sub>1</sub>		
13	PD <sub>2</sub>		
14	PD <sub>3</sub>		
15	PE <sub>0</sub>	OUT	OUTPUT port E <sub>0</sub> ~ E <sub>3</sub> Output by 4 bit and set or reset by 1 bit are possible. Input of output latch content by 4 bit and decision of output latch by 1 bit for branch are possible.
16	PE <sub>1</sub>		
17	PE <sub>2</sub>		
18	PE <sub>3</sub>		
19	$\overline{\text{RES}}$	IN	Reset input terminal
20	TEST	IN	LSI test terminal usually connected to V <sub>ss</sub> (0V).
21	V <sub>ss</sub>	—	Connected to 0V of power supply.
22	OSC 1	IN	Used by supplying external clock. Also used with OSC2 terminal and C.R. ceramic oscillator when using internal clock oscillation.
23	OSC 2	OUT	Attached to oscillatory circuit for internal clock oscillation.
24	PF <sub>0</sub>	OUT	OUTPUT port F <sub>0</sub> ~ F <sub>3</sub> Output by 4 bit and set or reset by 1 bit are possible. Input of output latch content by 4 bit and decision of output latch by 1 bit for branch are possible.
25	PF <sub>1</sub>		
26	PF <sub>2</sub>		
27	PF <sub>3</sub>		
28	PG <sub>0</sub>	OUT	OUTPUT port G <sub>0</sub> ~ G <sub>3</sub> Output by 4 bit and set or reset by 1 bit are possible. Input of output latch content by 4 bit and decision of output latch by 1 bit for branch are possible.
29	PG <sub>1</sub>		
30	PG <sub>2</sub>		
31	PG <sub>3</sub>		
32	PH <sub>0</sub>	OUT	OUTPUT port H <sub>0</sub> ~ H <sub>3</sub> Output by 4 bit and set or reset by 1 bit are possible. Input to output latch content by 4 bit and decision of output latch by 1 bit for branch are possible.
33	PH <sub>1</sub>		
34	PH <sub>2</sub>		
35	PH <sub>3</sub>		
36	PI <sub>0</sub>	OUT	OUTPUT port I <sub>0</sub> , I <sub>1</sub> Output by 2 bit and set or reset by 1 bit are possible. Input of output latch content by 2 bit and decision of output latch by 1 bit for branch are possible.
37	PI <sub>1</sub>		
38	$\overline{\text{HOLD}}$	IN	HOLD mode request input terminal
39	$\overline{\text{TINT}}$	IN	Interrupt request input terminal
40	V <sub>DD</sub>	IN	Power supply terminal usually connected to +5V terminal.
41	PA <sub>0</sub>	IN	INPUT port A <sub>0</sub> ~ A <sub>3</sub> Input by 4 bit and decision by 1 bit branch are possible. Also used for HALT mode cancel request input.
42	PA <sub>1</sub>		



**PRINTED CIRCUIT BOARD (Pattern Side)**

(Note) 文字面 : Component Side



Note: \* Marked

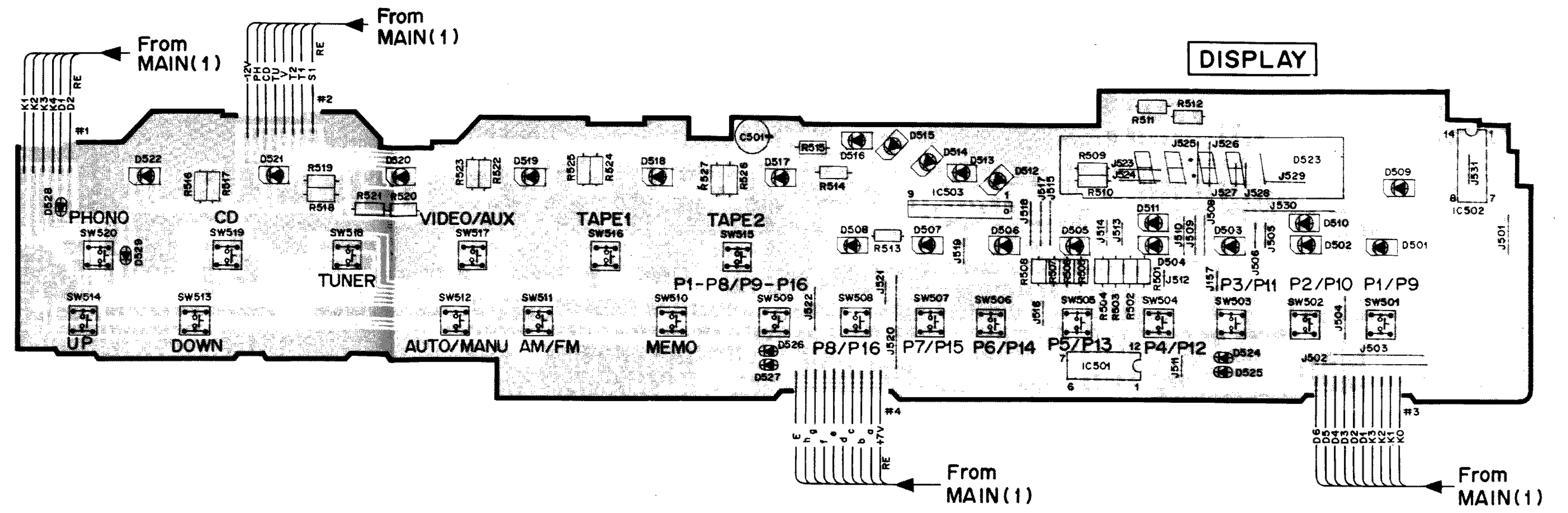
	R	U.C.	A.B.	G
1	Antenna Terminal	VA84590		LA00580
2	R101	OPEN		470K
3	R102	OPEN		220K
4	PK101	VC21930		VC21940
5	C110	100P		OPEN
6	R131	OPEN		4.7K
7	T103	OPEN		GE20053
8	J307	J307		
9	R132	10K		22K
10	C129, 130	1200P	750P/100	390P/100
11	R137, 138	62K		120K
12	R139, 140	2.2K		3.3K
13	C133, 134	OPEN		2700P
14	C135, 136	JUMPER		1000P
15	L103, 104	OPEN		GE90185
16	C137, 138	1500P		390P
17	J321		O	
18	J331			O
19	Speaker Terminal	V884580		VC17060
20	C201-212	OPEN		390P
22	J351			
23	C213, 214	OPEN		100P
24	R215, 216	150		2.2K
25	C217, 218	220P		330P
26	C416-419	OPEN		0.022
28	J341			J341
29	C435-438	OPEN		2200P
30	R427, 428	OPEN		2.2
31	SW107	SW107		
32	J381			
33	R429	OPEN	1/2P 2.2M	
34	AC Outlet	LB40145	LB40146	OPEN
35	J361			
36	SW106	SW106		
37	LB201880			O
38	LB201880	O	O	
39	LB201880	O		
40	C433	OPEN		0.01
41	C425, 426, 429, 430	OPEN		220P
42	R235, 236	470		820
43	C431, 432	OPEN		330P
45	R207	JUMPER		2.2K
46	R208	JUMPER		2.2K
47	R211	JUMPER		2.2K
48	R212	JUMPER		2.2K



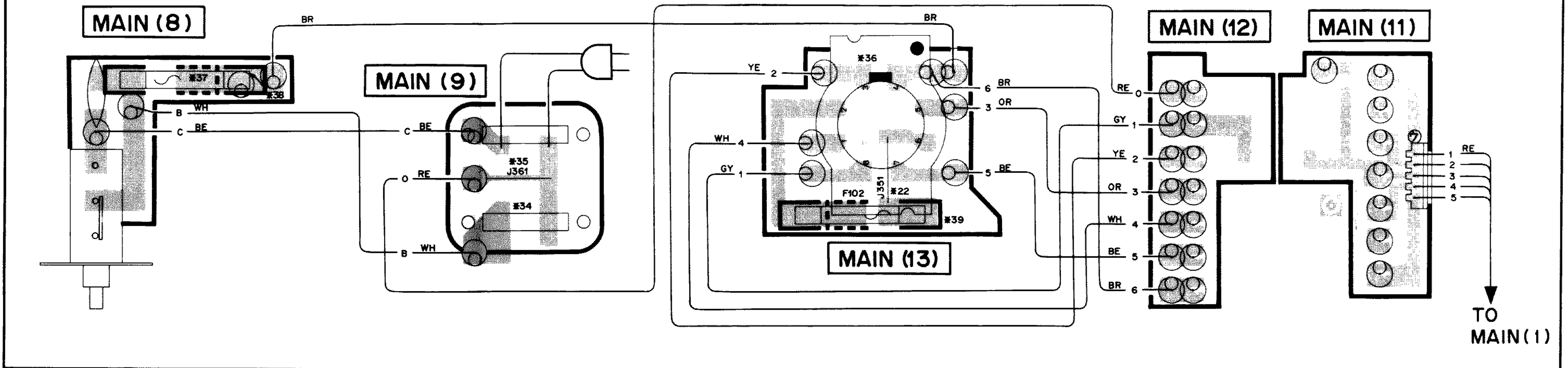


PRINTED CIRCUIT BOARD (Pattern Side)

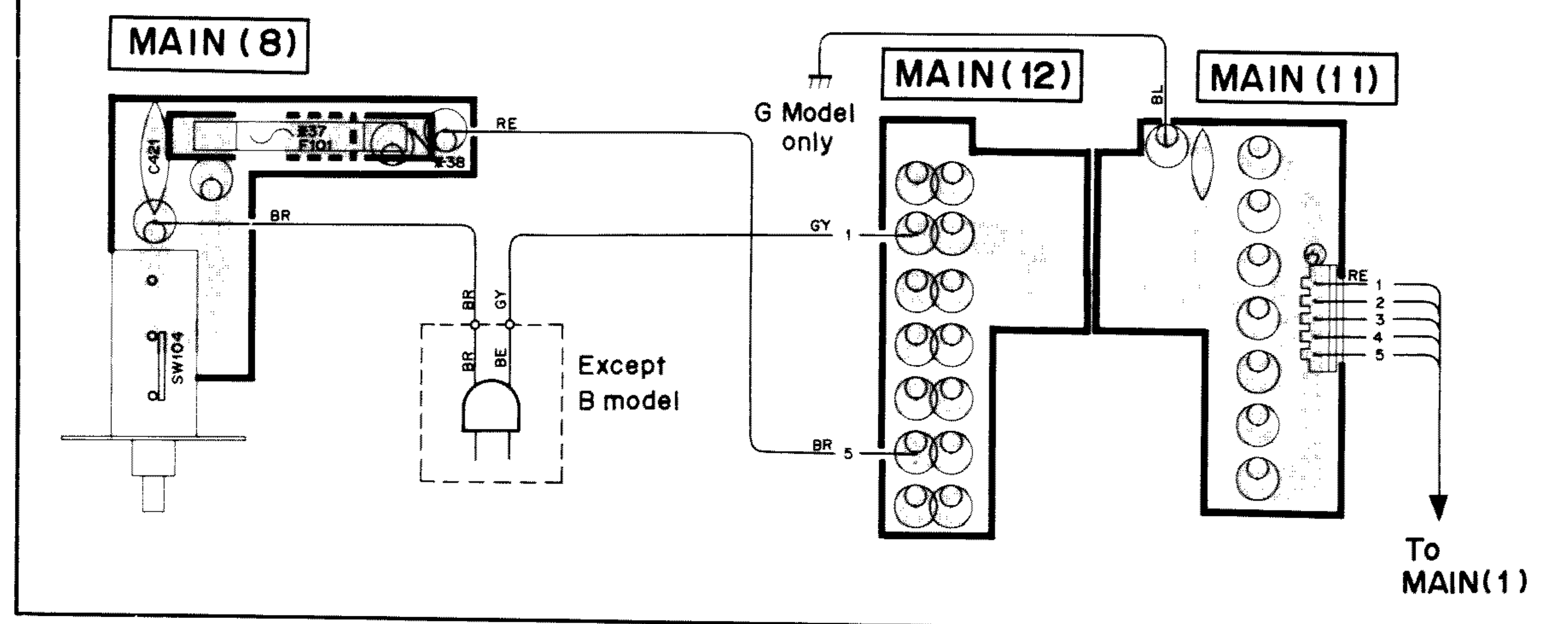
(Note) 文字面 : Component Side



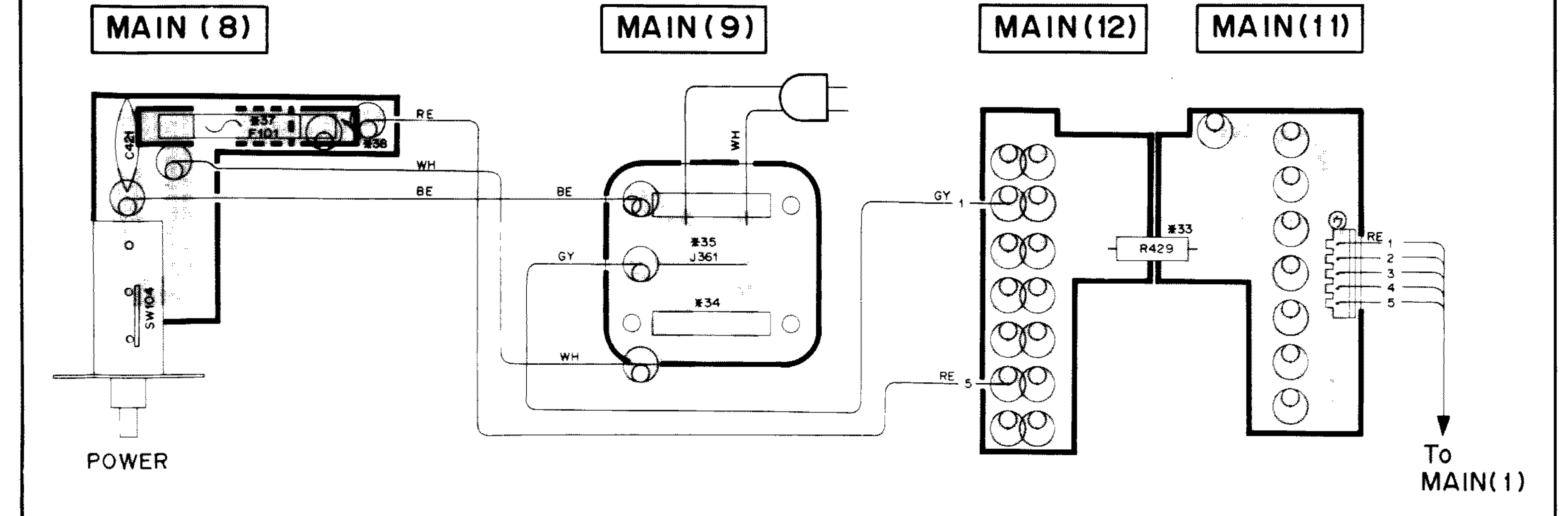
OTHER Model



A, B, G Models



U, C Models



1  
2  
3  
4  
5  
6  
7







5

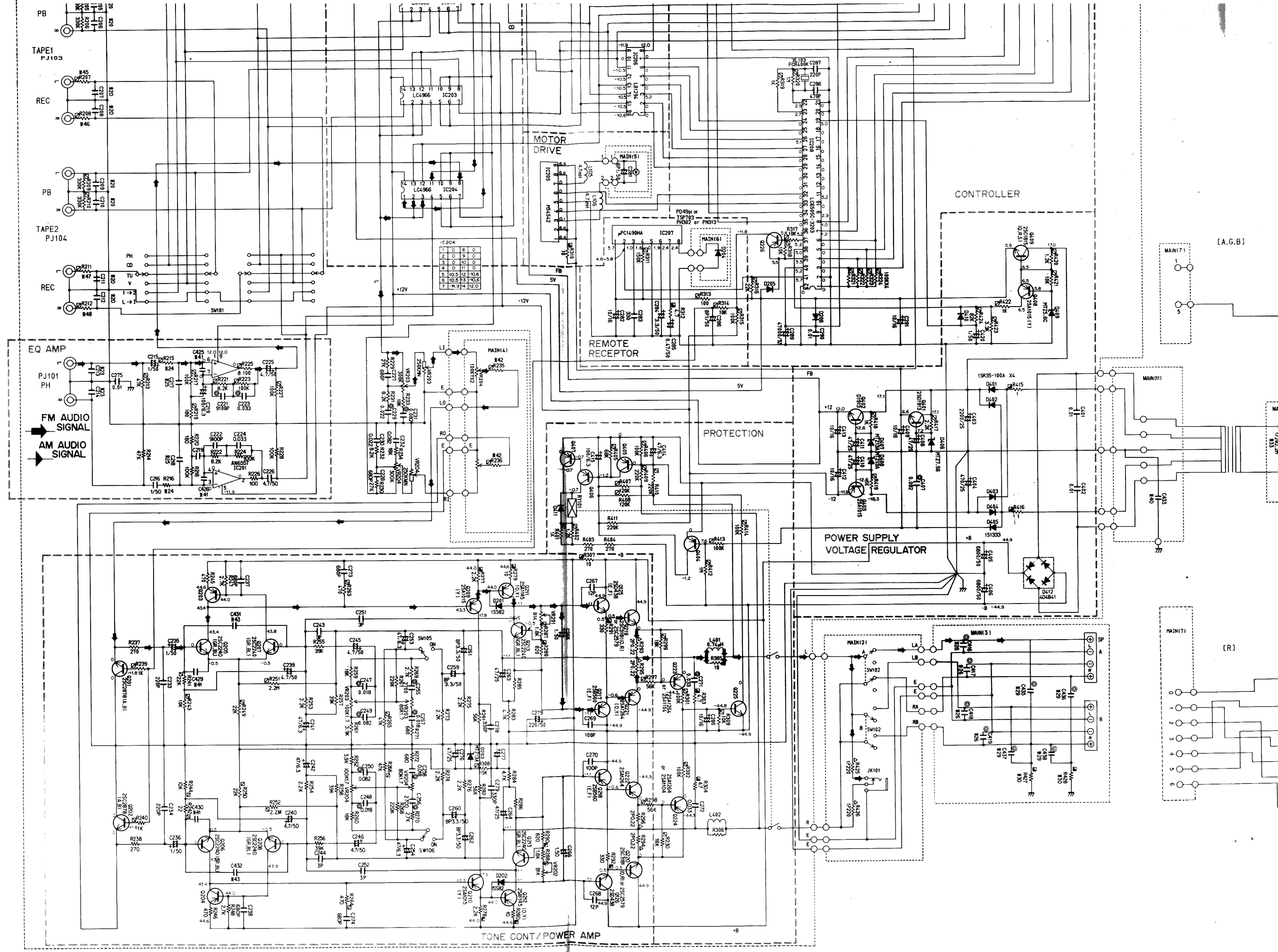
6

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8

9

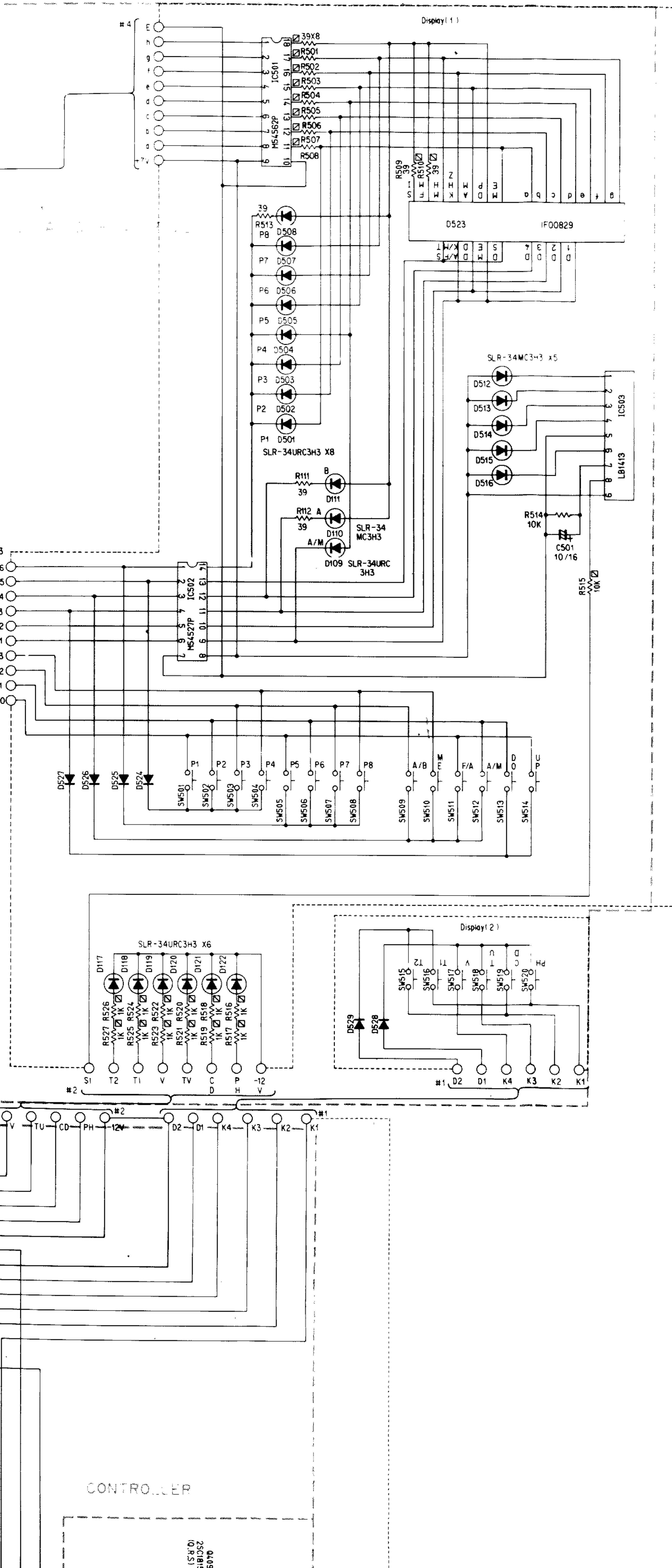
10



[A.G.B.]

[R]



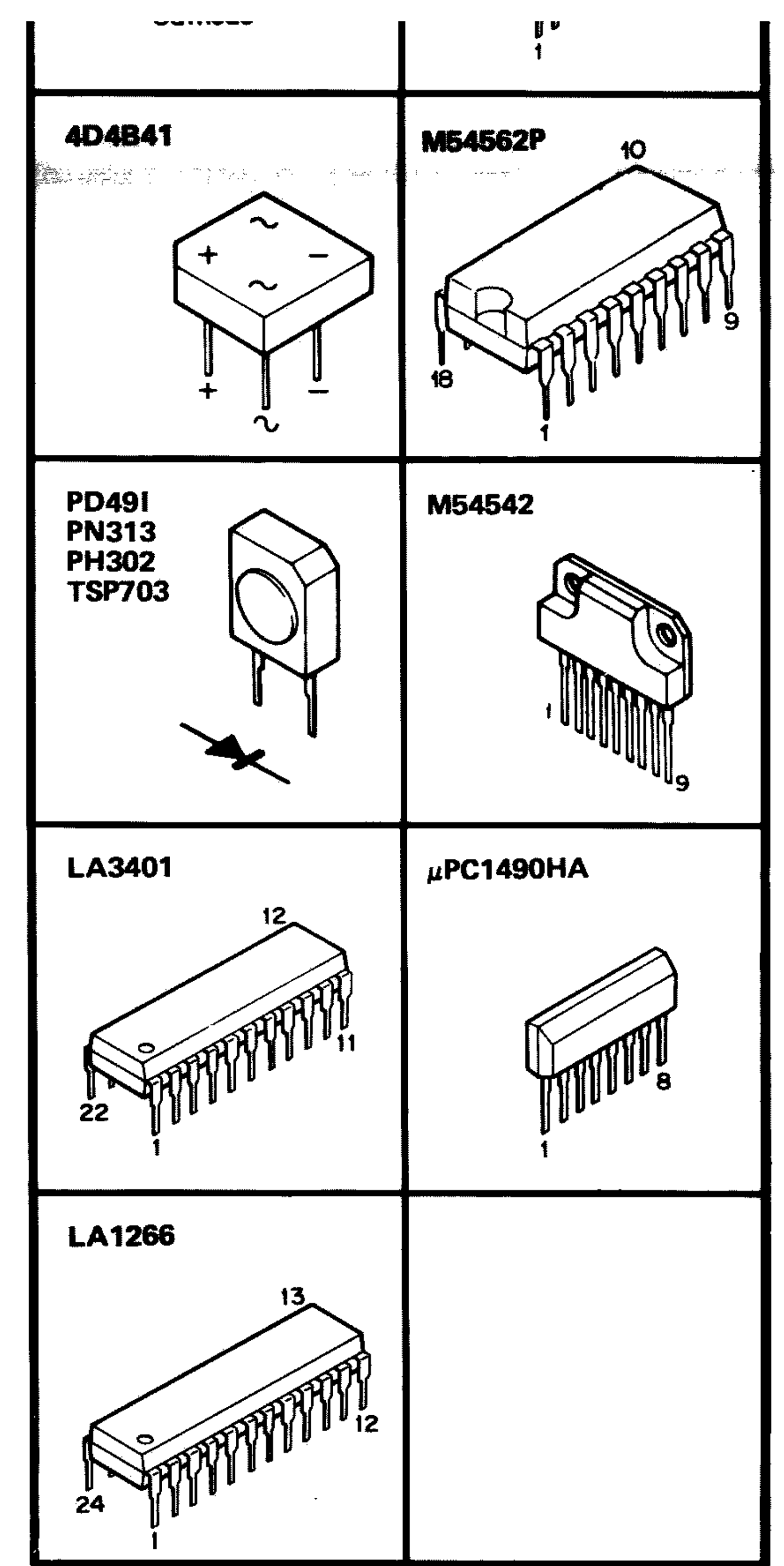
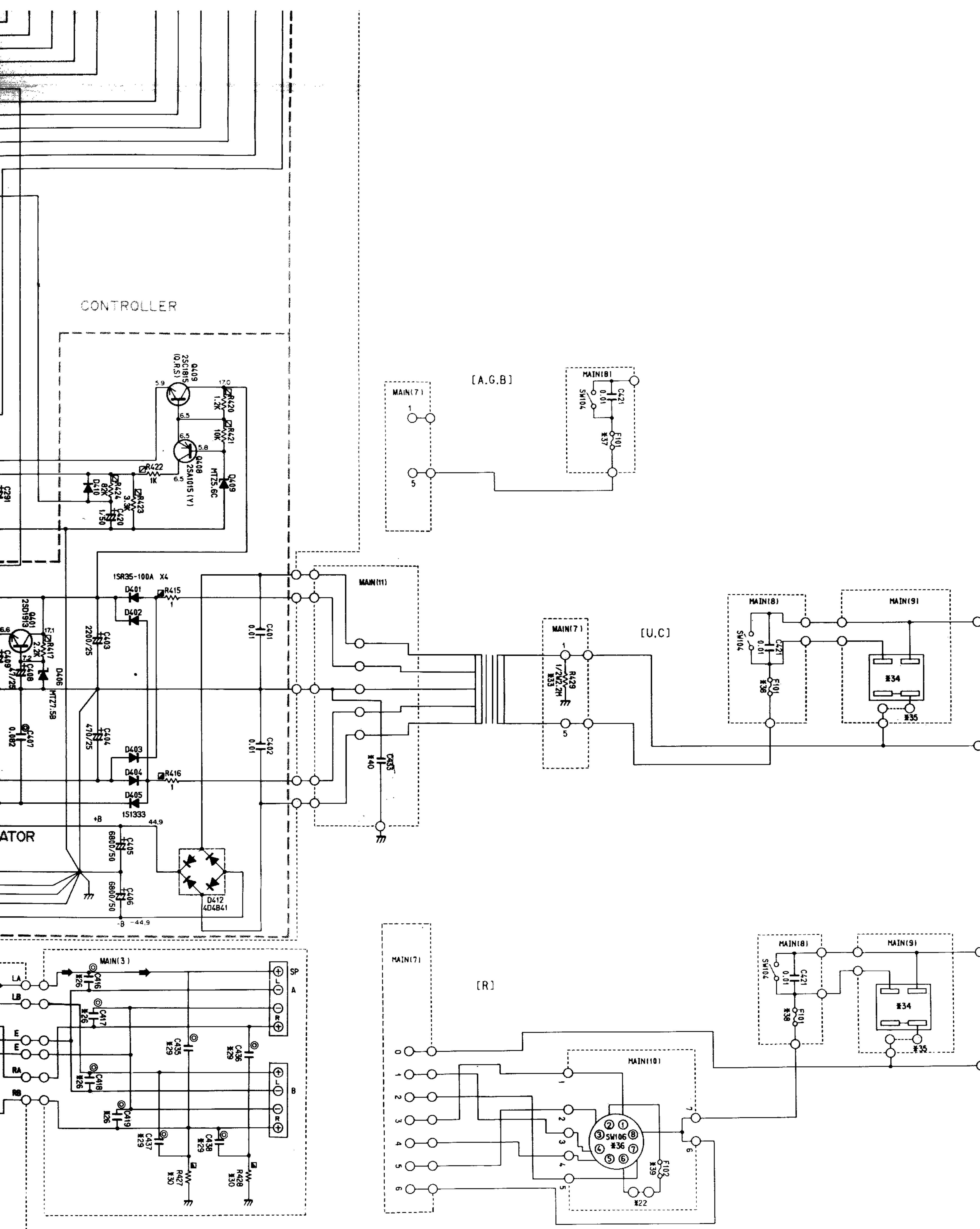


Note: \* Marked

*		R	U.C.	A.B.	G
1	Antenna Terminal	VA84590			LA00580
2	R101	OPEN			470K
3	R102	OPEN			220K
4	PK101	VC21930			VC21940
5	C110	100P			OPEN
6	R131	OPEN			4.7K
7	T103	OPEN			GE20053
8	J307	J307			
9	R132	10K			22K
10	C129, 130	⊙ 1200P		Ⓟ 750P/100	Ⓟ 390P/100
11	R137, 138	62K			120K
12	R139, 140	2.2K			3.3K
13	C133, 134	OPEN			2700P
14	C135, 136	JUMPER			1000P
15	L103, 104	OPEN			GE90185
16	C137, 138	1500P			390P
17	J321	-	○		-
18	J331	-	-	○	-
19	Speaker Terminal	VB84590			VC17060
20	C201~212	OPEN			390P
22	J351	J351	-		-
23	C213, 214	OPEN			100P
24	R215, 216	150			2.2K
25	C217, 218	220P			330P
26	C416~419	OPEN			0.022
28	J341	-	-		J341
29	C435~438	OPEN			2200P
30	R427, 428	OPEN			2.2
31	SW107	SW107	-		-
32	J381	○			-
33	R429	OPEN	1/2P 2.2M		-
34	AC Outlet	LB40145	LB40146	OPEN	OPEN
35	J361	J361			-
36	SW106	SW106	-		-
37	LB201880	-	-	○	○
38	LB201880	○	○	-	-
39	LB201880	○	-	-	-
40	C433	OPEN			0.01
41	C425, 426, 429, 430	OPEN			220P
42	R235, 236	470			820
43	C431, 432	OPEN			330P
45	R207	JUMPER			2.2K
46	R208	JUMPER			2.2K
47	R211	JUMPER			2.2K
48	R212	JUMPER			2.2K

<p>2SA1015 2SA1317 2SC1809 2SC1846 2SC2240 2SC2878 2SC3330</p>	<p>M54527P LC4966</p>
<p>2SA1145 2SB560 2SD438</p>	<p>LC6522C</p>
<p>2SA1310 2SC3312</p>	<p>LC6505C</p>
<p>2SD1913</p>	<p>LM7000N</p>
<p>2SA1264 2SC3181</p>	<p>LB1413 AN6557</p>
<p>1SR35-100AT-93X 1SS82 MTZ7.5B 1SS133 MTZ12A MA182 MTZ5-6C MTZ5-6C</p>	<p>LB1294</p>
<p>4D4B41</p>	<p>M54562P</p>
<p>PD491 PN313 PH302 TSP703</p>	<p>M54542</p>





**CAPACITOR**

REMARKS	PARTS NAME	
NO MARK	ELECTROLYTIC CAPACITOR	
NO MARK	CERAMIC CAPACITOR	
	POLYESTEL FILM CAPACITOR (MYLAR)	
	POLYSTYRENE FILM CAPACITOR	
	MICA CAPACITOR	
	POLY PROPYLENE FILM CAPACITOR	
	SEMICONDUCTIVE CERAMIC CAPACITOR	

**RESISTOR**

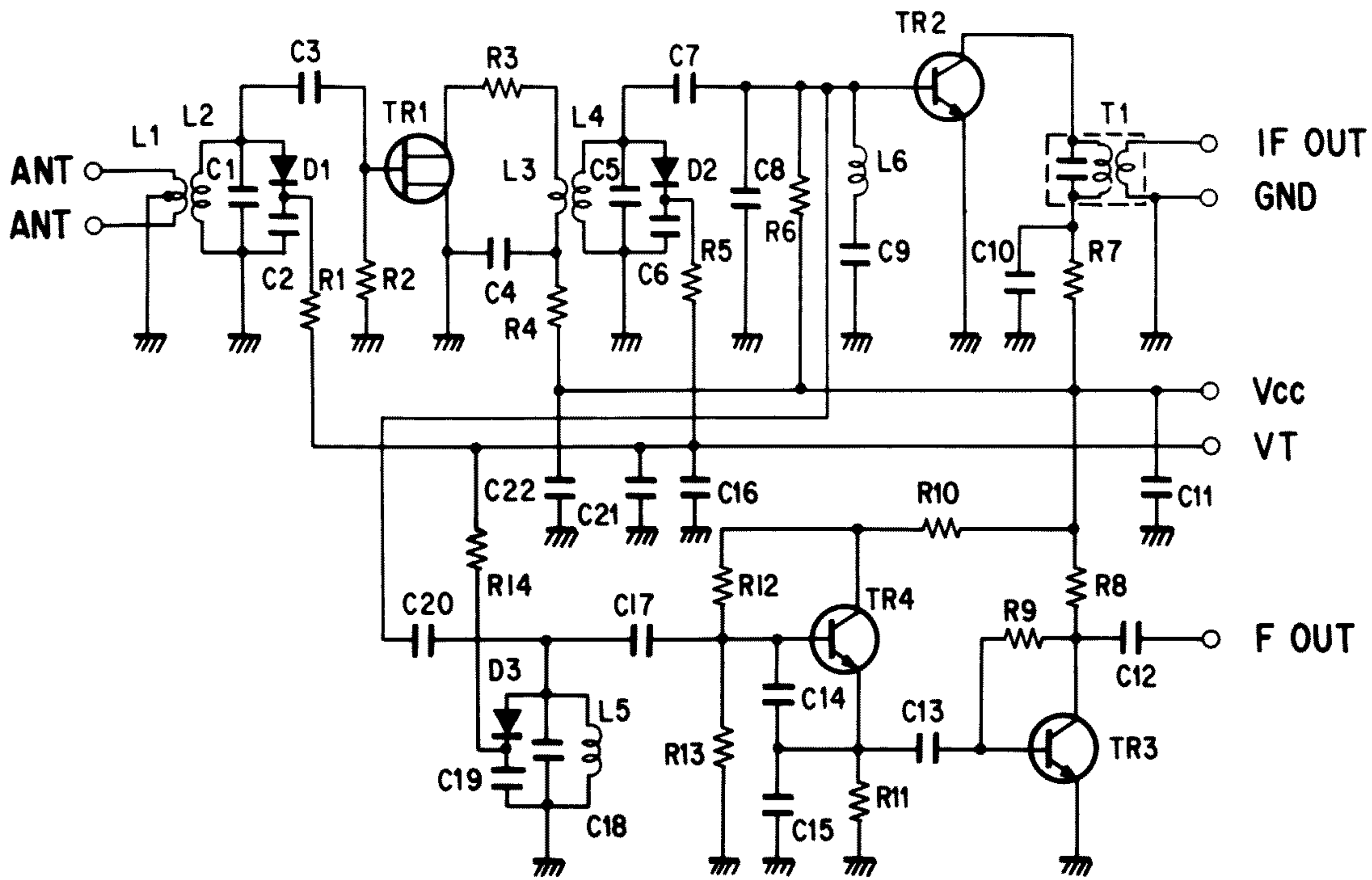
REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR
	METAL OXIDE FILM RESISTOR
	METAL FILM RESISTOR
	METAL PLATE RESISTOR
	FIRE PROOF CARBON FILM RESISTOR
	SEMENT MOLDED RESISTOR
	SEMI VARIABLE RESISTOR
	1/6W CARBON FILM RESISTOR

**CAUTION**

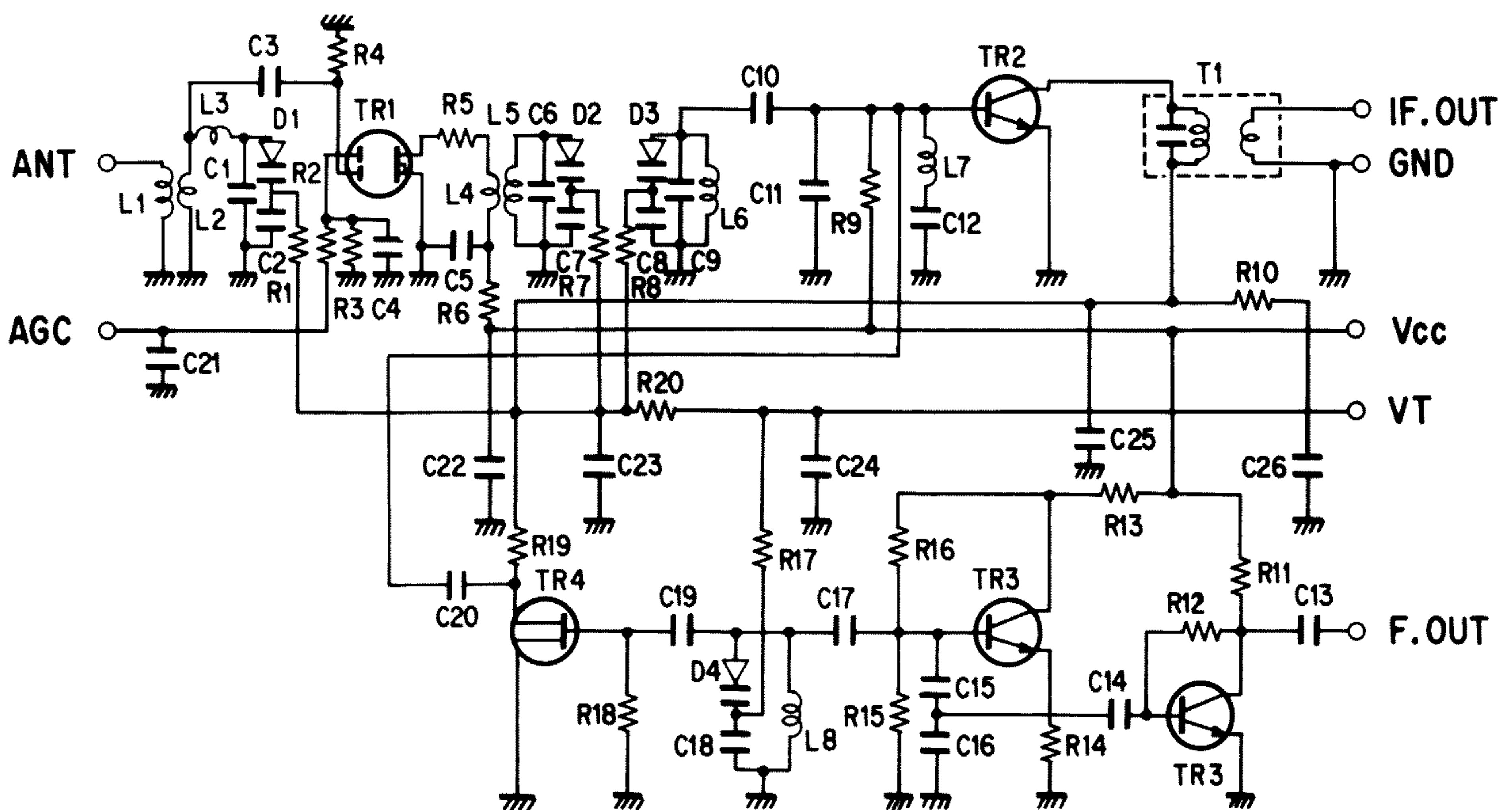
- Components having special characteristics are marked  $\Delta$  and must be replaced with parts having specifications equal to those originally installed.
- \* The Voltages are measured at FM reception mode.  
The Voltages ( ) are at AM reception mode.
- \* All voltages are measured with a 10M $\Omega$ /V DC electric volt meter.
- \* Schematic diagram is subject to change without notice.

● FRONT END PACK (PK101)

R.U.C.A.B models



G model



RX-500/500U

1

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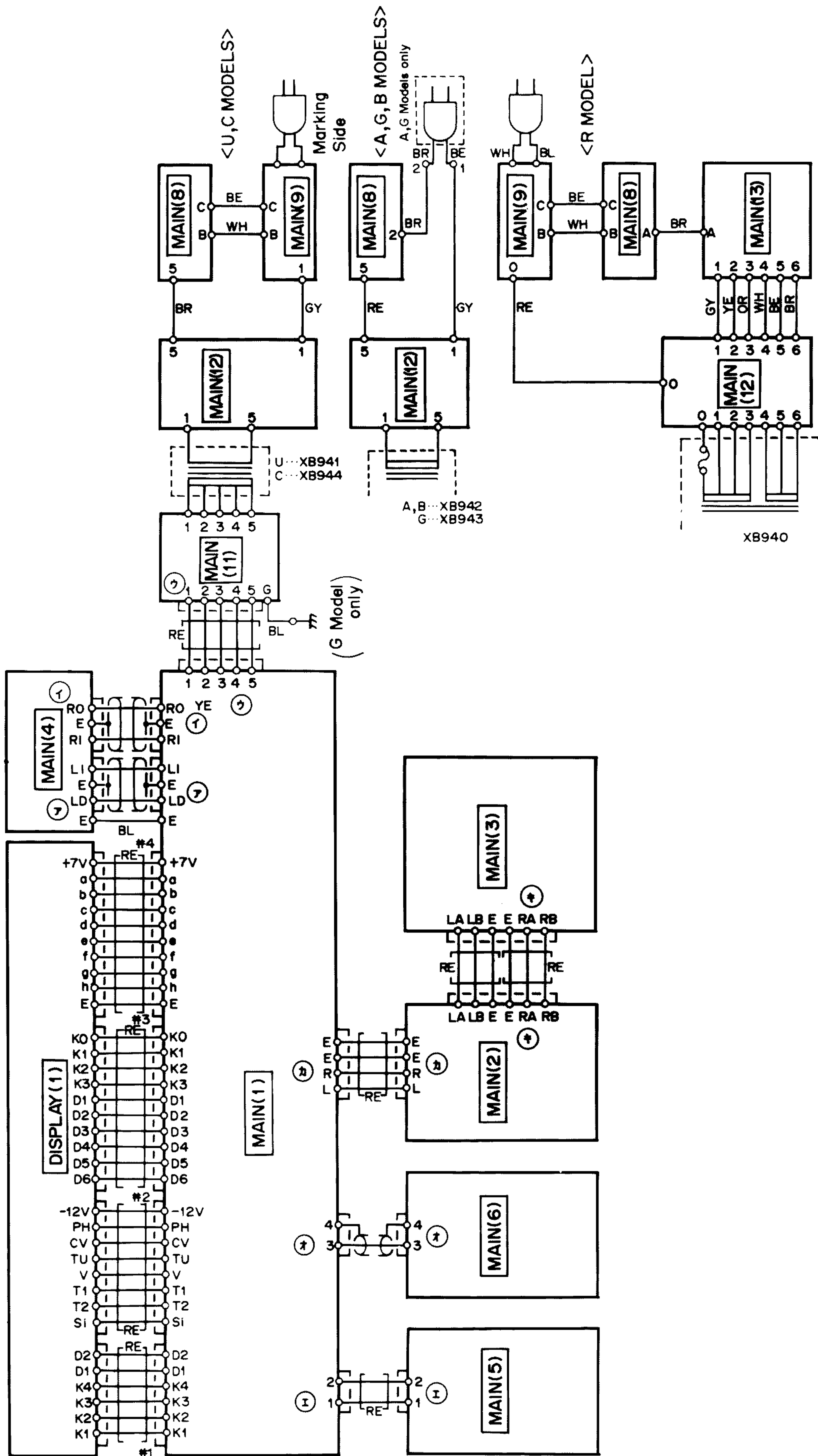
6

7



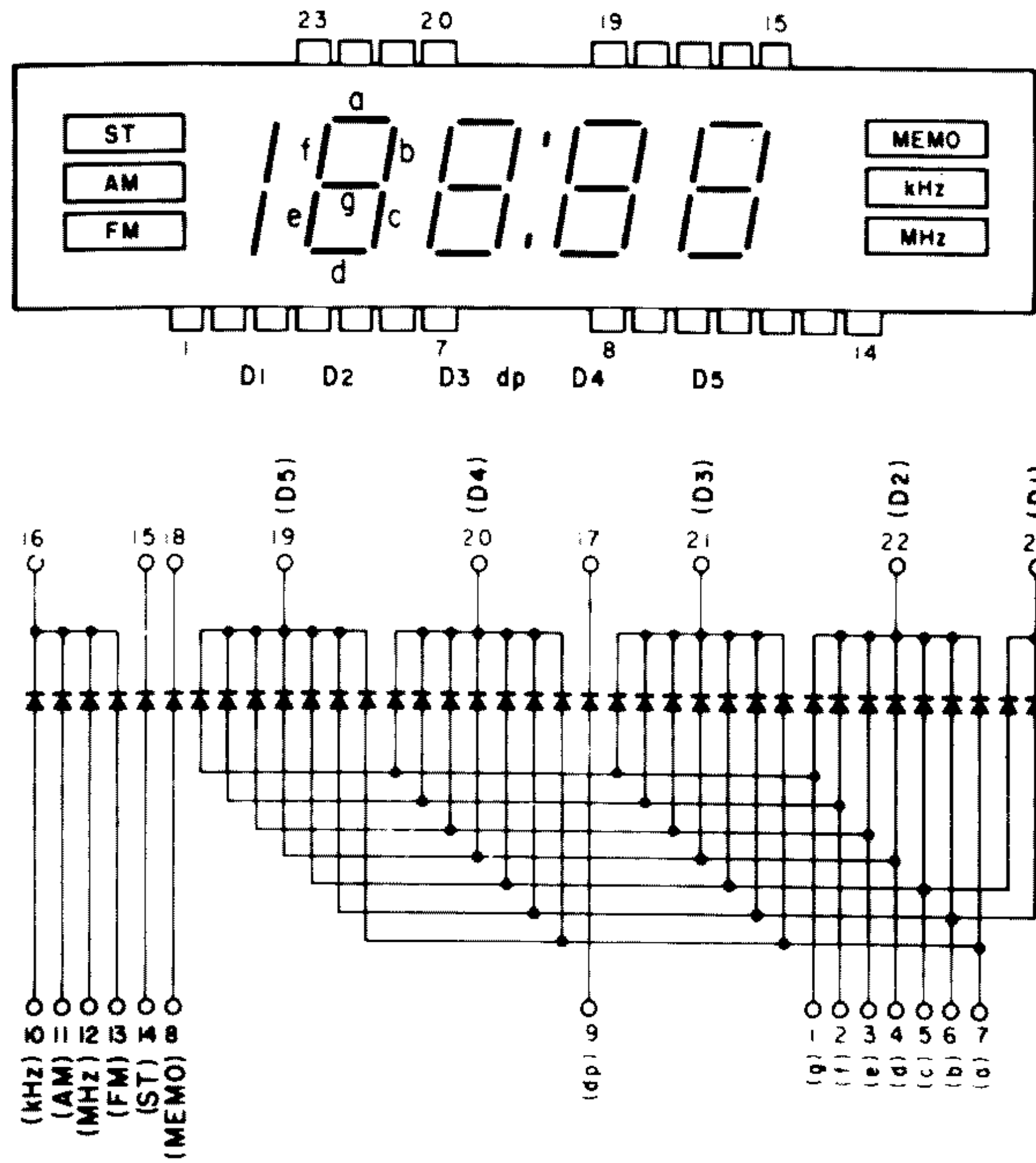
■ WIRING

RX-500/500U



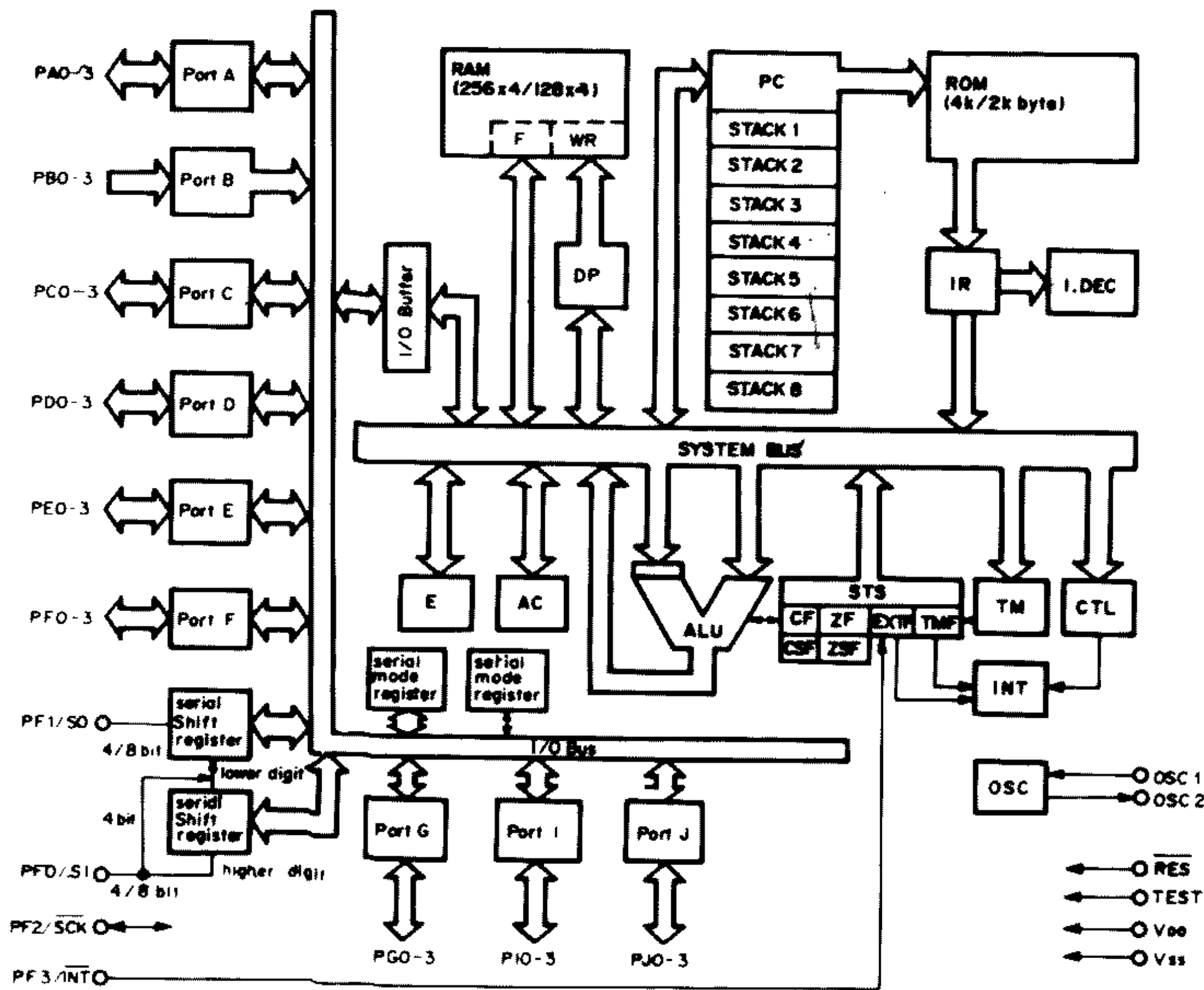
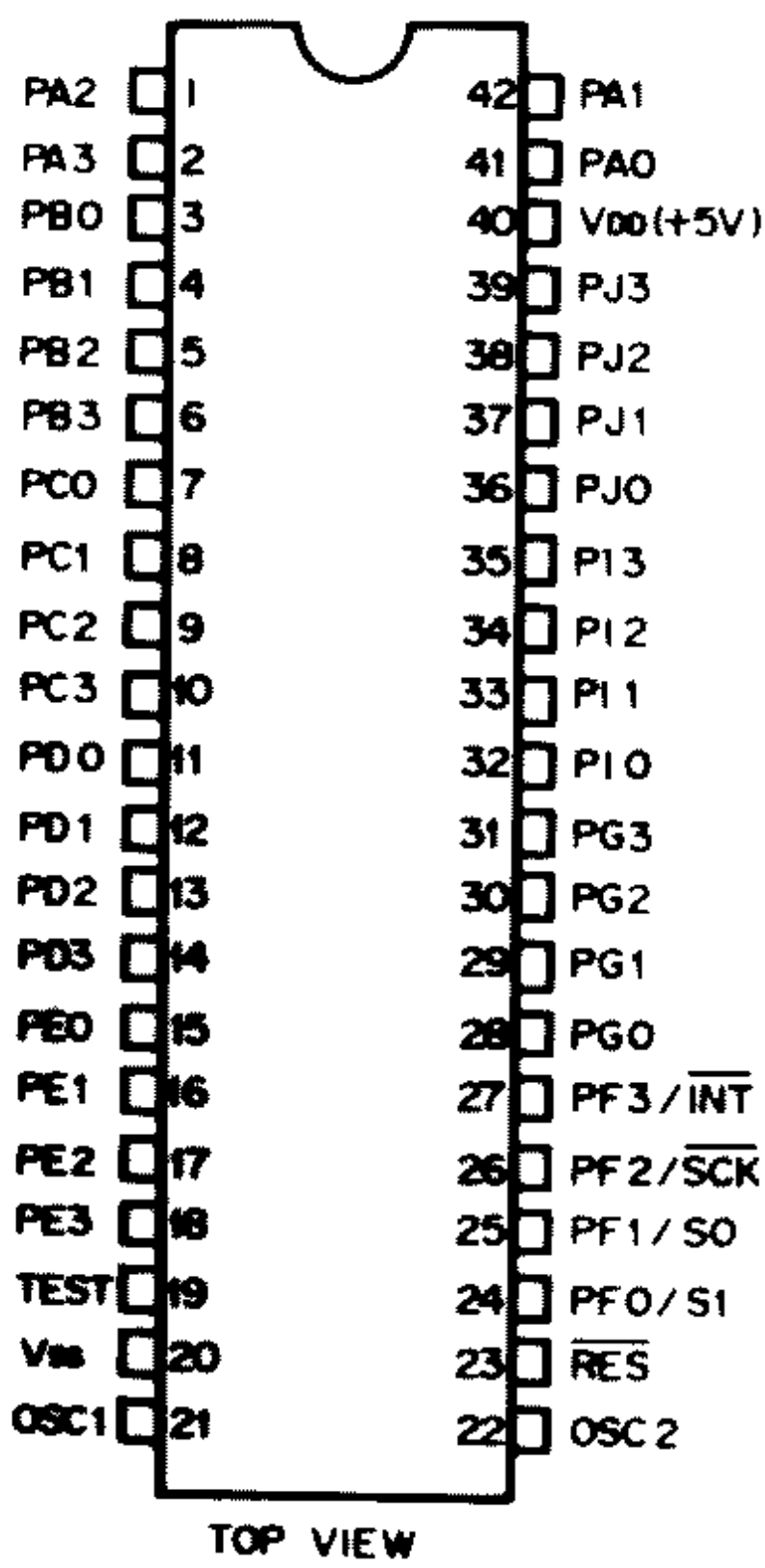
## IC BLOCK

### VC101 (Frequency Display)

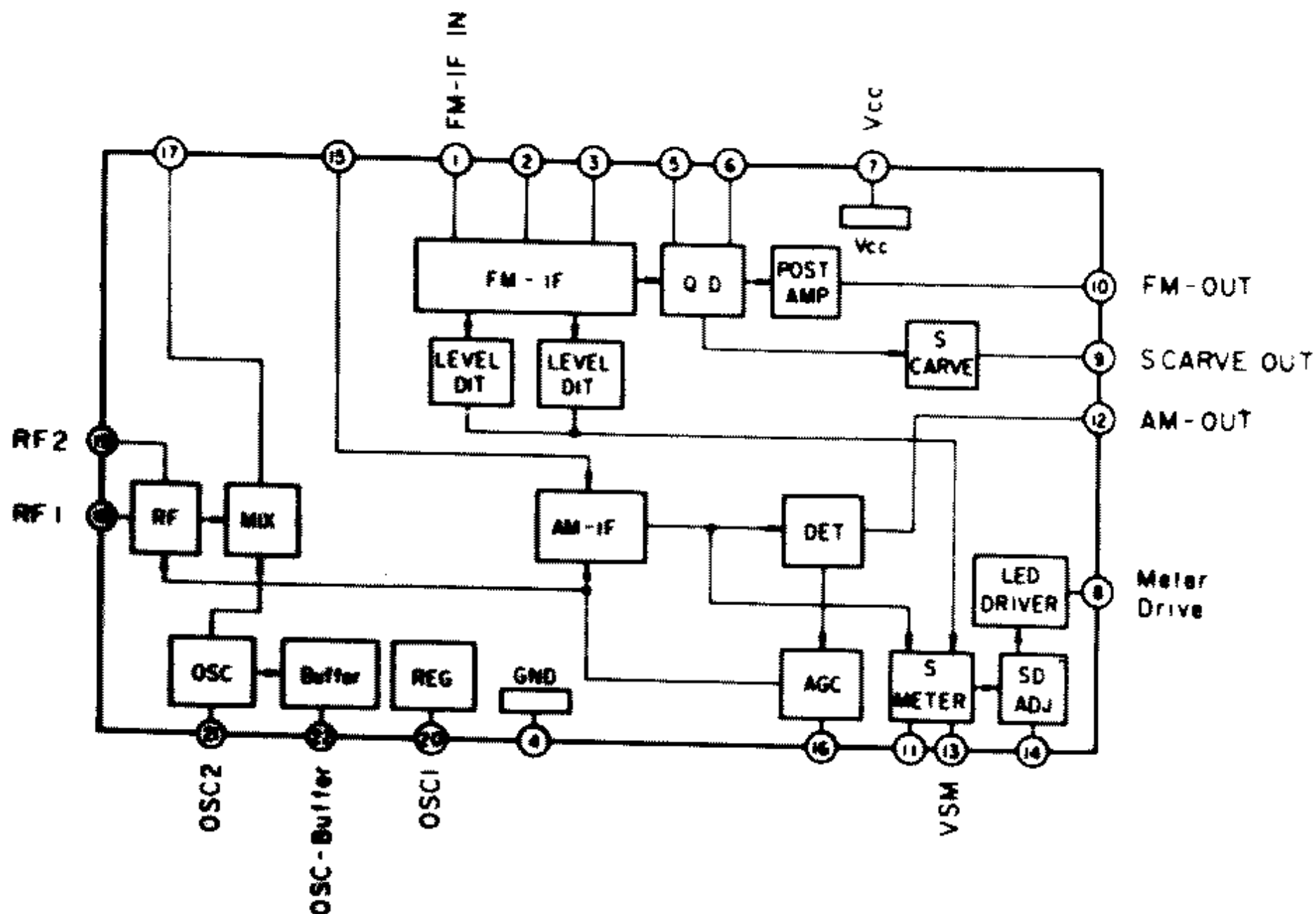


Pin No.	Function	Pin No.	Function
1	segment "g" Anode	13	"FM" Anode
2	segment "f" Anode	14	"ST" Anode
3	segment "e" Anode	15	"ST" Cathod
4	segment "d" Anode	16	"AM" "FM" Cathode "kHz" "MHz"
5	segment "c" Anode		
6	segment "b" Anode	17	decimal point Cathode
7	segment "a" Anode	18	"MEMO" Cathode
8	"MEMO" Anode	19	digit "5" Cathod
9	decimal point Anode	20	digit "4" Cathod
10	"kHz" Anode	21	digit "3" Cathod
11	"AM" Anode	22	digit "2" Cathod
12	"MHz" Anode	23	digit "1" Cathod

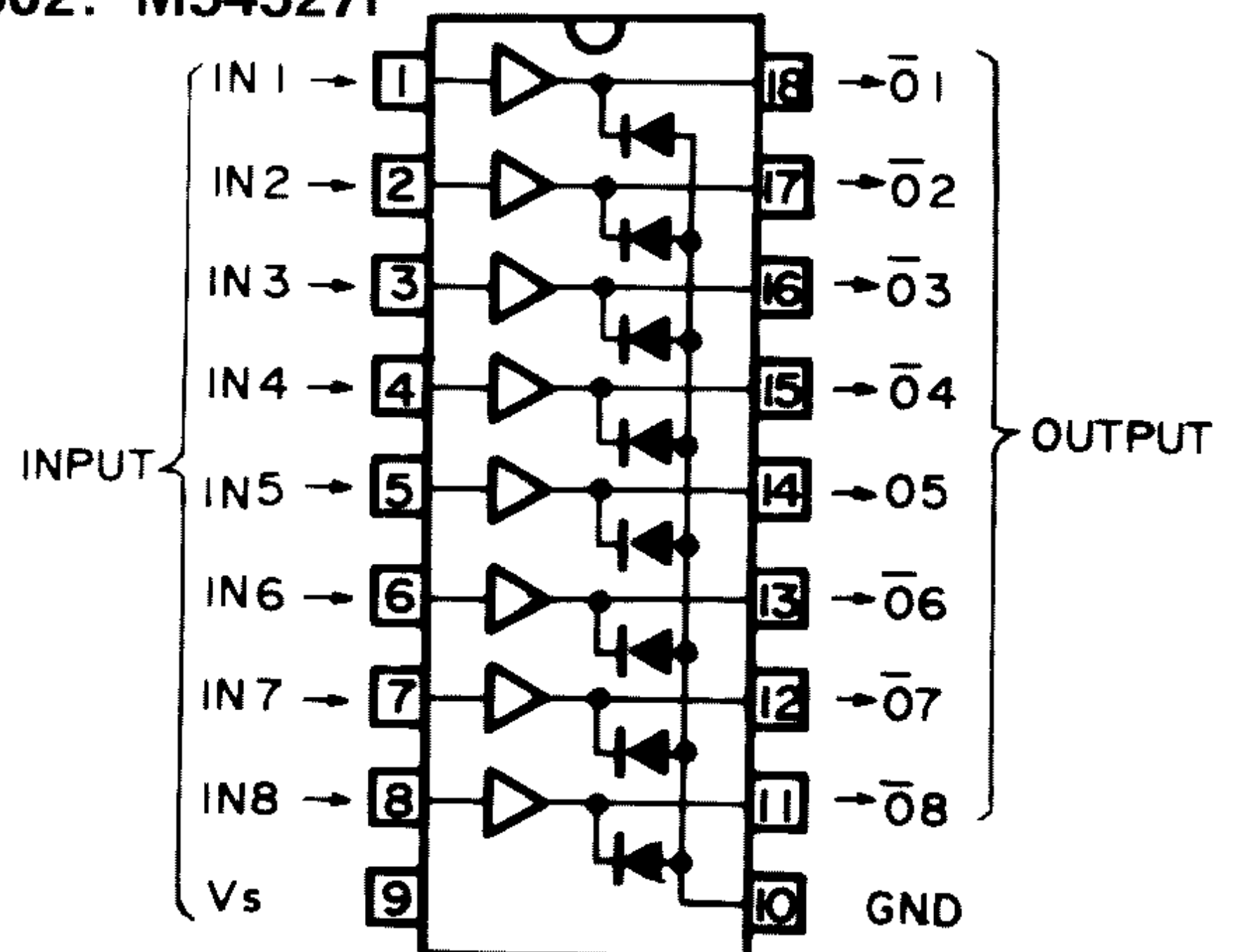
### IC104: LC6522C



### IC101: LA1266



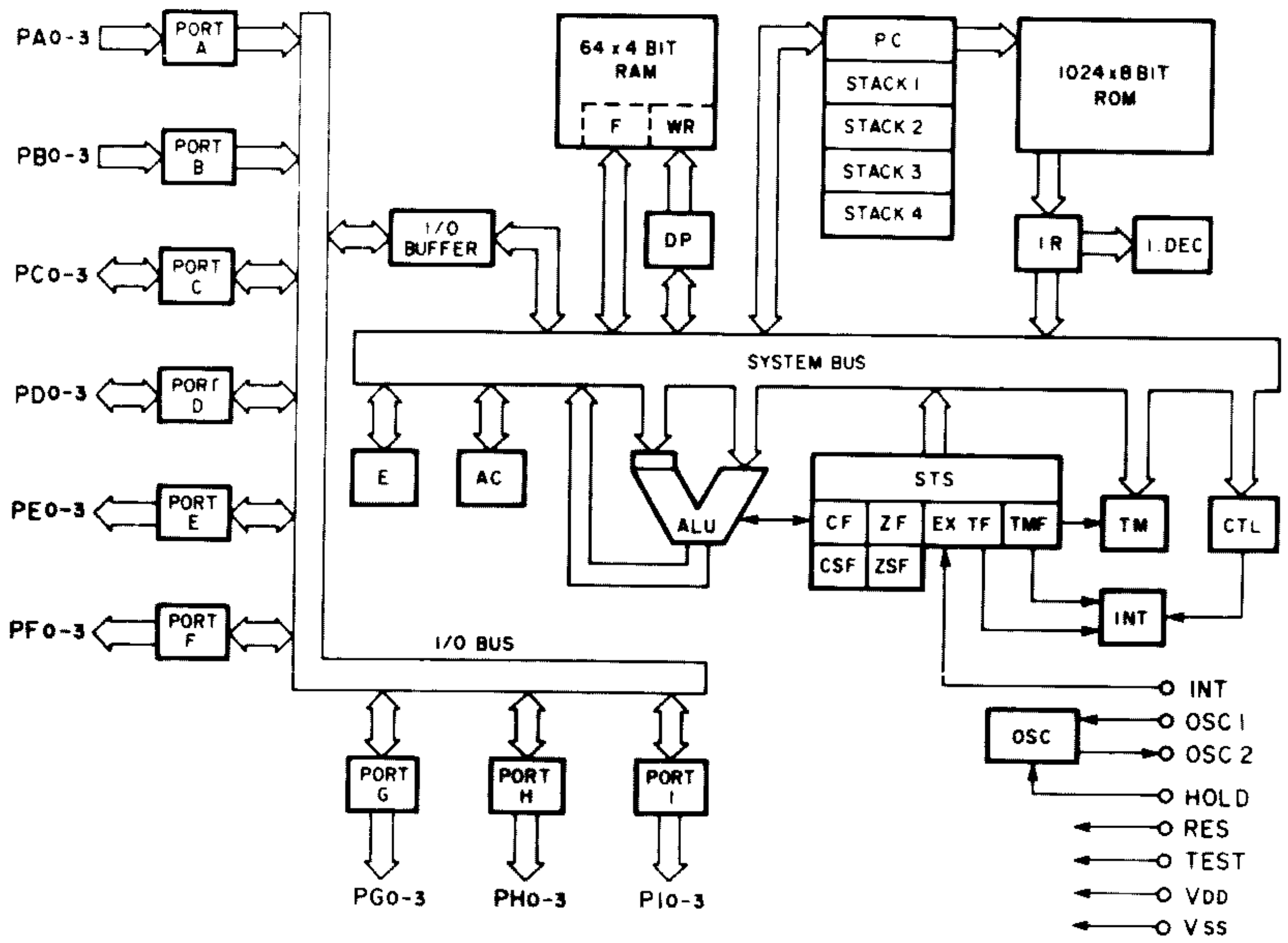
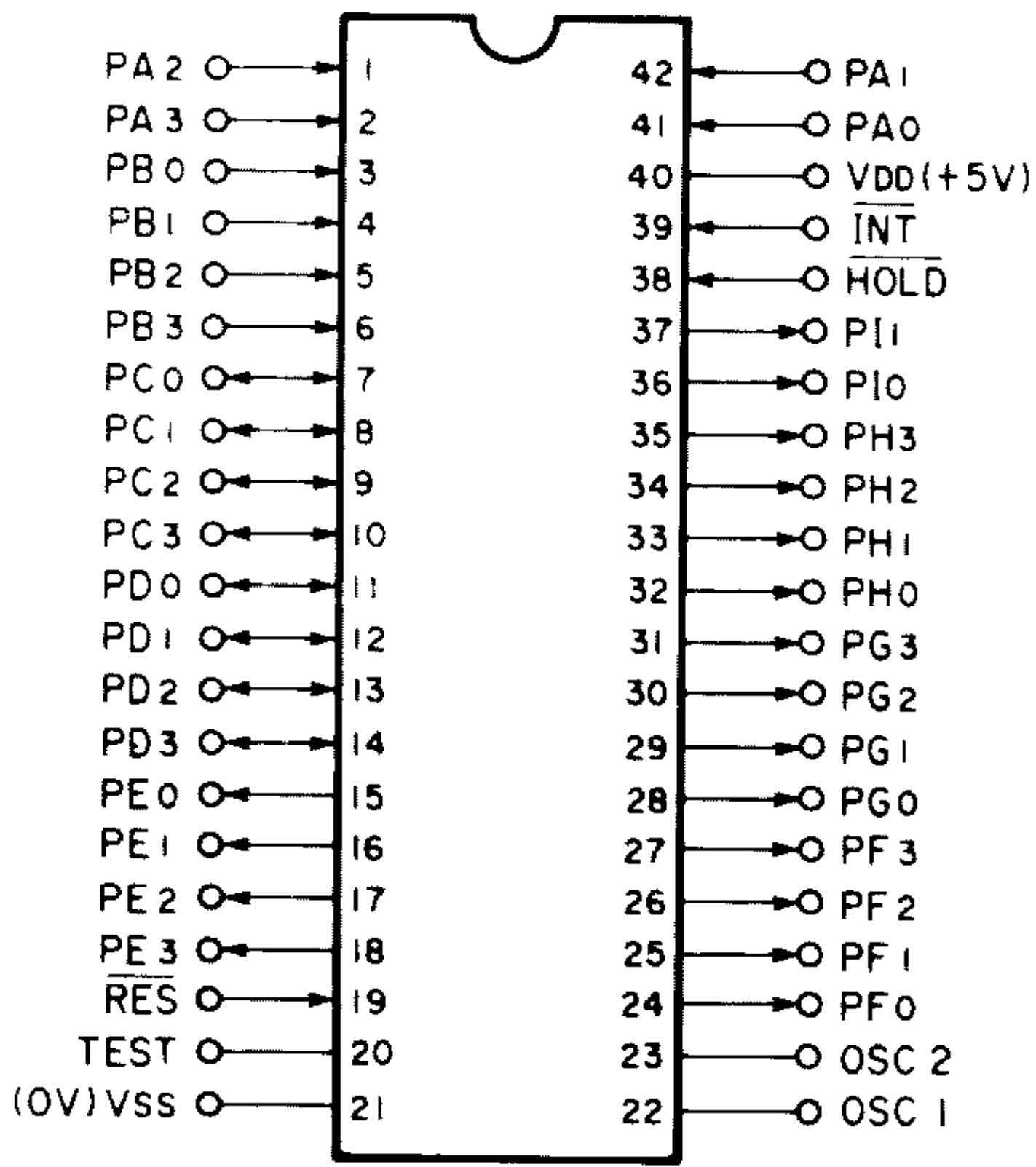
### IC502: M54527P



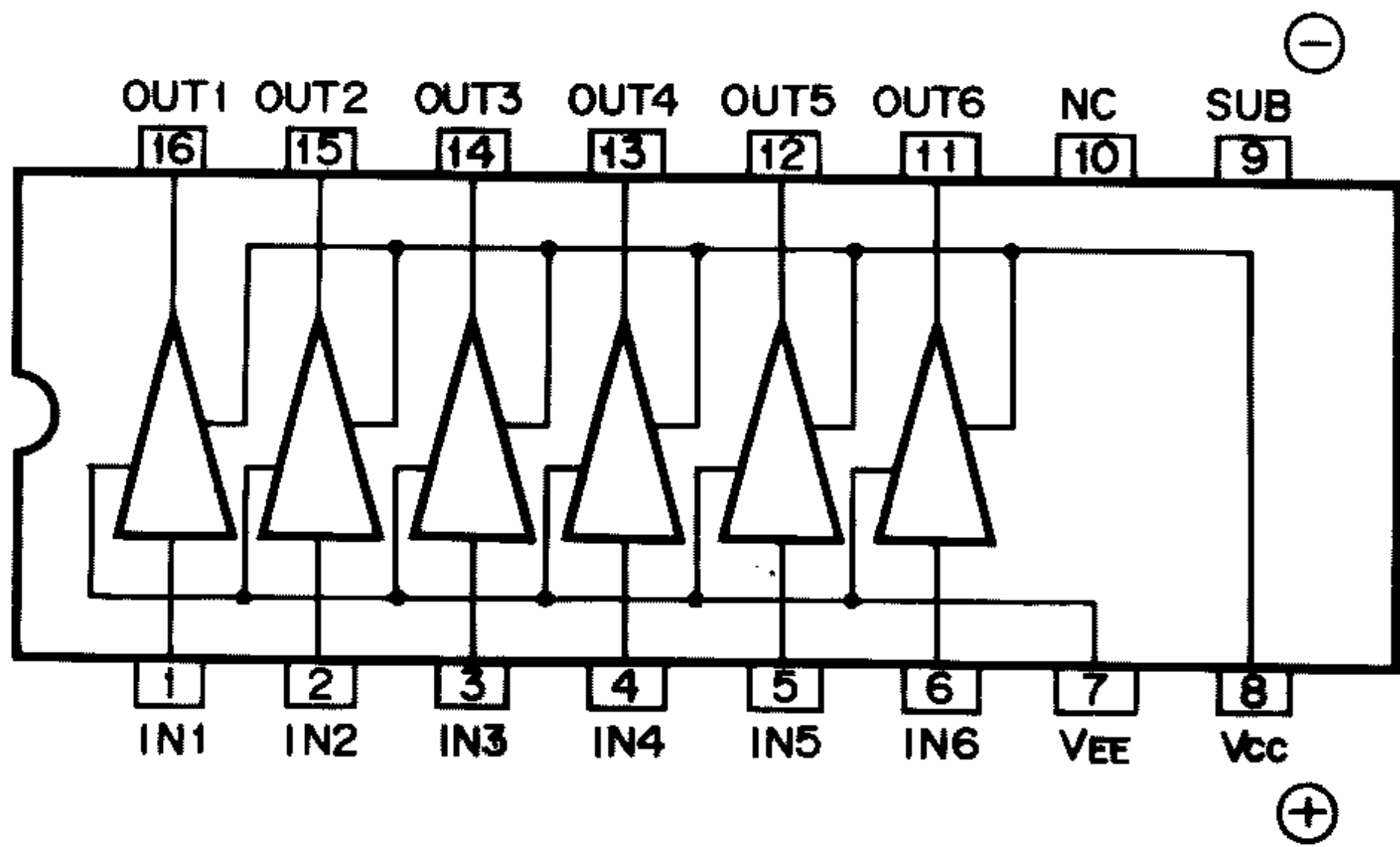


■ IC BLOCK

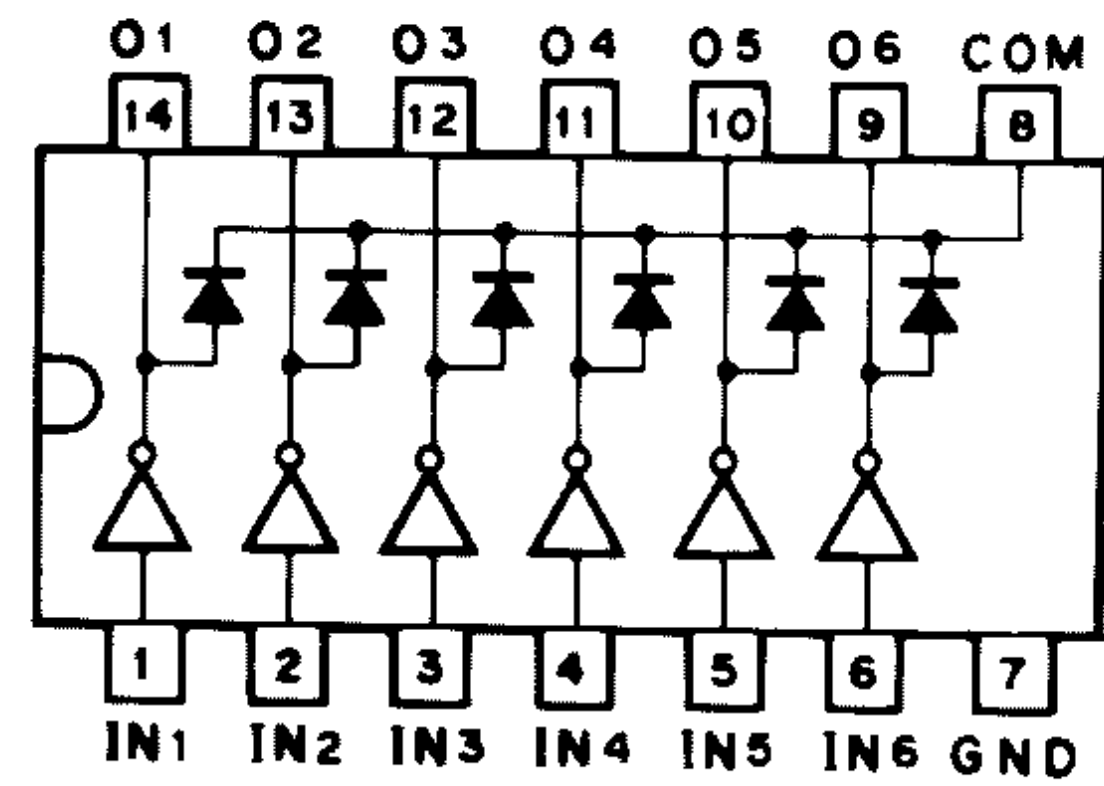
● IC208: LC6505C-3203



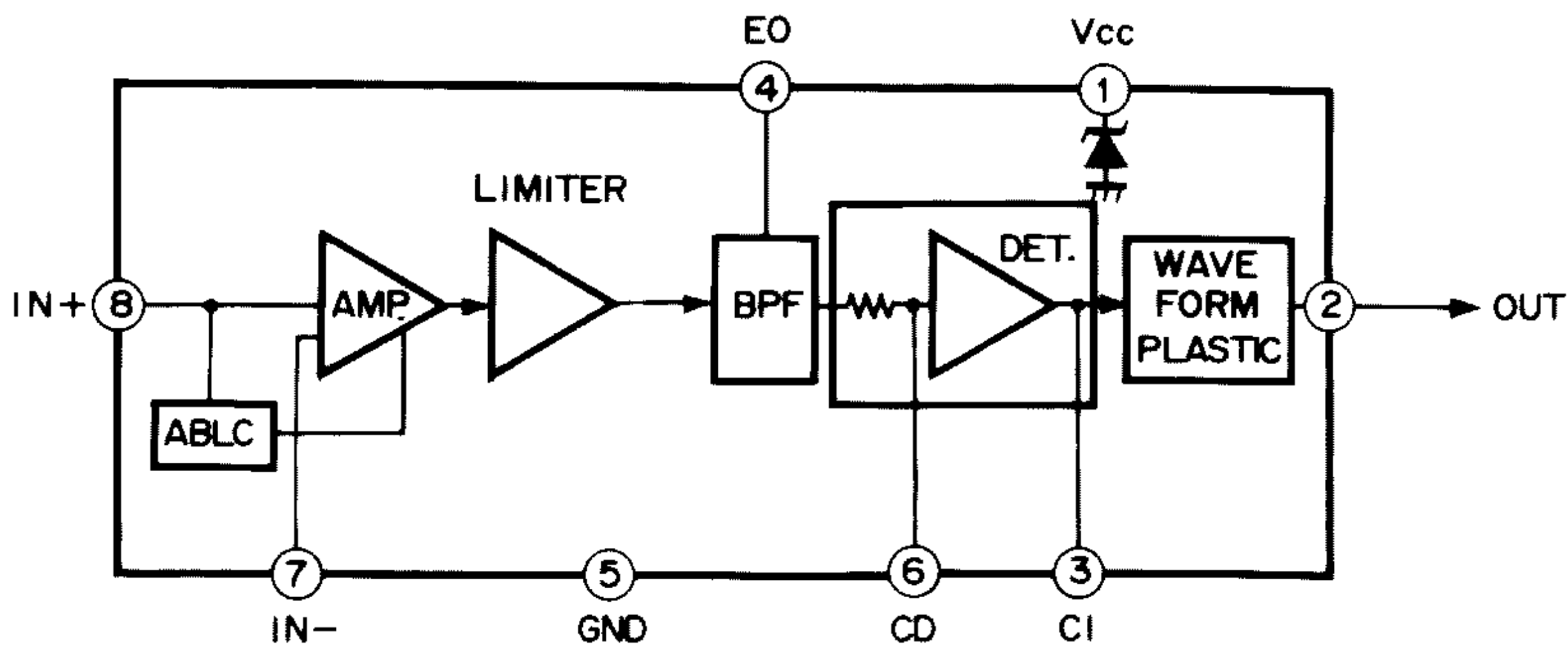
● IC206: LB1294



● IC501: M54562P

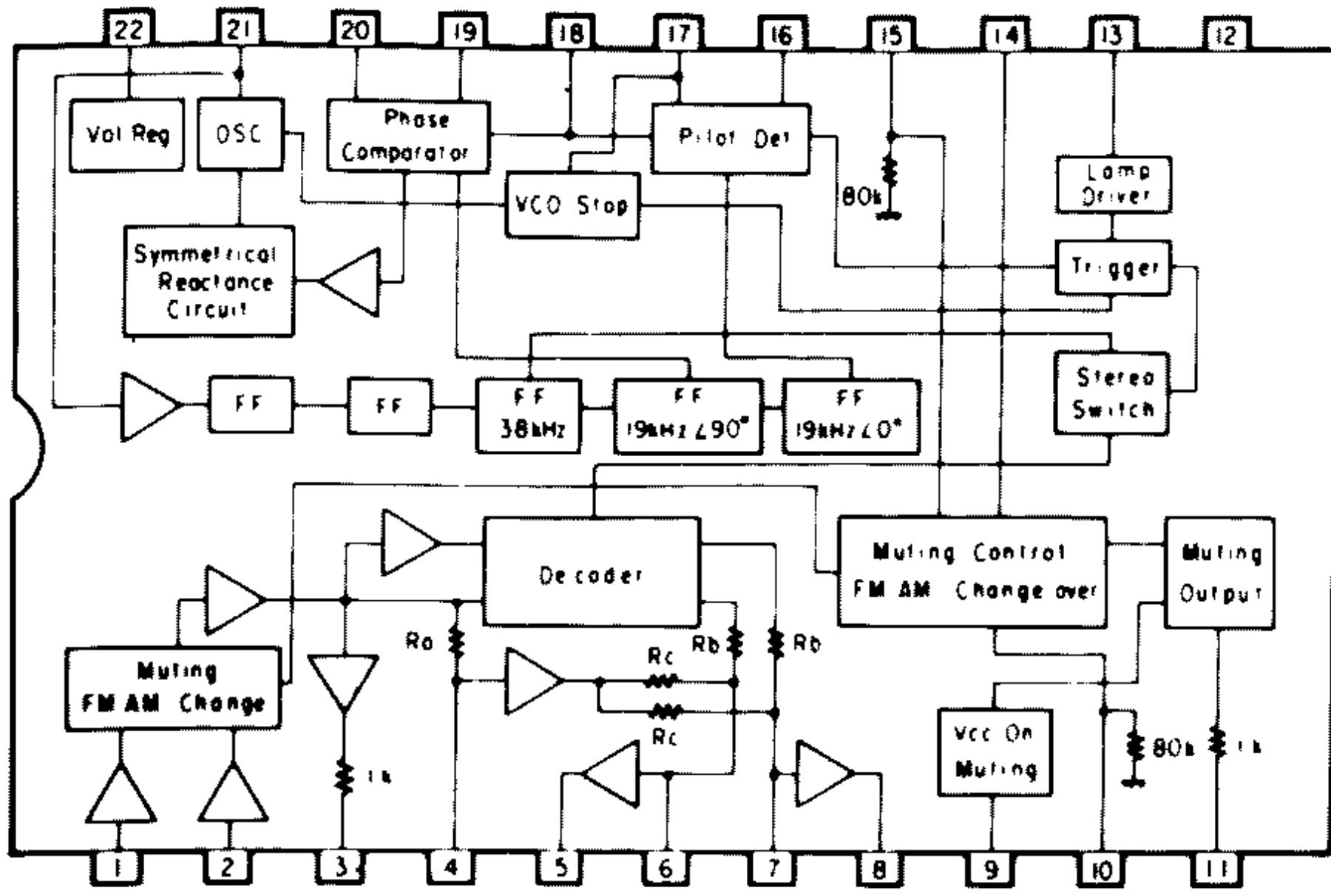


● IC207: μPC1490HA



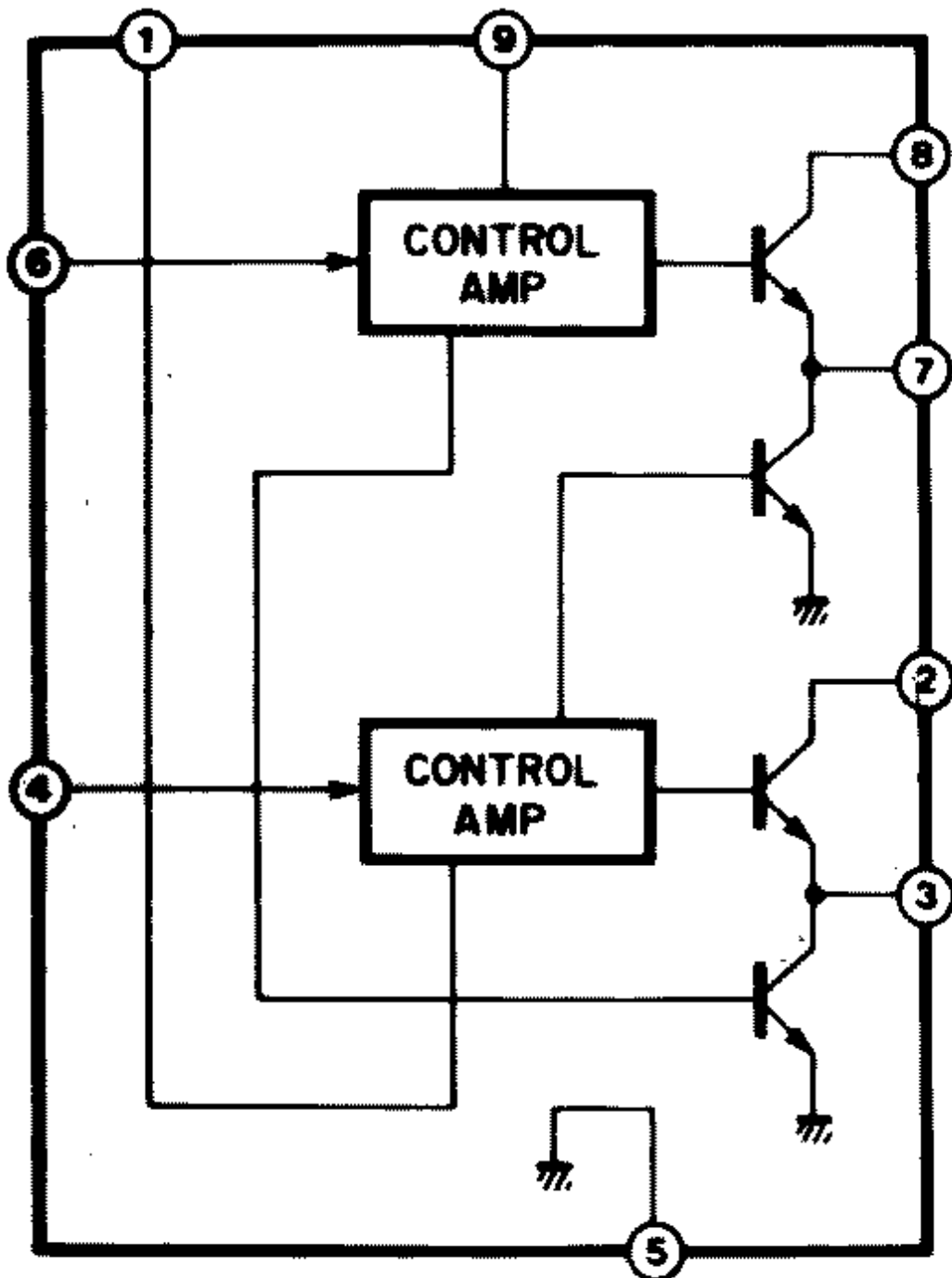
■ IC BLOCK

● IC102: LA3401

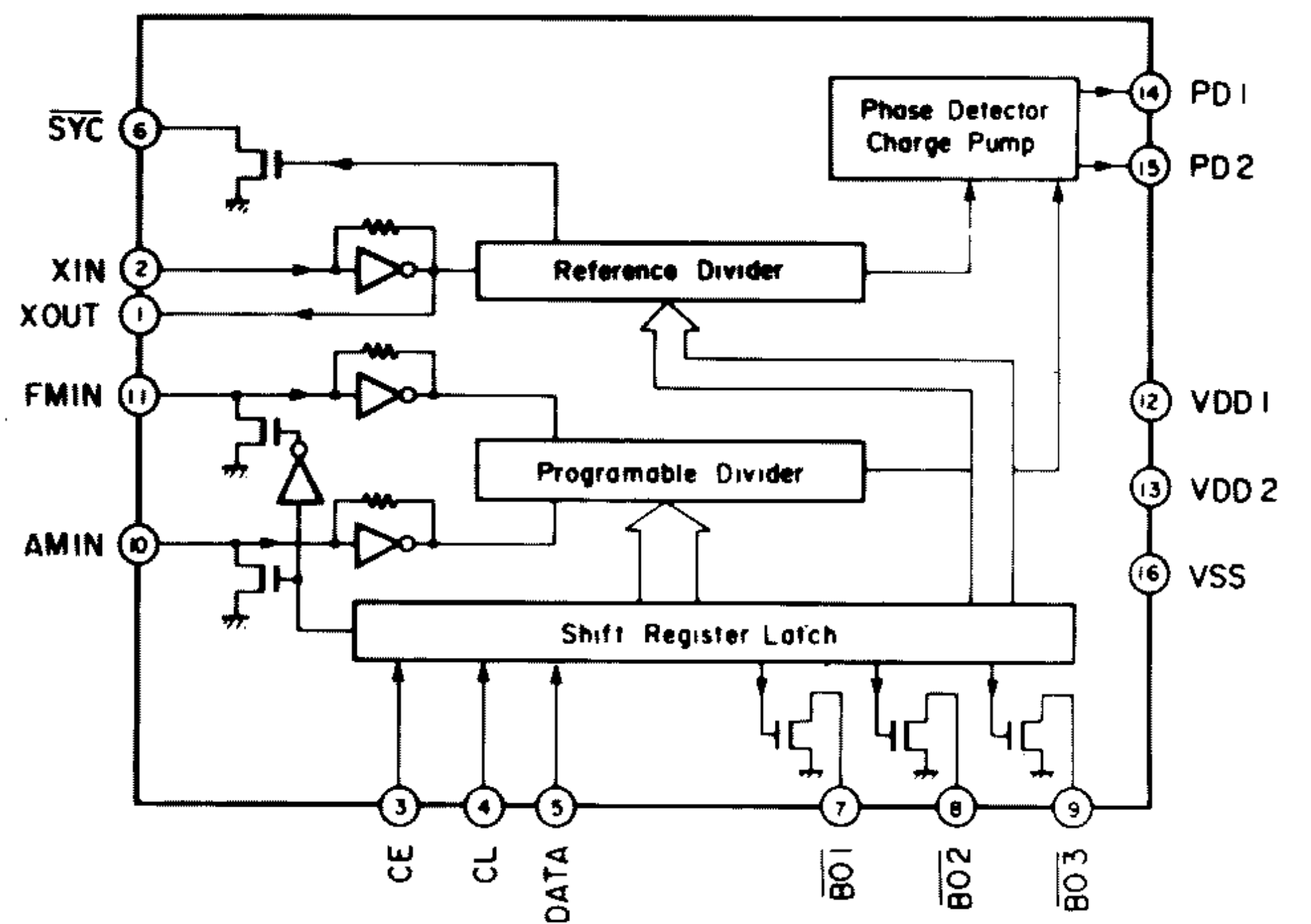


Pin No.	Function
1	Input (AM)
2	Input (FM)
3	Composite Amp Output
4	Separation Adj
5	Post Amp Output
6	Post Amp Input
7	Post Amp Input
8	Post Amp Output
9	Muting ON (Vcc)
10	AM/FM Select
11	Muting Output
12	GND
13	Stereo Indicator
14	Mute Select
15	Muting
16	Pilot Detector Filter
17	Pilot Detector Filter, VCO Stop
18	PLL Input
19	Loop Filter
20	Loop Filter
21	OSC
22	Vcc

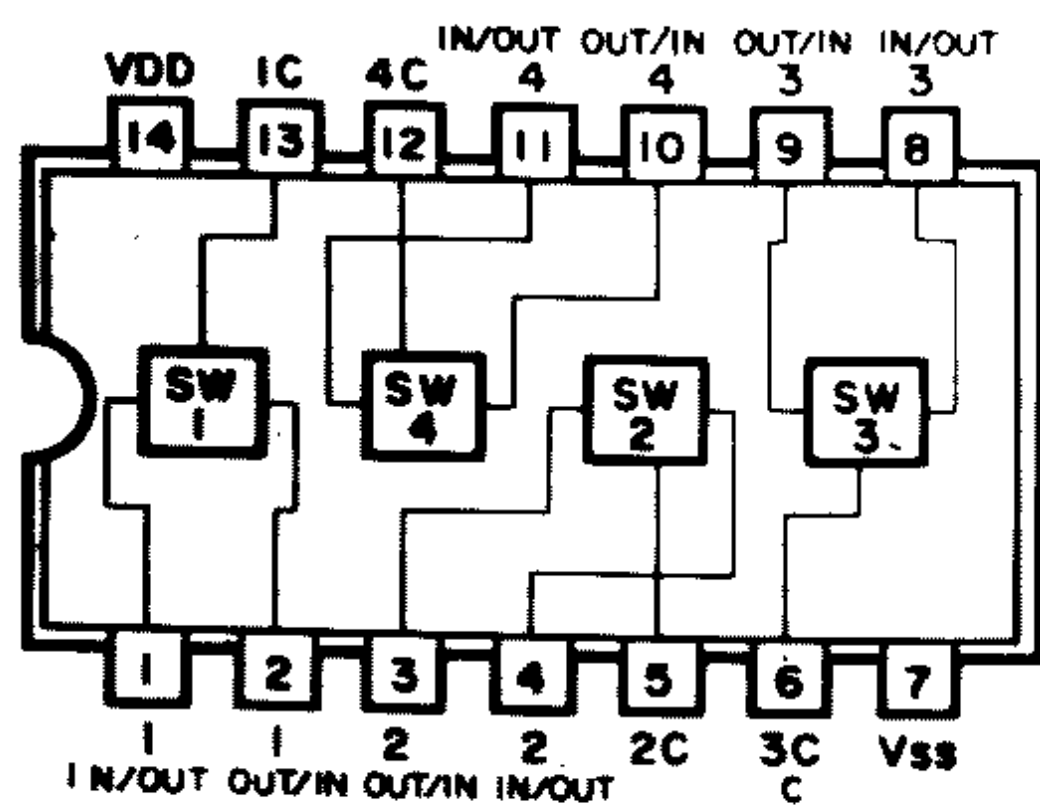
● IC205: M54542



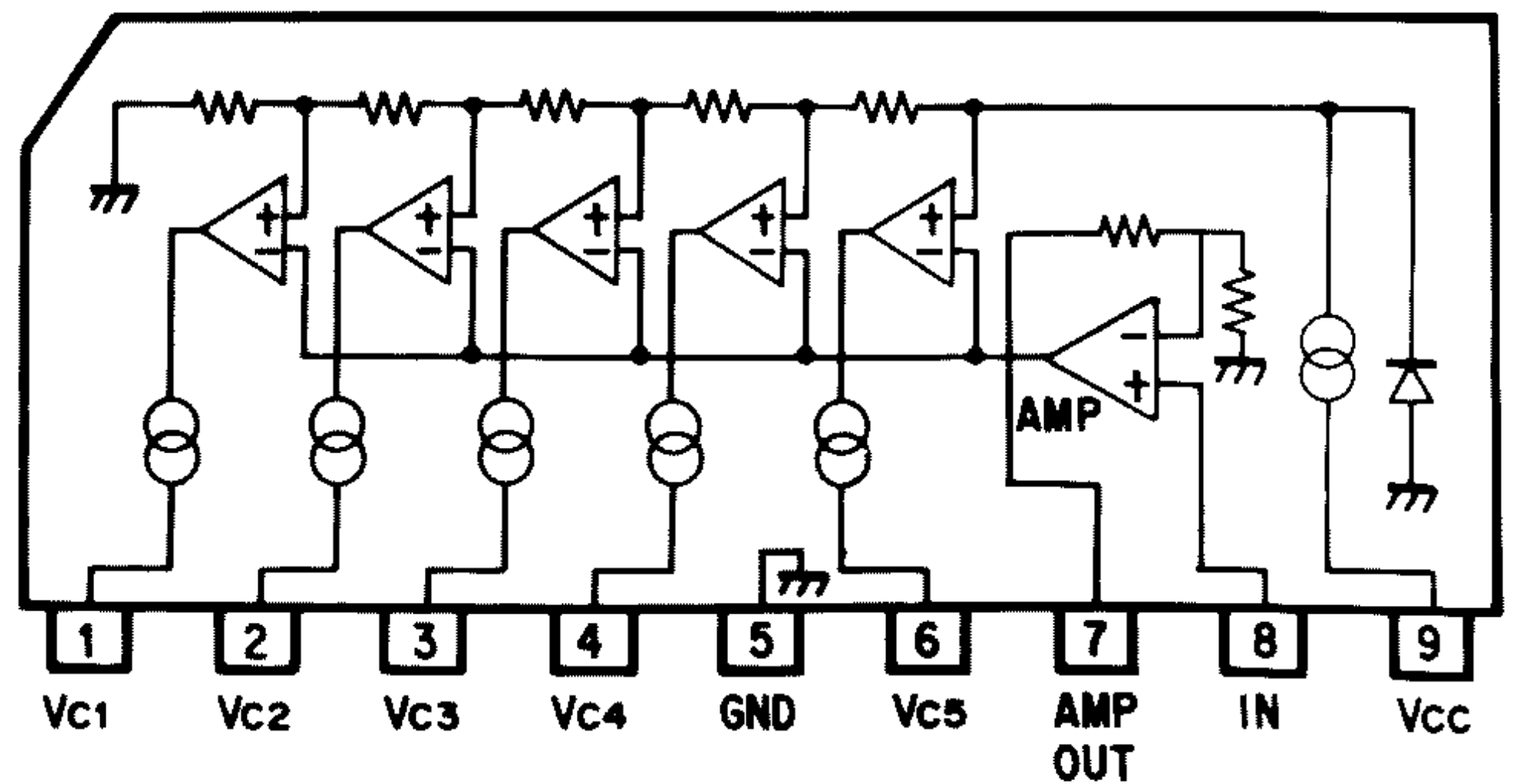
● IC103: LM7000N



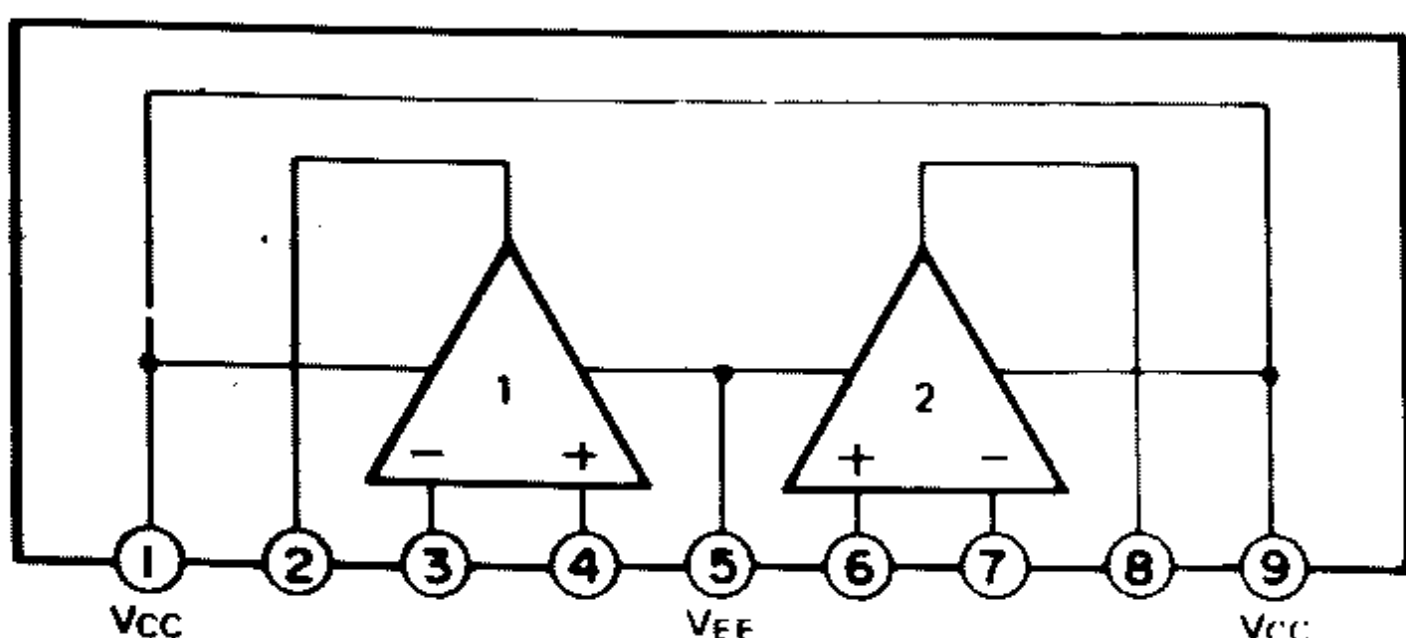
● IC202~204: LC4966



● IC503: LB1413



● IC201: AN6557






# PARTS LIST

## ■ ELECTRICAL PARTS

### ■ WARNING

- Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.
- Carbon resistors 1/6 W are not included in the ELECTRICAL PARTS list. For the parts No. of the carbon resistor, refer to P. 32.

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	NA 09:30:30	Main Circuit Board	メ イ ン シ ー ト			R	
	NA 09:30:40	"	"			U,C	
	NA 09:30:50	"	"			A,B	
	NA 09:30:60	"	"			G	
	VA 76:12:00	Ceramic Cap.	セ ラ コ ン	C143,144			
	Fi 41:41:00	"	"	C421	Inter-changeable		
	Fi 51:41:00	"	"	"			
	FG 40:03:00	"	"	C243,244,251,252			
	FG 41:11:20	"	"	C267,268			
	FG 41:21:00	"	"	C142,269,270			
	FG 41:21:00	"	"	C110		R,U,A,C,B	
	FG 41:21:00	"	"	C213,214		G	
	FG 41:22:20	"	"	C233,234,287			
	FG 41:22:20	"	"	C425,426,429,430		G	
	FG 41:23:30	"	"	C278,283			
	FG 41:22:20	"	"	C217,218		R,U,A,C,B	
	FG 21:23:30	"	"	"		G	
	FG 21:23:30	"	"	C431,432		G	
	FG 21:23:30	"	"	C201~212		G	
	FG 41:24:70	"	"	C122,288			
	FG 41:26:80	"	"	C227,228,237,238 273,274			
	FG 41:31:00	"	"	C112,139,140			
	FG 44:41:00	"	"	C102-104,106,107,116,118 147,150,275,290,401,402			
	FG 44:42:20	"	"	C105			
	FG 44:41:00	"	"	C433		G	
	FG 44:44:00	"	"	C119,120			
	FA 15:31:00	Mylar Cap.	マ イ ラ ー コ ン	C135,136		G	
	FA 15:33:90	"	"	C137,138		G	
	FA 15:31:50	"	"	"		R,U,A,C,B	
	FA 15:32:20	"	"	C435~438		G	
	FA 15:32:70	"	"	C255,256			
	FA 15:32:70	"	"	C133,134		G	
	FA 15:39:10	"	"	C221,222			
	FA 15:41:80	"	"	C247,248,257,258			
	FA 15:42:20	"	"	C416~419		G	
	FA 15:42:20	"	"	C229,230			
	FA 15:43:30	"	"	C223,224,271,272			
	FA 15:48:20	"	"	C231,232,249,250,407			
	FA 15:51:00	"	"	C145			
	VC 61:37:00	Electrolytic Cap.	バ ッ ク ア ッ プ ケ ミ コ ン	C289	Inter-changeable		
	VB 17:01:00	"	"	"			
*	VC 23:96:00	"	ブ ロ ッ ク ケ ミ コ ン	C405,406			
	UK 16:61:00	"	B P ケ ミ コ ン	C281,286			
	UK 16:63:30	"	"	C121,259~262			
	UL 46:61:00	"	ノ ー ロ イ ズ ケ ミ コ ン	C157			
	Ui 91:74:70	"	ケ ミ コ ン	C241,242,253,255,414			
	UJ 11:81:00	"	"	C219,220,415			
	Ui 33:71:00	"	"	C108,111,113,115,123,128,149 280,282,291,409,412,413			
	UJ 13:73:30	"	"	C101,141,146,148			
	UJ 14:74:70	"	"	C263,264,276,408 410,411			
	Ui 26:54:70	"	"	C124,285			

\*New Parts (新規部品)

RX-500/500U

RX-500/500U

RX-500/500U

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	UJ 16 61 00	Electrolytic Cap.	1 $\mu$ F 50V	ケ ミ コ ン	C125-127,131,132,215 216,235,236,265,266,420		
	UJ 16 62 00	//	2.2 $\mu$ F 50V	//	C109		
	UJ 46 63 30	//	3.3 $\mu$ F 50V	//	C117,284		
	FJ 16 64 70	//	4.7 $\mu$ F 50V	//	C114,225,226,239 240,245,246		
	UW 67 71 00	//	10 $\mu$ F 63V	//	C277		
	UJ 14 84 70	//	470 $\mu$ F 25V	//	C404		
	FJ 24 92 20	//	2200 $\mu$ F 25V	//	C403		
	UJ 16 82 00	//	220 $\mu$ F 50V	//	C279		
	FA 15 31 20	Mylar Cap.	1200pF 50V	マ イ ラ ー コ ン	C129,130		R,C,U
	UT 45 27 50	Polypropylene Film Cap.	750pF 100V	ポ リ プ ロ コ ン	//		A,B
	UT 45 23 90	//	390pF 100V	//	//		G
	GD 90 06 80	Coil	0.74 $\mu$ H	空 芯 コ イ ル	L401,402		
	GE 10 04 70	IFT Coil	AM	A M I F T コ イ ル	T102		
*	VC 21 86 00	Discri Coil	FM, QU-7W	F M 検 波 コ イ ル	T101		
	GE 20 05 30	Anti-Birdie Filter	114kHz	ア ン チ バ ー デ ィ ー フ ィ ル タ ー	T103		G
	GE 90 18 50	Inductor	39mH	固 定 イ ン ダ ク タ ー	L103,104		G
*	VC 36 20 00	Coil	1mH	固 定 コ イ ル	L101,102		
*	VD 01 16 00	Inductor	4.7mH	固 定 イ ン ダ ク タ ー	L105,106		
	VC 21 90 00	AM Ceramic Filter	SFZ450JL	A M セ ラ ミ ッ ク フ ィ ル タ ー	CF103		
	GG 00 05 60	Ceramic Filter	SFE10.7MS3GHY-A	セ ラ ミ ッ ク フ ィ ル タ ー	CF101,102		
	GG 00 07 00	Ceramic Resanator	FCR400K	セ ラ ミ ッ ク 振 動 子	XL103		
	GG 00 07 50	//	CSB456F11	//	XL101		
	HJ 35 41 00	Carbon Film Resistor	10 $\Omega$ 1/4W	カ ー ボ ン 抵 抗	R305,306		
	HJ 35 52 70	//	270 $\Omega$ 1/4W	//	R237,238,403,404		
	HJ 35 54 70	//	470 $\Omega$ 1/4W	//	R245,246		
	HJ 35 54 70	//	470 $\Omega$ 1/4W	//	R235,236		R,U,A,C,B
	HJ 35 58 20	//	820 $\Omega$ 1/4W	//	//		G
	HJ 35 56 80	//	680 $\Omega$ 1/4W	//	R271,272		
	HJ 35 62 20	//	2.2k $\Omega$ 1/4W	//	R253,254,273~276		
	HJ 35 62 70	//	2.7k $\Omega$ 1/4W	//	R247,248,269,270		
	HJ 35 63 90	//	3.9k $\Omega$ 1/4W	//	R261,262,285,286		
	HJ 35 64 70	//	4.7k $\Omega$ 1/4W	//	R283,284		
	HJ 35 68 20	//	8.2k $\Omega$ 1/4W	//	R231,232		
	HJ 35 71 80	//	18k $\Omega$ 1/4W	//	R233,234,259,260		
	HJ 35 72 20	//	22k $\Omega$ 1/4W	//	R250		
	HJ 35 72 70	//	27k $\Omega$ 1/4W	//	R229,230		
	HJ 35 73 90	//	39k $\Omega$ 1/4W	//	R256~258		
	HJ 35 75 60	//	56k $\Omega$ 1/4W	//	R281,282		
	HJ 35 81 00	//	100k $\Omega$ 1/4W	//	R302		
	HJ 35 82 20	//	220k $\Omega$ 1/4W	//	R267,268,411		
	HJ 35 82 20	//	220k $\Omega$ 1/4W	//	R102		G
	HG 30 92 20	//	2.2M $\Omega$ 1/2W	//	R429		U,C
	HL 31 52 20	Metal Oxide Film Resistor	220 $\Omega$ 1W	酸 金 抵 抗	R425,426		
	HL 32 22 20	//	0.22 $\Omega$ 2W	//	R293~296		
	HV 45 31 00	Flame Proof Carbon Resistor	1 $\Omega$ 1/4W	不 燃 化 カ ー ボ ン 抵 抗	R415,416		
	HV 45 32 20	//	2.2 $\Omega$ 1/4W	//	R427,428		G
	HV 45 34 70	//	4.7 $\Omega$ 1/4W	//	R303,304,312		
	HV 45 41 00	//	10 $\Omega$ 1/4W	//	R279,280,307,310		

\*New Parts (新規部品)



RX-500/500U

Ref. No.	Part No.	Description	部品名		Remarks	Common Model	Markets	ランク
	HV 45 53 30	Flame Proof Carbon Resistor	330Ω	1/4W	不燃化カーボン抵抗	R291,292		
	HV 45 58 20	"	820Ω	1/4W	"	R289,290		
	HV 45 62 20	"	2.2kΩ	1/4W	"	R277,278		
	VA 78 76 00	Pre-set Potentiometer	B1kΩ		半固定抵抗	VR201,202		
	VB 14 07 00	"	B1kΩ		"	"	inter-changeable	
	VB 24 42 00	"	B47kΩ		"	VR101,102		
	HS 41 25 30	Potentiometer	80k×2, 100k×2, 250k×1, 300k×2		4連可変抵抗器	VR203		
*	VC 59 21 00	Potentiometer with Motor	100k×2		モーター付可変抵抗器	VR204		
	iF 00 84 80	Diode	1SR35-100AT-93X		ダイオード	D401~404		
	iF 00 34 50	"	1SS133		"	D101-103,205,208 405,410,411		
	iF 00 14 00	"	1SS82		"	D201,202	inter-changeable	
	VA 99 39 00	"	MA182		"	"	inter-changeable	
	iF 00 45 90	Photo Diode	TSP703		フォトダイオード	D204		
	iF 00 47 10	"	PH302		"	"	inter-changeable	
	iF 00 78 50	"	PN313		"	"	inter-changeable	
*	VC 63 79 00	"	PD49Pi		"	"		
	iF 00 64 70	Zener Diode	MTZ7.5B		ツェナーダイオード	D406		
	iF 00 88 50	"	MTZ12A		"	D203,407,408		
	iF 01 72 00	"	MTZ5.6C		"	D409		
	iH 00 11 60	Diode, Bridge	4D4841		ダイオードブリッジ	D412		
	IA 10 15 20	Transistor	2SA1015(Y)		トランジスタ	Q102,209,210,404,408		
*	VC 21 87 00	"	2SA1317(S)		"	Q106,203,204,223 224,226,404-407	inter-changeable	
	IA 13 10 00	"	2SA1310(R,S,T)		"	"	inter-changeable	
	IA 11 45 00	"	2SA1145(O,Y)		"	Q211,212		
*	VC 40 79 00	"	2SD1913		"	Q401,402		
	VB 43 33 00	"	2SC1809(M,N,P)		"	Q101		
*	VD 01 15 00	"	2SC1846(Q,R,S)		"	Q409		
	iC 22 40 00	"	2SC2240(GR,BL)		"	Q205-208,213,214		
*	VC 21 89 00	"	2SC3330(S)		"	Q103-105,107 225,418	inter-changeable	
	iC 33 12 00	"	2SC3312(R,S,T)		"	"	inter-changeable	
	iC 28 78 20	"	2SC2878(A,B)		"	Q201,202		
	iB 05 60 10	Pair Transistor	2SB580(E,F)		ペアトランジスタ	Q217,218		
	iD 04 38 10	"	2SD438(E,F)		"	Q215,216		
	iG 08 52 00	IC	AN6557		I C	IC201		
	iG 14 93 00	"	LC4966		"	IC202-204		
*	XB 76 00 01	"	LA1266		"	IC101		
*	XB 81 80 01	"	LM7000N		"	IC103		
	iG 15 81 00	"	LA3401		"	IC102		
*	XC 09 60 01	"	μPC1490HA		"	IC207		
	iG 05 49 00	"	M54542		"	IC205		
	XA 54 90 01	"	LB1294		"	IC206		
*	XB 91 70 01	"	LC8505C-3203		"	IC208		
*	XB 91 90 01	"	LC6522C-3214		"	IC104		
	KA 80 32 10	Push Switch	1P	SDL	プッシュスイッチ	SW104		
	KA 80 37 90	"	2×2	SUF	"	SW102		
	KA 80 51 20	"	2-2S	SUN	"	SW105		

\* New Parts (新規部品)

Ref. No.	Part No.	Description	部品名		Remarks	Common Model	Markets	ランク
	KA 90:10:70	Remote Switch	4-6	NS	リモートスイッチ	SW101		
	VA 94:53:00	Slide Switch			スライドスイッチ	SW107	R	
	VA 96:18:00	Voltage Selector			電圧切換器	SW106	R	
	KC 00:19:40	Relay	DH24D2-OTM		リレ -	RY101		
	KC 00:20:00	//	JR2A-DC24V		"	//		
*	VC 27:86:00	//	G5R-2232P DC24V 2A		"	//		
	LB 30:17:20	Head Phone Jack			ヘッドホンジャック	JK101		
	LB 20:22:90	Pin Jack	2P		ピンジャック	PJ101		
	LB 40:10:30	//	4P		"	PJ102~104		
*	VC 31:68:00	Coil Pack	AM		電子同調コイルパック	U101		
*	VC 21:93:00	FM Front-end Pack	FG1U117A		フロントエンドパック	PK101	R,U,A,C,B	
*	VC 21:94:00	//	FG3E114A		"	//	G	
*	VC 21:91:00	Quartz Crystal	7.2MHz		水晶振動子	XL102		
	BA 09:22:70	Heat Sink			放熱板			
	LA 00:58:00	Antenna Terminal			アンテナ端子台		G	
	VA 84:59:00	//	4P		"		R,U,A,C,B	
*	VB 84:59:00	SP Terminal			SPターミナル		R,U,A,C,B	
*	VC 17:06:00	//			"		G	
	LB 40:14:50	AC Outlet	M7031-C		ACアウトレット		R	
	LB 40:14:60	//			"		U,C	
	LB 20:18:80	Fuse Holder Pin			ヒューズホルダーピン			
*	VD 00:49:00	Base Pin	6P	i-Type	ベースピン			
*	VD 00:51:00	//	8P	i-Type	"			
*	VD 00:53:00	//	10P	i-Type	"			
*	VD 39:56:00	//	10P	i-Type	"			
	BB 06:95:10	Ground Metal			ランド金具			
	BB 07:09:10	TR Pusher			TRプッシャー			
	CB 60:56:20	Plastic Revet			プラスチックリベット			
	EZ 00:16:30	Cup Tight Screw	3×10	FCRM3-BI	カップタイトネジ			
	<b>NA 09:30:20</b>	<b>Display Circuit Board</b>			表示器シート			
	UH 13:71:00	Electrolytic Cap.	10μF	16V	ケミコン	C501		
	iF 00:34:50	Diode	1SS133		ダイオード	D524~529		
	iF 00:87:30	LED	SLR-34URC3H3		L E D	D501~509,511 517~522		
	iF 00:87:40	//	SLR-34MC3H3		"	D510,512~516		
	iF 00:82:90	Frequency Display			周波数表示器	D523		
	iG 11:96:00	IC	M54562P		I C	IC501		

\*New Parts (新規部品)





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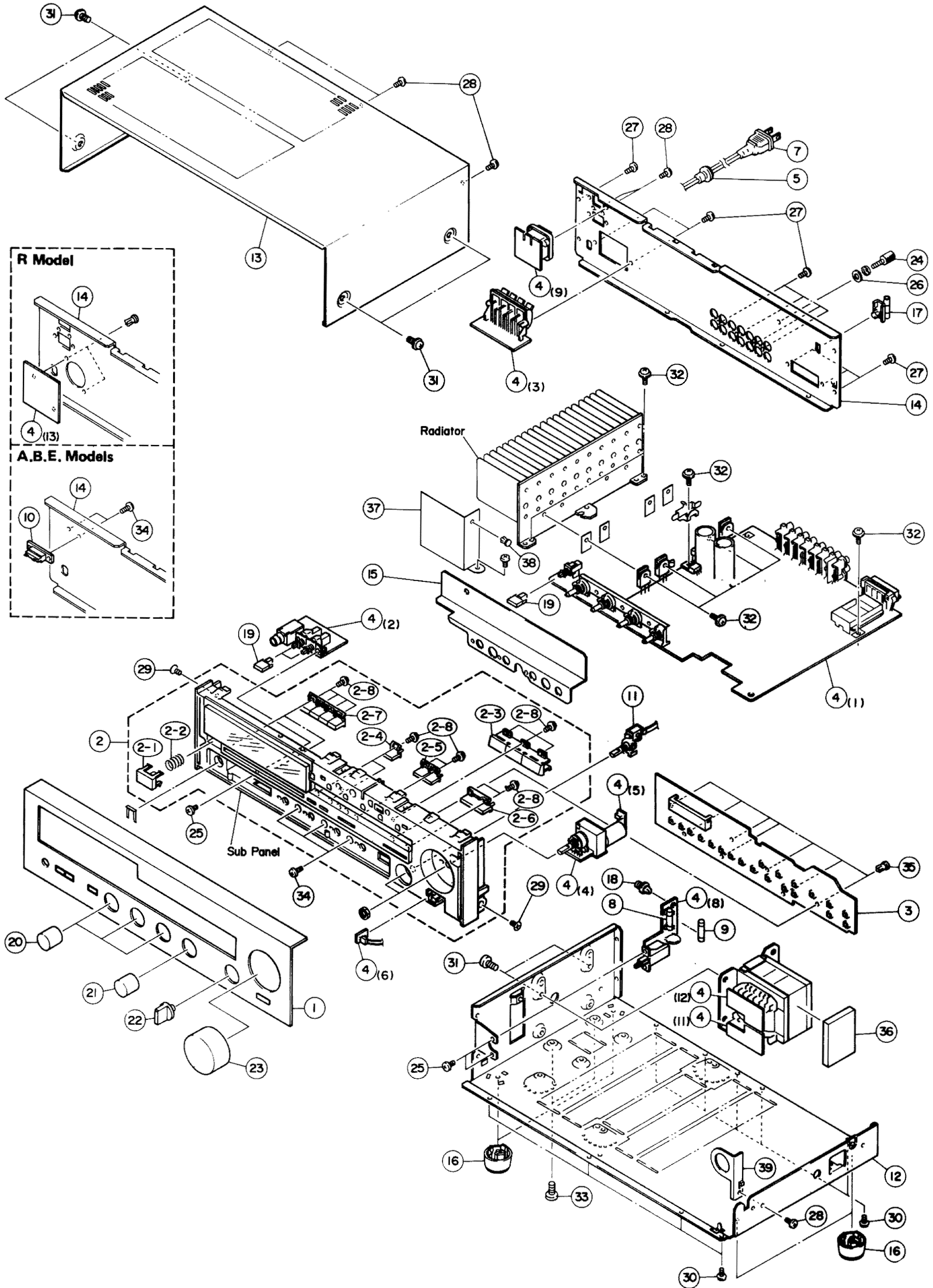
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RX-500/500U

# MECHANISM EXPLODED VIEW





MECHANISM PARTS

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
* 1	VC 58 23 00	Panel Unit	パネルユニット	Silver		R,A,G,B	
* //	VC 58 25 00	//	//	Silver		U,C	
* //	VC 58 26 00	//	//	Black		A,B,G,R	
* //	VC 58 28 00	//	//	Black		U,C	
* 2	VC 58 36 00	Sub Chasis Unit	サブシャーシユニット	Silver			
* //	VC 58 37 00	//	//	Black			
2-1	CB 63 51 20	Button	ボ タ ン	Silver	Power	A-520	
//	CB 63 51 30	//	//	Black	Power	A-520	
2-2	AA 61 78 80	Spring	バ ネ				
2-3	CB 64 01 20	Button, Push	ボ タ ン プ ッ シ ュ	Silver		R-7	
//	CB 64 01 30	//	//	Silver			
2-4	CB 63 99 20	//	//	Black		R-3	
//	CB 63 99 30	//	//	Silver			
2-5	CB 63 99 40	//	//	Black			
//	CB 63 99 50	//	//	Silver			
2-6	CB 63 99 60	Button, Seasaw	ボ タ ン シ ー ソ ー	Black			
//	CB 63 99 70	//	//	Silver			
2-7	CB 64 34 20	Button, Push	ボ タ ン プ ッ シ ュ	Black			
//	CB 64 01 50	//	//	Silver			
2-8	EX 60 02 00	Cup Screw	2×6 FCRM3-BI カップスクリュー	Black			
* 3	NA 09 30 20	Display Circuit Board	表 示 器 シ ー ト				
* 4	NA 09 30 30	Main Circuit Board	メ イ ン シ ー ト			R	
* //	NA 09 30 40	//	//			U,C	
* //	NA 09 30 50	//	//			A,B	
* //	NA 09 30 60	//	//			G	
5	CB 62 01 90	Cord Stopper	CM-22B コードストッパー			R,A,G,B	
//	CB 62 02 00	//	CM-22C			U,C	
* 6	XB 94 00 01	Power Transformer	電 源 ト ラ ン ス			R	
* //	XB 94 10 01	//	//			U	
* //	XB 94 20 01	//	//			A,B	
* //	XB 94 30 02	//	//			G	
* //	XB 94 40 01	//	//			C	
7	MG 00 16 30	Power Cord	6A 250V 2m 電 源 コ ー ド			R	
//	MG 00 22 20	//	10A 125V 1.98m			U,C	
//	MG 00 09 20	//	7.5A 250V 2.5m			A	
//	MG 00 23 10	//	7.5A 250V 2m		} Interchangeable	A	
//	MG 00 16 20	//	2.5A 250V 2m			G	
//	MG 00 23 20	//	2.5A 250V 2m		} Interchangeable	G	
//	MG 00 18 60	//	2.5A 250V 2m			B	
8	KB 00 03 80	Fuse	T4.0A 250V ヒ ュ ー ズ			R	
//	KB 00 07 40	//	T1.6A 250V			A,G,B	
//	KB 00 25 70	//	UL ST-4 4A 250V			U,C	
9	KB 00 03 50	//	T2.0A 250V			R	
10	LA 00 29 50	Relay Terminal	2P MA0092A 中 継 端 子 台			A,G,B	
11	KA 90 70 90	Remote Rotary Switch	ESA-33 リモートロータリースイッチ				
12	AA 62 55 00	Chassis	シ ャ ー シ		R-3		
13	AA 62 55 10	Top Cover	ト ッ プ カ バ ー	Silver	R-3		
//	AA 62 55 20	//	//	Black			

\* New Parts (新規部品)



Ref. No.	Part No.	Description	部品名	Remarks	Common Model	Markets	ランク
* 14	VC 40 40 00	Rear Panel	リヤパネル			R	
* //	VC 40 41 00	//	//			U,C	
* //	VC 40 42 00	//	//			G	
* //	VC 40 43 00	//	//			A,B	
15	AA 62 60 70	Shield Plate	シールドプレート				
16	CB 62 07 30	Leg	トランレグ		A-750		
17	CB 60 74 70	Holder, Antenna	アンテナホルダー		T-6a		
18	CB 09 80 00	Holder, Board	シートホルダー				
19	CB 63 42 40	Push Button	プッシュボタン	Silver SPEAKERS, MODE TONE BYPASS	A-520		
//	CB 63 42 30	//	//	Black //	//		
20	CB 63 82 30	Knob	ツマミ	Silver BASS, TREBLE BALANCE	//		
//	CB 63 82 40	//	//	Black //	//		
21	CB 63 82 50	//	//	Silver LOUDNESS	R-3		
//	CB 63 82 60	//	//	Black //	//		
22	CB 63 82 70	//	//	Silver REC OUT	A-520		
//	CB 63 82 80	//	//	Black //	//		
23	BA 09 24 30	//	//	Silver VOLUME			
//	BA 09 24 40	//	//	Black //			
24	AA 62 73 10	GND Terminal	3×13 STG GNDターミナル				
25	ED 33 00 66	Binding Head Screw	3×6 FCRM3-BI バインド小ネジ	PACK			
26	EV 42 00 36	Sems Plain Washer	φ10×φ3.6×t0.8 FNM3-3g セムス平座金	//			
27	EZ 00 04 60	Binding Head Tapping Screw	3×8 FCRM3-BI ボンディングタイトネジ				
28	Ei 33 00 86	//	3×8 FCRM3-BI バインドタッピングネジ	PACK			
29	EO 33 00 66	Flat Head Tapping Screw	3×6 FCRM3-BI 皿タッピングネジ	//			
30	EN 93 00 10	Binding Head Tapping Screw	3×10 ZMC2-BI バインドタッピングネジ				
31	EK 13 50 20	BW Head Tapping Screw	4×8 FNM3-3g BWヘッドタッピングネジ	Silver			
//	EK 96 60 70	//	4×8 ZMC2-BI //	Black			
32	Ei 13 00 66	//	3×8 φ10 FNM3-3g //	PACK			
33	Ei 34 00 86	Binding Head Tapping Screw	4×8 FCRM3-BI バインドタッピングネジ	//			
34	Ei 03 00 66	//	3×6 ZMC2-Y //	//			
35	CB 60 56 20	Plastic Rivet	プラスチックリベット				
36	VD 09 00 00	Spacer	スペーサ			G	
37	VC 93 93 00	Sheet Isolation	シートアイソレーション			G	
38	CB 60 56 20	Plastic Rivet	プラスチックリベット				
39	AA 62 76 80	Support	サポート				
	CB 06 92 50	Binding Tie	BK-1 インシュロックタイ				
		Accessories	付属品				
	Mi 08 28 50	FM Q-matching Antenna	FM FMQマッチアンテナ			R,U,A,C,B	
	Mi 06 44 00	//	FM //			R,U,A,C,B	
	Mi 08 29 10	Loop Antenna	AM AMループアンテナ			G	
	VB 10 54 00	Matching Transformer	S-U50-25 整合器				
* //	VC 42 92 00	Remote Control Transmitter	RS-RX5 リモコントランスミッター	Silver		B	
* //	VC 42 94 00	//	RS-RX5 //	Black			
		Dry Battery	SUM-3 (DG) 単3乾電池				

\* New Parts (新規部品)



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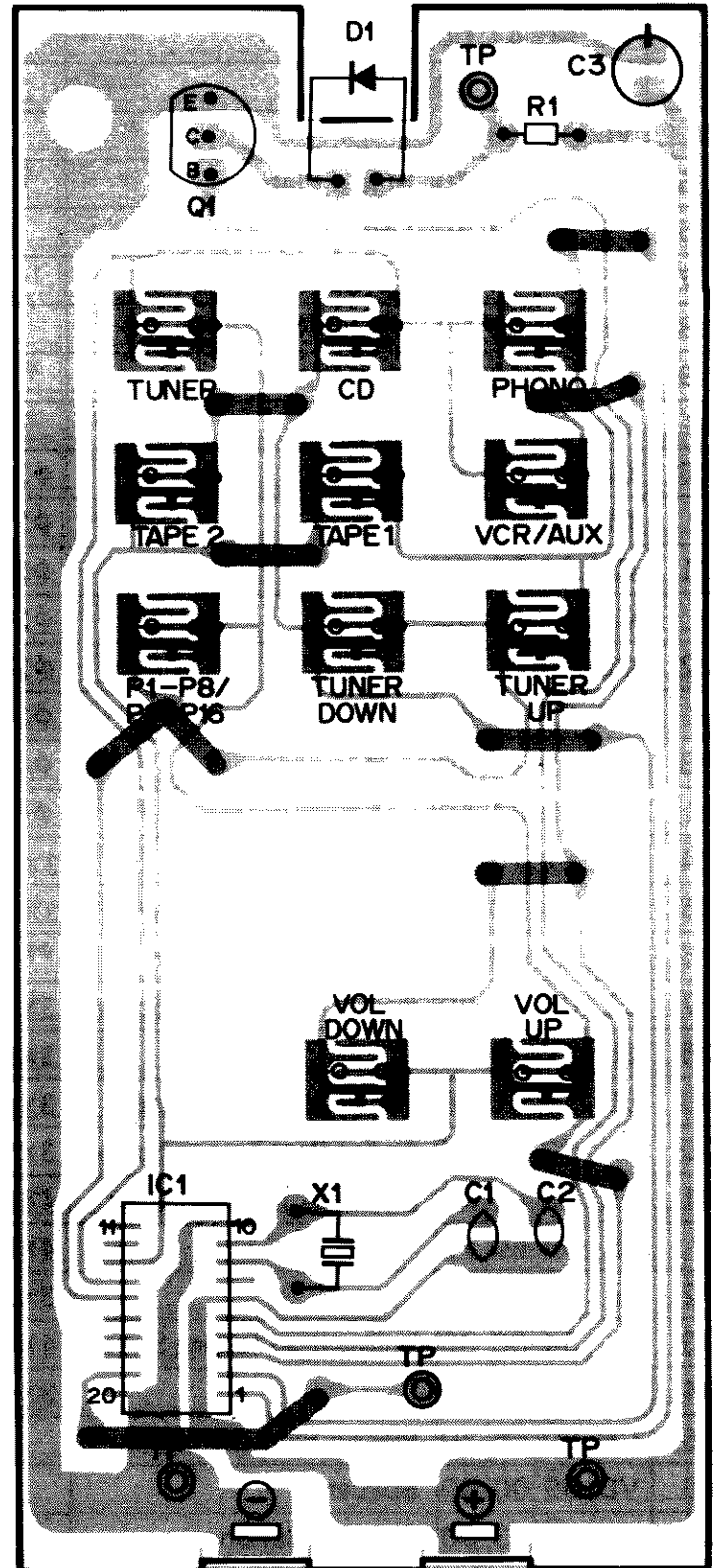
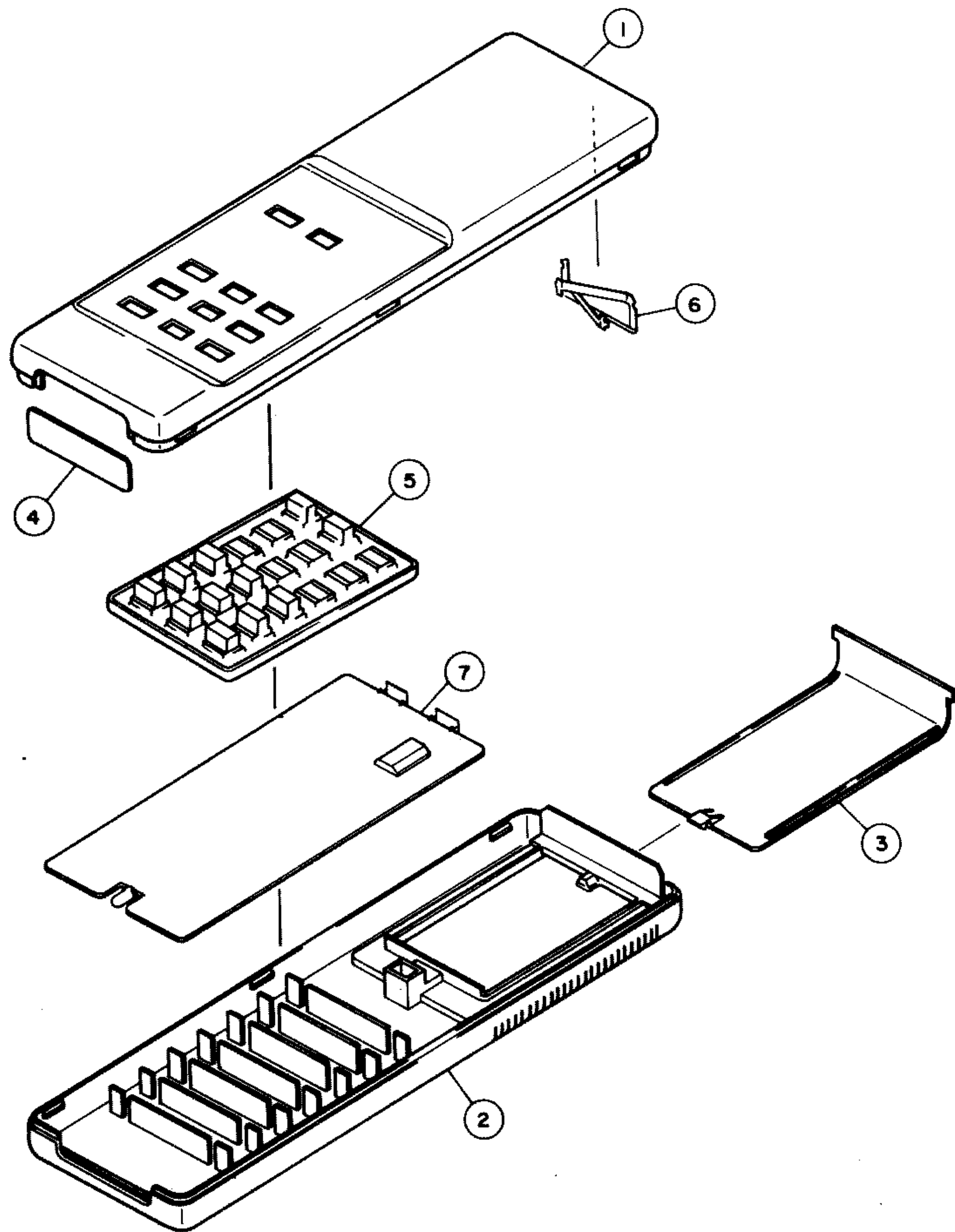
RX-500/500U

# REMOTE CONTROL TRANSMITTER

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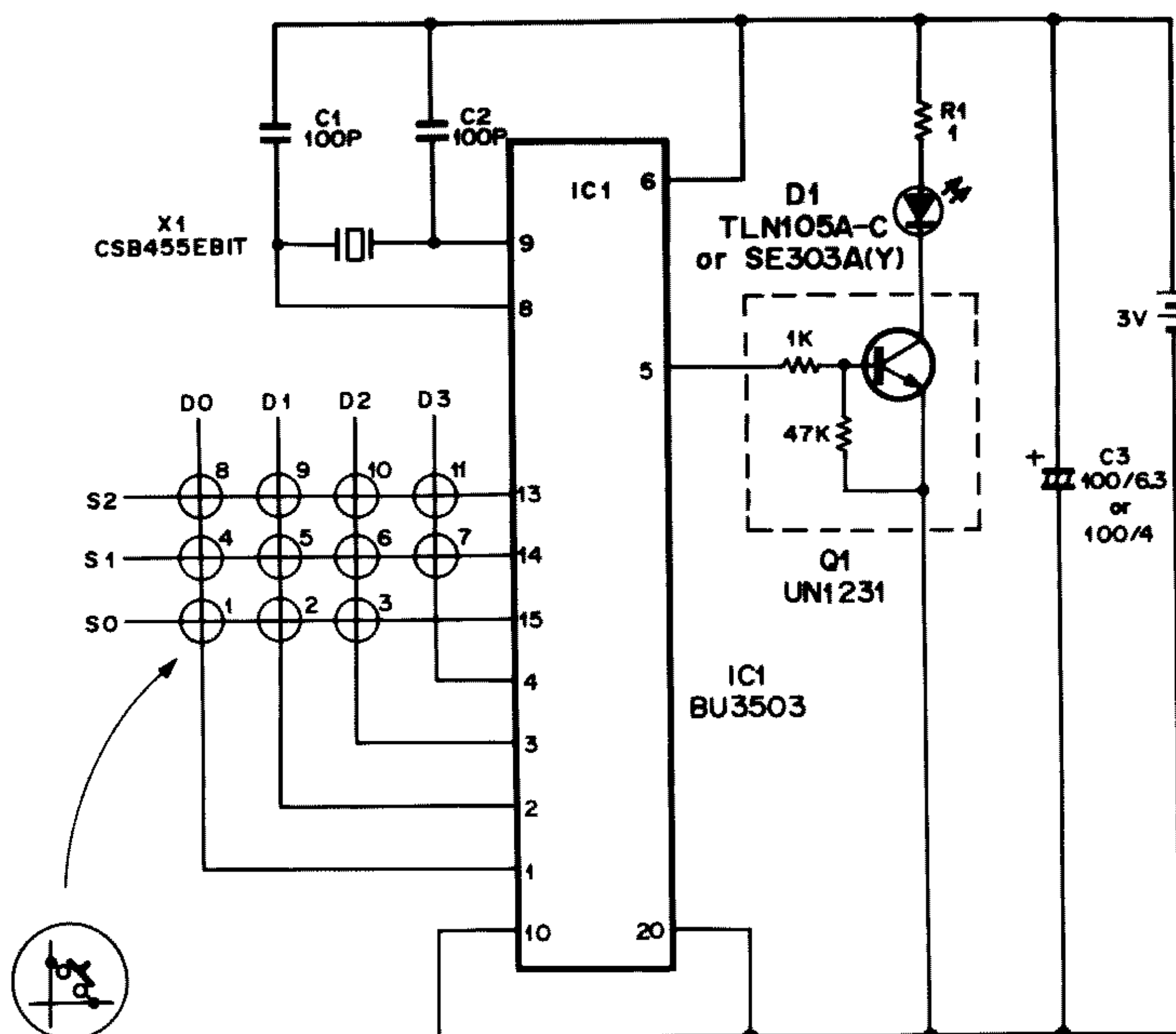
● MECHANISM EXPLODED VIEW

● PRINTED CIRCUIT BOARD (Pattern Side)



● SCHEMATIC DIAGRAM

- 11: VOL. DOWN
- 10: VOL. UP
- 9: TAPE 2
- 8: TAPE 1
- 7: VIDEO/AUX
- 6: TUNER
- 5: CD
- 4: PHONO
- 3: P1-P8/P9-P16
- 2: TUNER DOWN
- 1: TUNER UP



7

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## ELECTRICAL PARTS

Ref. No.	Part No.	Description	部品名		Remarks	Common Model	Markets	ランク
*	NX 60:04:30	P.C. Board Ass'y		プリント基板 Ass'y				
*	iX 60:89:70	IC	BU3503F	I C	IC1			
*	QX 60:00:20	Ceramic Resonator	CSB455EBIT	セラミック振動子	X1			
*	iX 60:53:10	Transistor	UN1231	トランジスター	Q1			
*	iX 60:86:10	LED	TLN105A-C	赤外線LED	D1			
*	FG 21:21:00	Ceramic Cap.	100pF 50V	セラコン	C1,2			
*	HJ 35:31:00	Carbon Film Resistor	1Ω	カーボン抵抗	R1			
*	UJ 11:81:00	Electrolitic Cap.	100μF 6.3V	ケミコン	C3			
*	LX 60:02:90	Battery Terminal (B)		電池電極板 (B)				

\*New Parts (新規部品)

## EXPLODED VIEW PARTS

Ref. No.	Part No.	Description	部品名		Remarks	Common Model	Markets	ランク
*	VD 21:72:00	Remote Control Transmitter	RS-RX5	リモートコントロール トランスミッター	Silver			
*	VD 21:73:00	//	RS-RX5	"	Black			
*	1 CX 60:07:00	Case A		上 ケース	Silver			
*	// CX 60:07:30	//		"	Black			
*	2 CX 60:04:70	Case B		下 ケース	Silver			
*	// CX 60:04:80	//		"	Black			
*	3 CX 60:04:90	Lid		電池カバー	Silver			
*	// CX 60:05:00	//		"	Black			
*	4 CX 60:05:10	Filter		スモーク板				
*	5 CX 60:07:20	Rubber		ゴム接点	Silver			
*	// CX 60:07:50	//		"	Black			
*	6 LX 60:02:80	Battery Terminal (A)		電池電極板 (A)				
*	7 NX 60:04:30	P.C. Board Ass'y		プリント基板 Ass'y				

\*New Parts (新規部品)



# Parts List for Carbon Resistor

Value	1/4W Type Part No.	1/6W Type Part No.	Value	1/4W Type Part No.	1/6W Type Part No.
1.0 Ω	HJ353100	※	12K Ω	HJ357120	HF857120
1.8 "	HJ353180	※	15 "	HJ357150	HF857150
2.2 "	HJ353220	HF853220	18 "	HJ357180	HF857180
3.3 "	HJ353330	HF853330	22 "	HJ357220	HF857220
4.7 "	HJ353470	HF853470	27 "	HJ357270	HF857270
5.6 "	HJ353560	HF853560	33 "	HJ357330	HF857330
10 "	HJ354100	HF854100	39 "	HJ357390	HF857390
15 "	HJ354150	HF854150	47 "	HJ357470	HF857470
22 "	HJ354220	HF854220	56 "	HJ357560	HF857560
27 "	HJ354270	HF854270	68 "	HJ357680	HF857680
33 "	HJ354330	HF854330	82 "	HJ357820	HF857820
39 "	HJ354390	HF854390	91 "	HJ357910	HF857910
47 "	HJ354470	HF854470	100 "	HJ358100	HF858100
56 "	HJ354560	HF854560	120 "	HJ358120	HF858120
68 "	HJ354680	HF854680	150 "	HJ358150	HF858150
82 "	HJ354820	HF854820	180 "	HJ358180	HF858180
100 "	HJ355100	HF855100	220 "	HJ358220	HF858220
110 "	HJ355110	HF855110	270 "	HJ358270	HF858270
120 "	HJ355120	HF855120	330 "	HJ358330	HF858330
150 "	HJ355150	HF855150	390 "	HJ358390	HF858390
160 "	HJ355160	※	470 "	HJ358470	HF858470
180 "	HJ355180	HF855180	560 "	HJ358560	HF858560
220 "	HJ355220	HF855220	680 "	HJ358680	HF858680
270 "	HJ355270	HF855270	820 "	HJ358820	HF858820
330 "	HJ355330	HF855330	1.0M Ω	HJ359100	HF859100
390 "	HJ355390	HF855390	1.2 "	HJ359120	※
470 "	HJ355470	HF855470	1.5 "	HJ359150	HF859150
510 "	※	HF855510	1.8 "	HJ359180	HF859180
560 "	HJ355560	HF855560	2.2 "	HJ359220	HF859220
680 "	HJ355680	HF855680	3.3 "	HJ359330	HF859330
820 "	HJ355820	HF855820	3.9 "	HJ359390	※
910 "	HJ355910	HF855910	4.7 "	HJ359470	※
1.0K Ω	HJ356100	HF856100			
1.2 "	HJ356120	HF856120			
1.5 "	HJ356150	HF856150			
1.8 "	HJ356180	HF856180			
2.0 "	HJ356200	HF856200			
2.2 "	HJ356220	HF856220			
2.4 "	HJ356240	HF856240			
2.7 "	HJ356270	HF856270			
3.0 "	HJ356300	HF856300			
3.3 "	HJ356330	HF856330			
3.6 "	HJ356360	HF856360			
3.9 "	HJ356390	HF856390			
4.7 "	HJ356470	HF856470			
5.1 "	HJ356510	HF856510			
5.6 "	HJ356560	HF856560			
6.8 "	HJ356680	HF856680			
8.2 "	HJ356820	HF856820			
9.1 "	HJ356910	HF856910			
10 "	HJ357100	HF857100			

