

# STEREO RECEIVER RX-396/496

## SERVICE MANUAL

### 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 any 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 or 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 part replacement. Recheck all work before you apply power to the unit.

RX-396/496

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**YAMAHA**  
YAMAHA CORPORATION  
P.O. Box 1, Hamamatsu, Japan

2.45K-176 Printed in Japan '98.6

## ■ TO SERVICE PERSONNEL

1. Critical Components Information.  
Components having special characteristics are marked  $\Delta$  and must be replaced with parts having specifications equal to those originally installed.
2. Leakage Current Measurement (For 120V Models Only).  
When service has been completed, it is imperative to verify that all exposed conductive surfaces are properly insulated from supply circuits.
  - Meter impedance should be equivalent to 1500 ohm shunted by 0.15 $\mu$ F.
  - Leakage current must not exceed 0.5mA.
  - Be sure to test for leakage with the AC plug in both polarities.



**“CAUTION”**

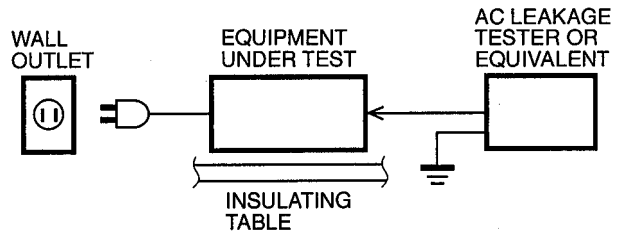
F101 : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 5.0A, 125V FUSE.”

**CAUTION**

F101 : REPLACE WITH SAME TYPE 5.0A, 125V FUSE.

**ATTENTION**

F101 : UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE DE 5.0A, 125V.



## WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

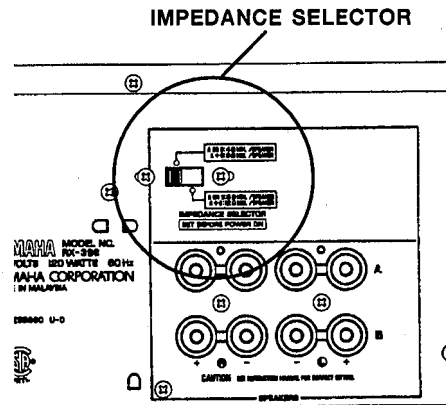
Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

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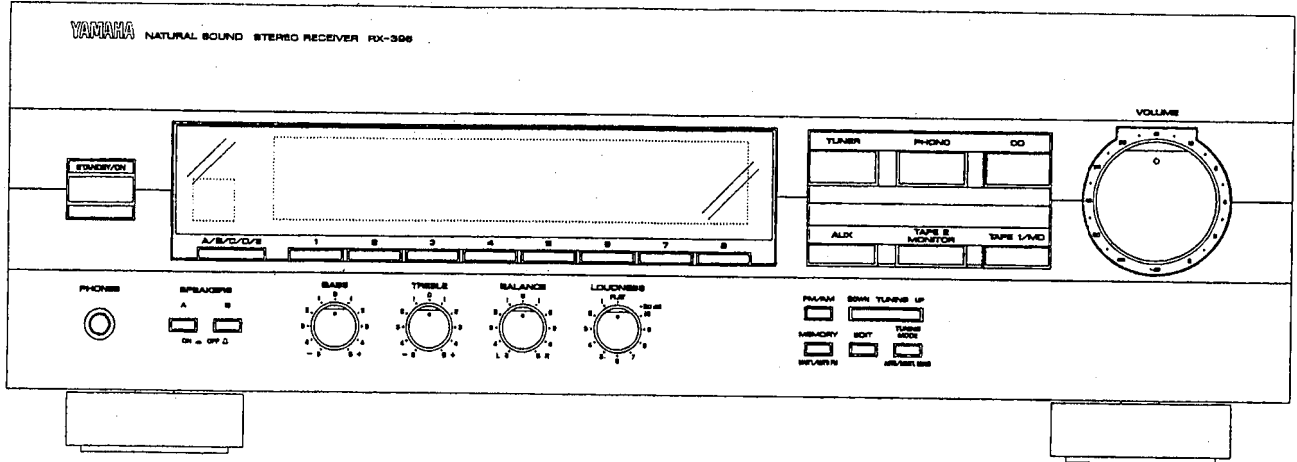
**WARNING**

Do not change the IMPEDANCE SELECTOR switch setting while the power to this unit is on, otherwise this unit may be damaged.

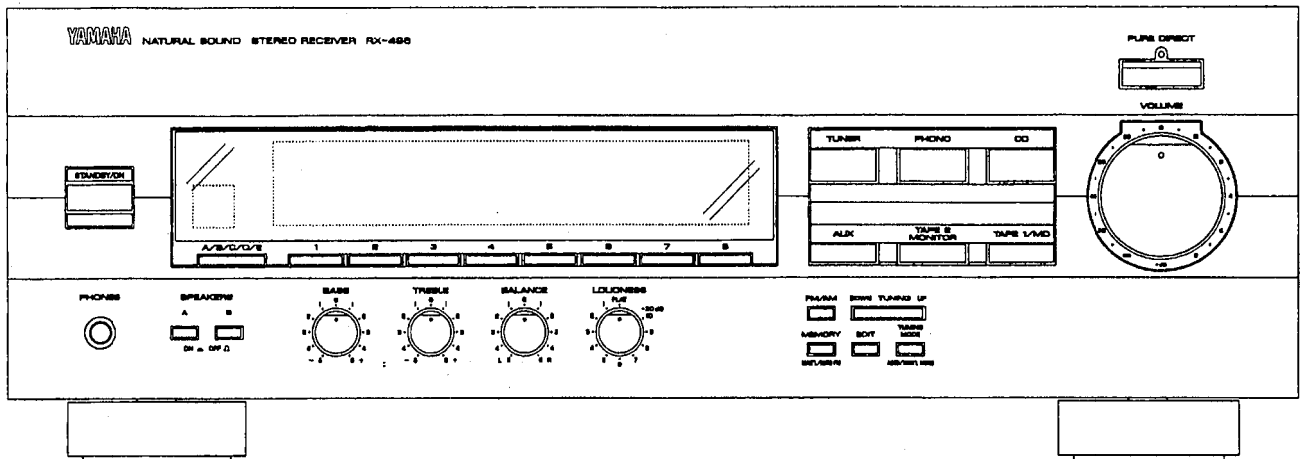


# FRONT PANELS

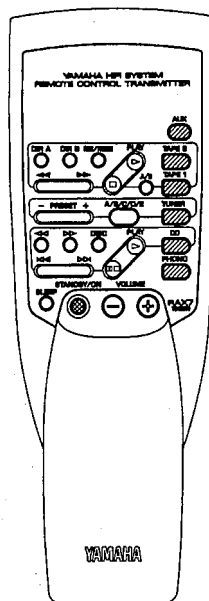
## ▼ RX-396 (U, C, R, A, G models)



## ▼ RX-496 (U, C, R, A models)



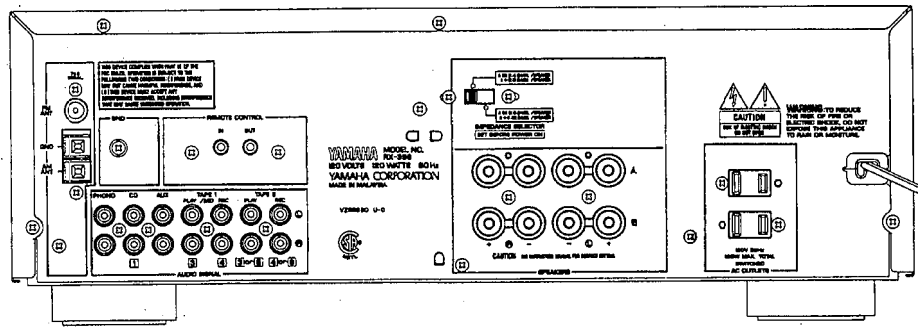
## ▼ RX-396/496



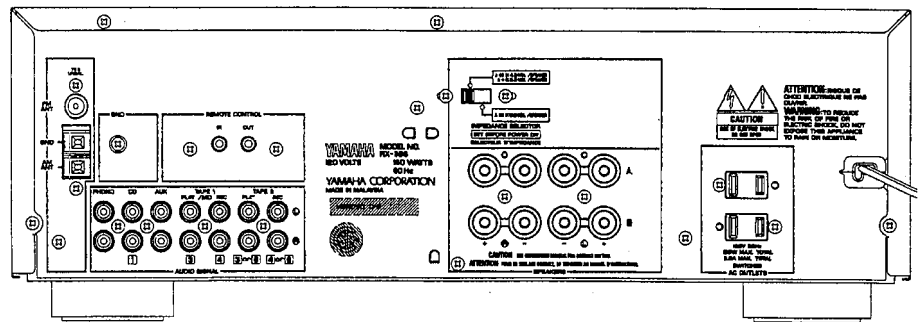
RX-396/496

# REAR PANELS

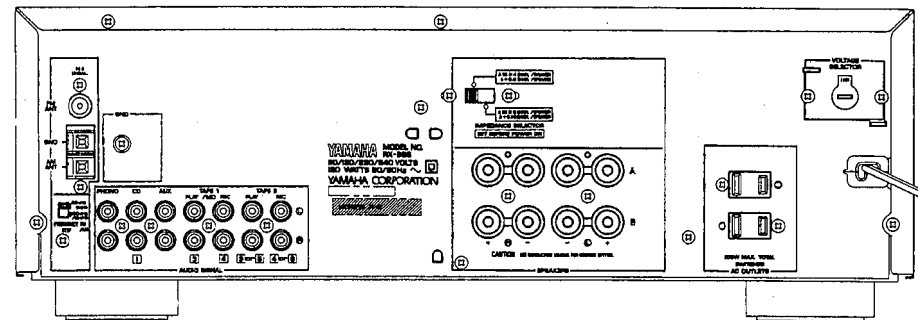
## ▼ RX-396 U model



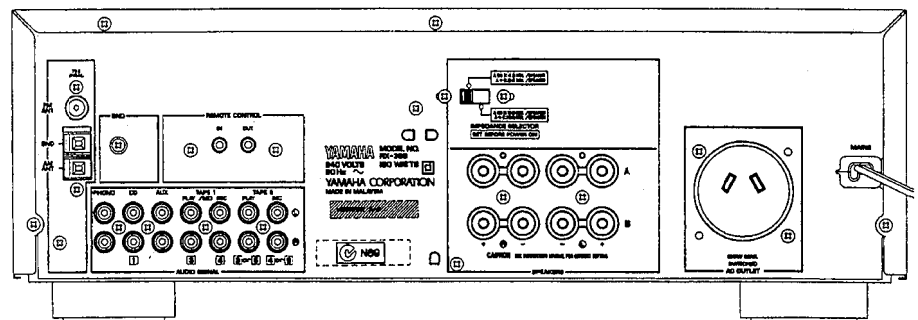
## ▼ RX-396 C model



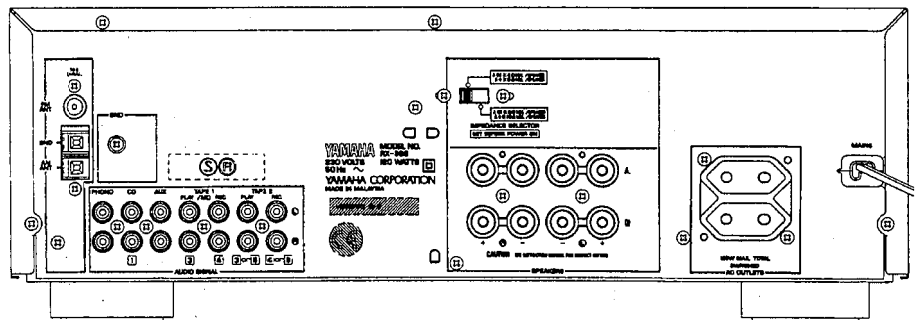
## ▼ RX-396 R model



## ▼ RX-396 A model

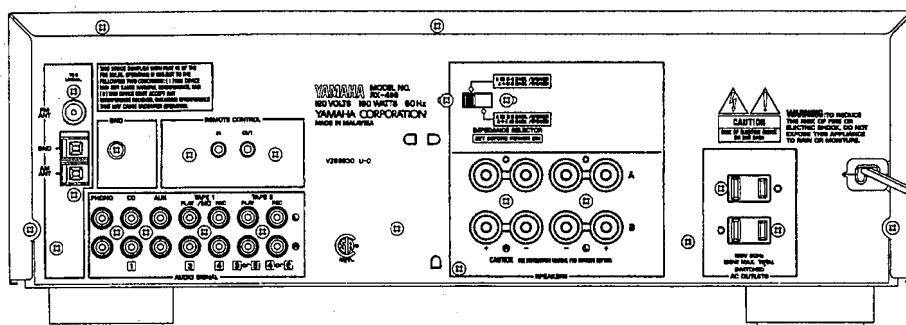


## ▼ RX-396 G model

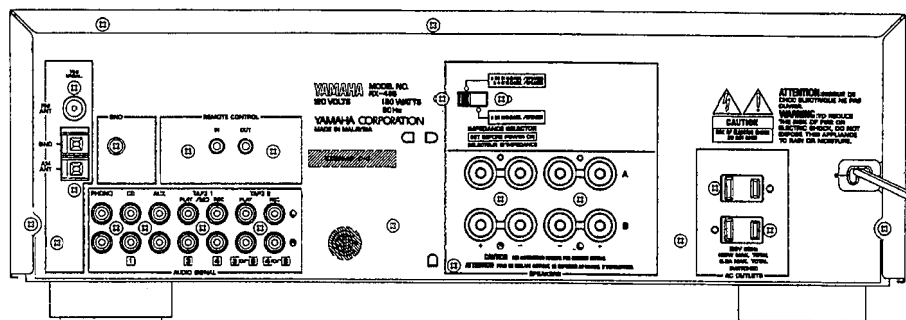


RX-396/496

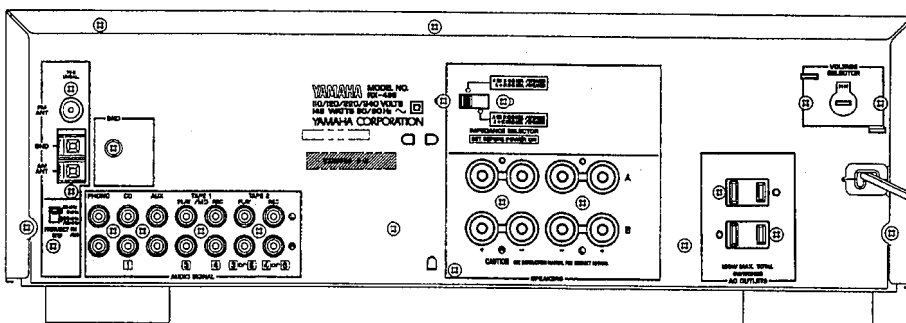
▼ RX-496 U model



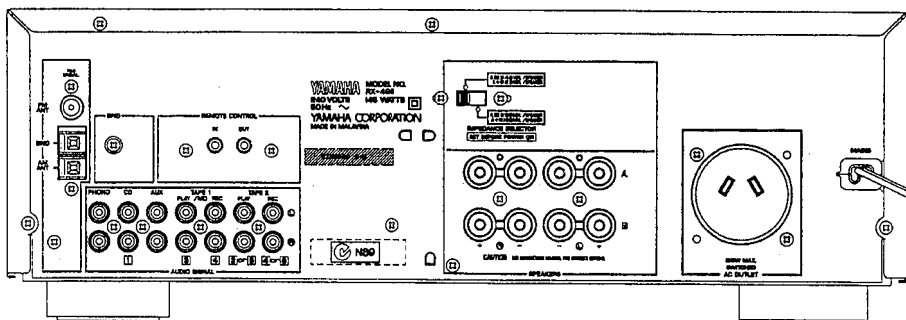
▼ RX-496 C model



▼ RX-496 R model



▼ RX-496 A model



RX-396/496

## ■ SPECIFICATIONS

### ■ AUDIO SECTION

<b>Minimum RMS Output Power per Channel</b>	
<b>RX-396</b>	
20Hz to 20kHz, 0.04% THD, 8Ω	50W + 50W
<b>RX-496</b>	
20Hz to 20kHz, 0.04% THD, 8Ω	75W + 75W
<b>Maximum Power per Channel (EIAJ)</b>	
<b>RX-396</b> (R model only)	
1kHz, 10% THD, 8Ω	70W
<b>RX-496</b> (R model only)	
1kHz, 10% THD, 8Ω	100W
<b>Dynamic Power per Channel (IHF)</b>	
<b>RX-396</b>	
8/6/4/2Ω	70/77/89/100W
<b>RX-496</b>	
8/6/4/2Ω	105/125/150/178W
<b>DIN Standard Output Power per Channel</b>	
<b>RX-396</b> (G model only)	
1kHz, 0.7% THD, 4Ω	55W
<b>IEC Power</b>	
<b>RX-396</b> (G model only)	
1kHz, 0.04% THD, 8Ω	52W
<b>Power Band Width</b>	
<b>RX-396</b>	
0.08% THD, 22.5W, 8Ω	10Hz to 50kHz
<b>RX-496</b>	
0.08% THD, 35W, 8Ω	10Hz to 50kHz
<b>Damping Factor</b>	
20Hz to 20kHz, 8Ω	100 or more
<b>Input Sensitivity/Impedance</b>	
PHONO MM	2.5mV/47kΩ
CD, etc	150mV/47kΩ
<b>Maximum Input Signal Level (1kHz, 0.04% THD)</b>	
PHONO MM	90mV
<b>Output Level</b>	
REC OUT	150mV
<b>Headphone Jack Rated Output/Impedance</b>	
<b>RX-396</b>	
0.04% THD, 8Ω	0.47V/330Ω
<b>RX-496</b>	
0.04% THD, 8Ω	0.49V/390Ω
<b>Frequency Response (20Hz to 20kHz)</b>	
CD, etc	0±0.5dB
<b>RIAA Equalization Deviation (20Hz to 20kHz)</b>	
PHONO MM	0±0.5dB
<b>Total Harmonic Distortion (20Hz to 20kHz)</b>	
PHONO MM to REC OUT (1V)	0.02%
CD, etc, to SP OUT (35W/8Ω)	0.02%
<b>Signal-to-Noise Ratio (IHF-A-Network)</b>	
PHONO MM, Input Shorted (5mV)	82dB
CD, etc, Input Shorted	108dB
<b>Residual Noise (IHF-A-Network)</b>	
	100μV
<b>Channel Separation (Vol. - 30dB)</b>	
CD, etc, Input 5.1kΩ Shorted, 1kHz	60dB
<b>Tone Control Characteristics</b>	
BASS : Boost/cut	±10dB (50Hz)
Turnover Frequency	350Hz
TREBLE : Boost/cut	±10dB (20kHz)
Turnover Frequency	3.5kHz
<b>Continuous Loudness Control</b>	
	- 30dB (1kHz)
	(Level related equalization)

### ■ FM SECTION

<b>Tuning Range</b>	
U, C models	87.5 to 107.9MHz
A, G models	87.50 to 108.00MHz
R model	87.5 to 107.9/87.50 to 108.00MHz
<b>50dB Quieting Sensitivity (IHF, 75 Ω)</b>	
U, C, R, A models only	
Mono	1.55μV (15.1dBf)
Stereo 1kHz, 100% mod.	21μV (37.7dBf)
<b>Usable Sensitivity (75 Ω)</b>	
1kHz 100% mod. (30dB S/N Quieting)	
U, C, R, A models	0.8μV (9.3dBf)
DIN, Mono (S/N 26dB) G model	0.9μV
DIN, Stereo (S/N 46dB) G model	24μV
<b>Image Response Ratio</b>	
U, C, R, A models	45dB
G model	80dB
<b>IF Response Ratio</b>	
	80dB
<b>Spurious Response Ratio</b>	
	70dB
<b>AM Suppression Ratio</b>	
	55dB
<b>Capture Ratio</b>	
	1.5dB
<b>Signal-to-Noise Ratio</b>	
Mono/Stereo (IHF)	
U, C, R, A models	80/75dB
Mono/Stereo (DIN-weighted)	
G model (40kHz Dev.)	75/70dB
<b>Harmonic Distortion (1kHz)</b>	
Mono/Stereo	
U, C, R, A models	0.1/0.2%
Mono/Stereo	
G model (40kHz Dev.)	0.1/0.2%
<b>Stereo Separation (1kHz)</b>	
U, C, R, A models	50dB
G model (40kHz Dev.)	50dB
<b>Frequency Response</b>	
20Hz to 15kHz	0 ± 1.5dB
<b>Output Level/Impedance</b>	
FM (100% mod.), 1kHz	
U, C, R, A models	500mV/2.2kΩ
G model (40kHz Dev.)	500mV/2.2kΩ

### ■ AM SECTION

<b>Tuning Range</b>	
U, C models	530 to 1710kHz
A, G models	531 to 1611kHz
R model	530 to 1710/531 to 1611kHz
<b>Usable Sensitivity</b>	
	100μV/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 (1kHz)</b>	
	0.3%
<b>Output Level/Impedance</b>	
AM (30% mod., 1kHz)	150mV/2.2kΩ

**■ GENERAL**

**Power Supply**

U, C models	AC 120V, 60Hz
A model	AC 240V, 50Hz
G model	AC 230V, 50Hz
R models	AC 110/120/220/240V, 50/60Hz

**Power Consumption**

**RX-396**

U model	120W
C model	150W
R, A, G models	120W

**RX-496**

U model	160W
C model	180W
R, A models	145W

**AC Outlets**

U, C, R, G models	
Switched x 2	100W max (Total)
A model	
Switched x 1	100W max

**Dimensions (W x H x D)** ..... 435 x 151 x 309.3mm  
 (17-1/8" x 5-15/16" x 12-3/16")

**Weight**

<b>RX-396</b>	6.4 kg (14 lbs. 1 oz)
<b>RX-496</b>	8.2 kg (18 lbs. 1 oz)

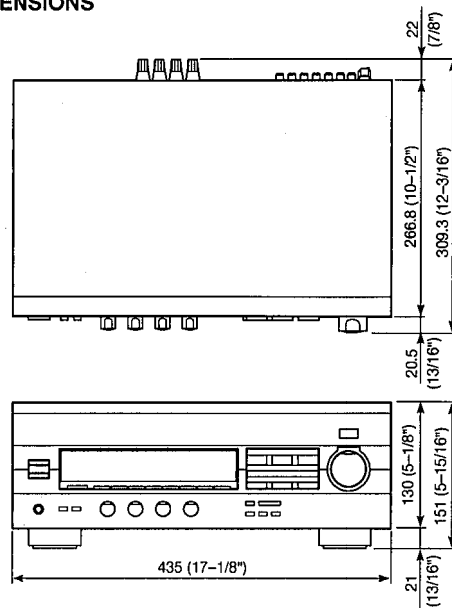
**Accessories**

- AM loop antenna x 1
- Indoor FM antenna x 1
- Remote Control Transmitter x 1
- Battery (size "AA", "R06") x 2

\* Specifications subject to change without notice.

<b>U</b> ..... <b>USA model</b>	<b>G</b> ..... <b>European model</b>
<b>C</b> ..... <b>Canadian model</b>	<b>R</b> ..... <b>General model</b>
<b>A</b> ..... <b>Australian model</b>	

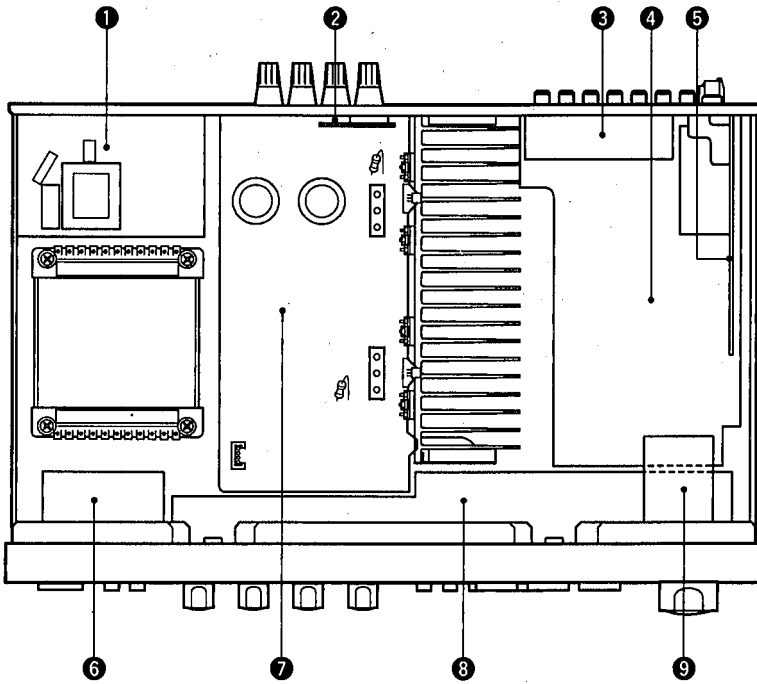
**● DIMENSIONS**



Units : mm (inch)

RX-396/496

**INTERNAL VIEW**



- ① P. C. B. MAIN (2)
- ② P. C. B. MAIN (5)
- ③ P. C. B. INPUT (6) .....U, C, A only
- ④ P. C. B. INPUT (1)
- ⑤ P. C. B. TUNER
- ⑥ P. C. B. MAIN (3)
- ⑦ P. C. B. MAIN (1)
- ⑧ P. C. B. INPUT (2)
- ⑨ P. C. B. INPUT (4) .....RX-496 only

**DISASSEMBLY PROCEDURES** (Remove parts in disassembly order as numbered.)

**1. Removal of Top Cover**

a. Remove 4 screws ( ① ) and 4 screws ( ② ) in Fig. 1.

**2. Removal of Front Panel**

a. Remove the knobs.

b. Remove 6 screws ( ③ ) in Fig. 1.

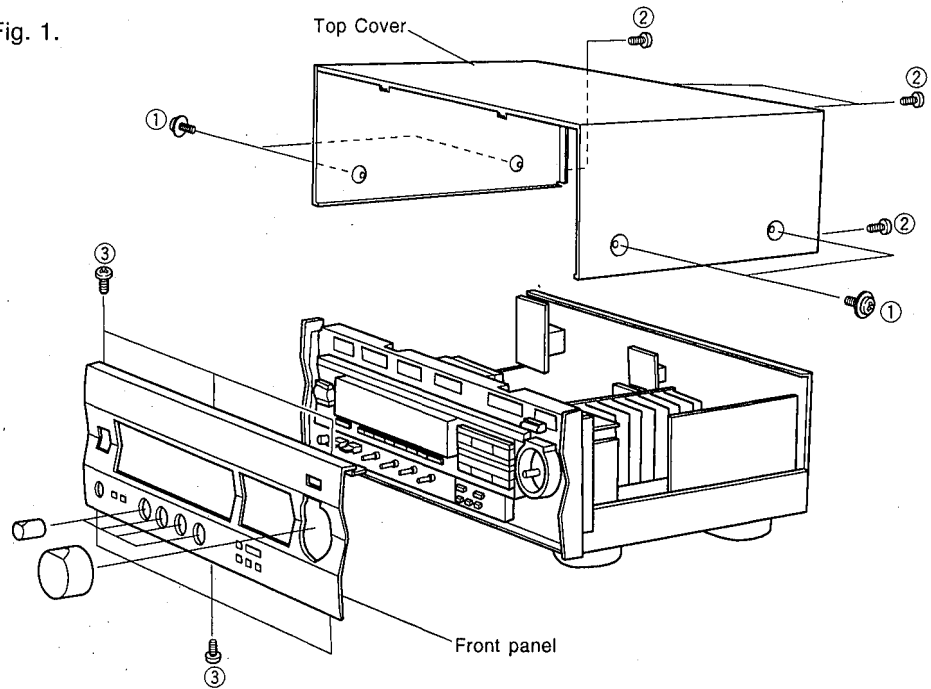


Fig. 1



**3. Checking and Parts Replacement of Main Unit**

- a. Disconnect the power cord from the AC outlet.
- b. Remove 2 screws (④) and 1 screw (⑤) in Fig. 2.
- c. Detach 1 connector terminal (CB103) in Fig. 2.
- d. Operating checks can be taken by shorting between the following test points in Fig. 2.

Short Point
TP101 and TP102
TP103 and TP104
TP105 and TP106

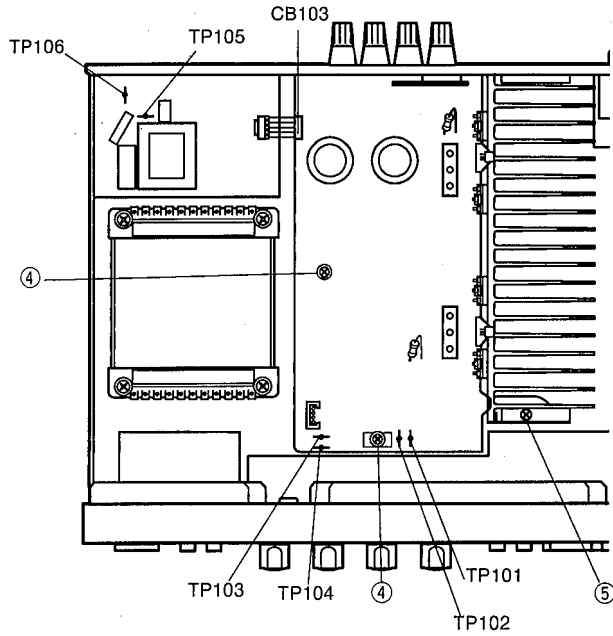


Fig. 2

- e. Remove 5 screws (⑥) in Fig. 3.
- f. Place the Main Unit on its side as shown in Fig. 4.
- g. Connect the power cord and turn ON the POWER switch.

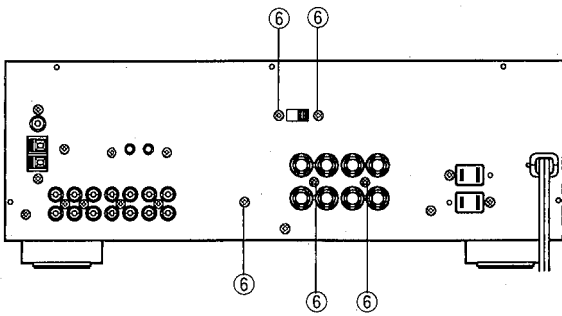


Fig. 3

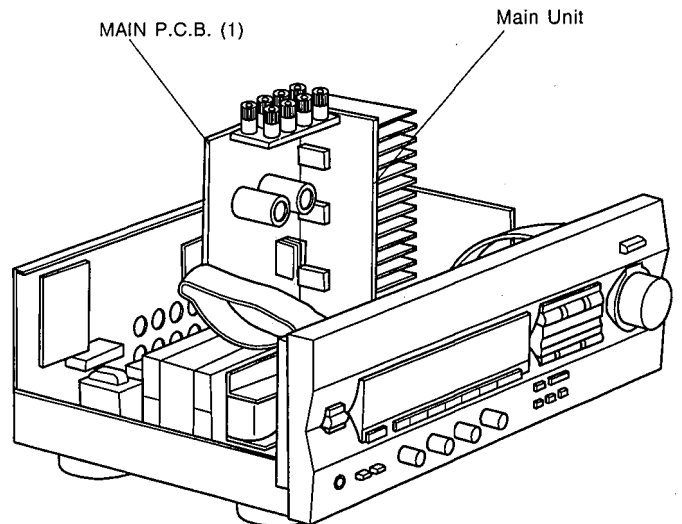


Fig. 4

## ■ TEST MODE

**CAUTION :** Before setting to the TEST mode, write down the existing preset memory content of the Tuner in a table as shown below. (This is because setting to the TEST mode will cause the memory content to be as factory set, i.e., all the preset memory by the user will be erased.)

Preset group	P1	P2	P3	P4	P5	P6	P7	P8
A								
B								
C								
D								
E								

### How to start

Turn the POWER switch ON while pressing the CD and PRESET STATION No. 8 keys simultaneously. The unit enters the TEST mode for the display check (All display segments light immediately).

### How to cancel

Normal operation is restored when the POWER switch is turned OFF. At the same time, the factory preset, memory is also restored.

### ● Factory preset memory content

Preset group	P1	P2	P3	P4
A/C/E	87.5MHz	90.1MHz	95.1MHz	98.1MHz
B/D	630kHz	1080kHz	1440kHz	530kHz (U, C, R) 531kHz (R, A, G)

Preset group	P5	P6	P7	P8
A/C/E	108MHz	88.1MHz	106.1MHz	108MHz
B/D	1710kHz (U, C, R) 1611kHz (R, A, G)	900kHz	1350kHz	1400kHz (U, C, R) 1404kHz (R, A, G)

For all the above, AUTO TUNING and AUTO STEREO are selected as the TUNING mode.

## ■ PROTECTION OPERATION CHECK FUNCTION

1. Turn the POWER switch ON while pressing the AUX and PRESET STATION No. 8 keys simultaneously, and the protection operation mode and the microprocessor AD input value are displayed for 3 seconds.

**Example :** PRT-PS [AD value]  
PRT-DC

[PRT-PS] indicates detection of an abnormal DC value from the amplifier.

[PRT-DC] indicates detection of an abnormal overcurrent from the amplifier.

[PRT-NON] indicates no detection.

When the PRESET STATION No. 8 key is pressed during the above display, the input data are retained till they are cleared.  
("PRT-NON" appears on display when the data are cleared.)

2. Turn the POWER switch ON while pressing the AUX and the PRESET STATION No. 7 keys simultaneously, and the input value for detection of an abnormal amplifier DC will be displayed.

**Example :** DC - [AD value]

[DC- ] indicates detection of an abnormal amplifier DC.

Type of protection	Normal (AD value)	Abnormal (AD value)
Detection of an abnormal amplifier DC	128 - 255	0 - 127

Press any key, and the display will be canceled.

## AMP ADJUSTMENTS

### Confirmation of Idling Current

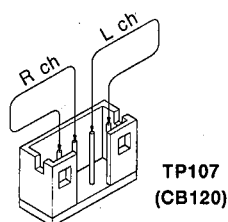
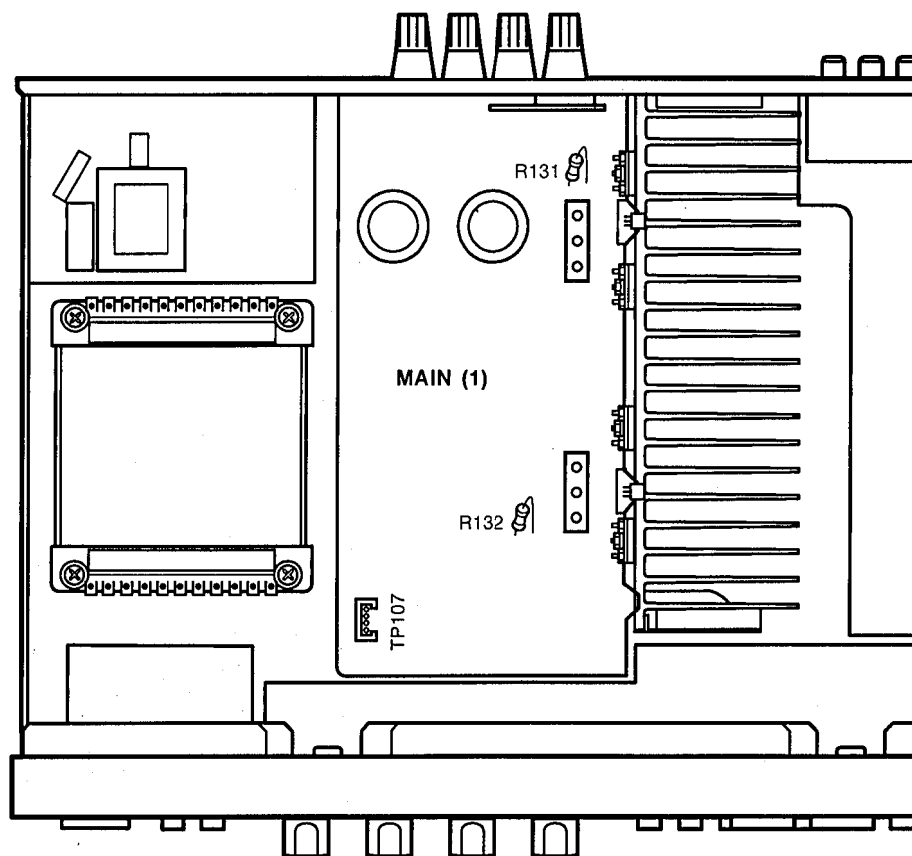
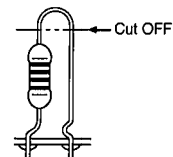
- 1) No signal applied.
- 2) Non-loaded condition.
- 3) Aging is not necessary.

Item	Test Point	Rating (DC)	Note
MAIN L	TP107 (CB120)	0.05mV~2.5mV	If the measured voltage exceeds 2.6mV, cut the lead wire of R131(L ch) or R132(R ch) and then check again if each measured value satisfies the rating.
MAIN R			

**Note)**

- If R131(L ch) or R132(R ch) have already been cut off and idling current does not flow, reconnect R131(1kΩ) or R132(1kΩ).
- Q107 and Q108 are transistors for temperature correction. Apply silicone grease to the contact surface with the heat sink.

R131 (L ch)  
R132 (R ch)



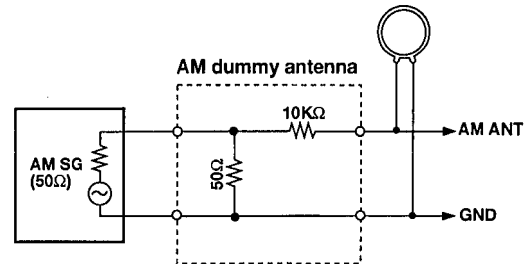
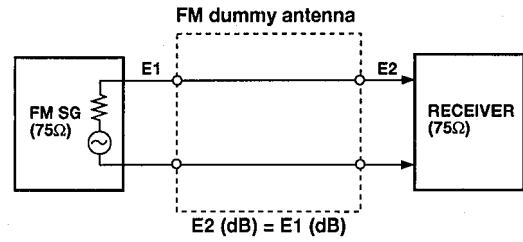
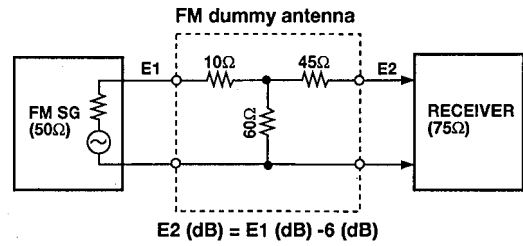
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## TUNER ADJUSTMENTS

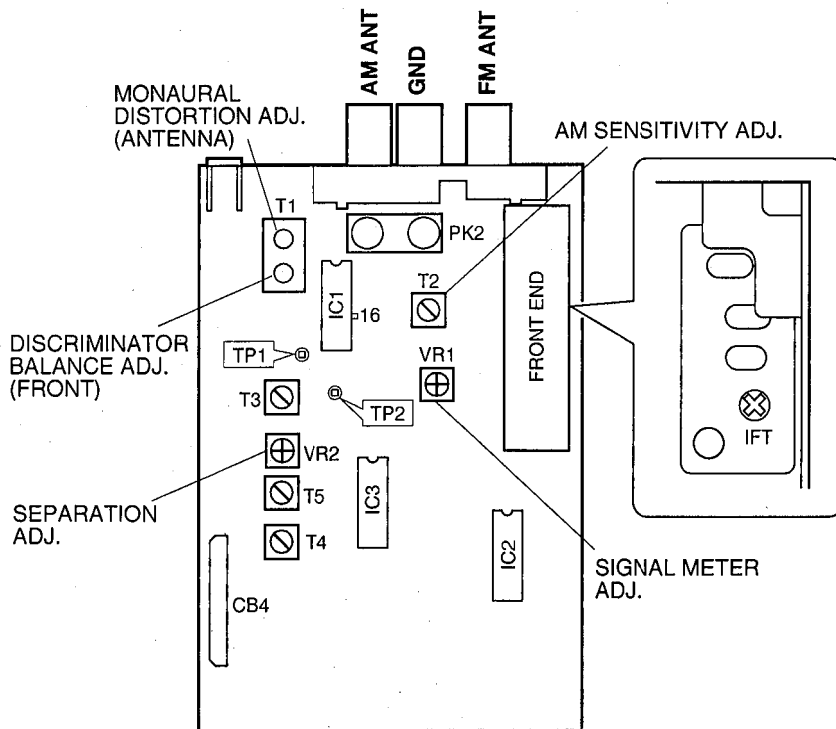
### Measuring Instruments

- FM signal generator (FM SG)
- Stereo signal generator (SSG)
- AM signal generator (AM SG)
- Distortion meter (DIST. M)
- AC voltmeter (ACVM)
- DC voltmeter (DCVM)
- Oscilloscope
- Low pass filter (YLF-15,  $f_c=15\text{kHz}$ )
- Oscillator

### Dummy antenna



### Test point



**FM Adjustment**

● **Before Adjustment**

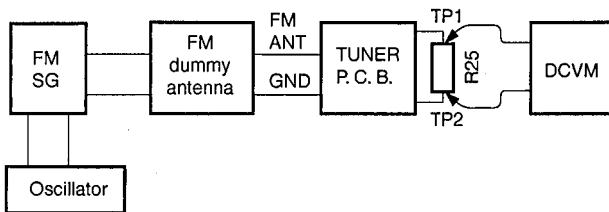
- 1) For dB,  $1\mu V=0dB\mu$   
**Example** :  $60dB\mu=1mV$
- 2) 100% modulation means that the frequency deviation is  $\pm 75kHz$ .

- 3) Install the Matching Transformer and connect FM SG.
- 4) Set each switch to the following position unless otherwise specified.

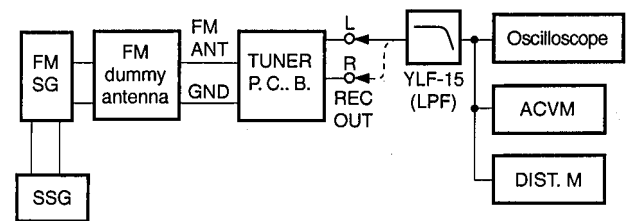
INPUT SELECTOR ..... TUNER  
 TUNING MODE ..... AUTO

● **Connection diagram (Measuring instruments)**

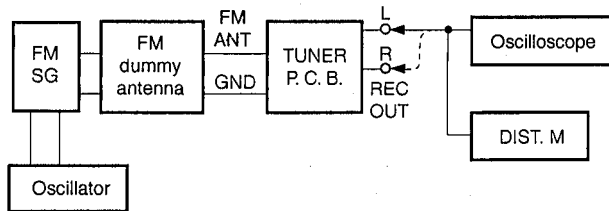
1) **Discriminator balance adjustment**



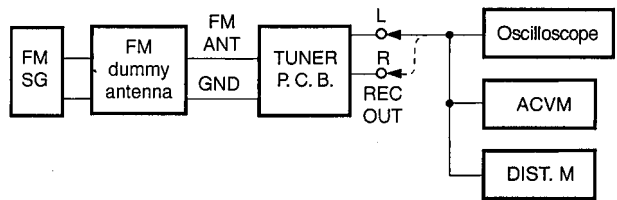
3) **Stereo distortion adjustment/separation adjustment**



2) **Monaural distortion adjustment**



4) **Sensitivity Verification**



See page 11 for TP locations & adjustment points.

Step	Adjustment item	Signal (ANT IN)	Reception frequency	Adjustment point	Test point	Rating
1	Rough adjustment of discriminator balance	FM ANT (75Ω) 98.1MHz ** 70dBμ MONO 1kHz 100% modulation	98.1MHz * (A-4)	T1 (Front side core)	Both ends of R25 (Between TP1 and TP2)	DC 0V±100mV
2	Rough adjustment of monaural distortion	Same as Step 1.	98.1MHz * (A-4)	T1 (Antenna side core)	REC OUT L, R	Minimize the distortion.
3	Fine adjustment of discriminator balance	Same as Step 1.	98.1MHz * (A-4)	T1 (Front side core)	Both ends of R25 (Between TP1 and TP2)	DC 0V±50mV
4	Fine adjustment of monaural distortion	Same as Step 1.	98.1MHz * (A-4)	T1 (Antenna side core)	REC OUT L, R	Minimize the distortion (to 0.25% or less).
5	Verification of discriminator balance	Same as Step 1.	98.1MHz * (A-4)	T1 (Front side core)	Both ends of R25 (Between TP1 and TP2)	DC 0V±50mV

\* : Execution of FACTORY PRESET (Refer to page 9.) will facilitate setting reception frequency for adjustment.

\*\* Must be 98.1MHz ± 5kHz

RX-396/496

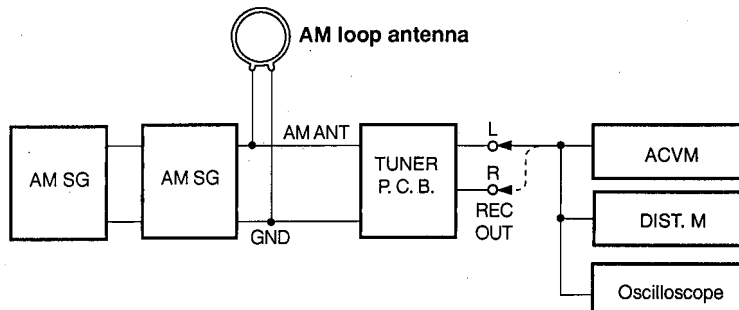
Step	Adjustment item	Signal (ANT IN)	Reception frequency	Adjusted point	Test point	Rating
6	Adjustment of front end IFT	FM ANT (75Ω) 98.1MHz 30dBμ MONO 1kHz, 100% modulation	98.1MHz * (A-4)	Front end IFT	Pin 16 of IC1	Adjust so that the DC voltage is maximum. <b>CAUTION</b> : Over-adjustment of the IFT core will reduce the sensitivity. Maximum ±90°
7	Verification of monaural distortion	FM ANT (75Ω) 98.1MHz 70dBμ MONO 1kHz, 100% modulation	98.1MHz * (A-4)		REC OUT L, R	0.4% or less
8	Verification of stereo distortion	FM ANT (75Ω) 98.1MHz 70dBμ Stereo L or R 1kHz, 100% modulation	98.1MHz * (A-4) * Tuning mode should be AUTO.		REC OUT L, R	1% or less • STEREO indicator should light.
9	Verification of sensitivity	FM ANT (75Ω) 88.1MHz 98.1MHz 106.1MHz MONO 1kHz Modulation off	88.1MHz * (A-6) 98.1MHz * (A-4) 106.1MHz * (A-7)		ANT (75Ω)	1) Set the tuning mode to MAN'L MONO. (Muting OFF) 2) S/N should be 30dB at each frequency of 88.1MHz, 98.1MHz, and 106.1MHz. 3) Check to ensure that the voltage at the ANT terminal is 3dBμ (14.25dBf) or less. (G only : 6dBμ or less)
10	Adjustment of Separation	FM ANT (75Ω) 98.1MHz 70dBμ Stereo L or R 1kHz, 100% modulation	98.1MHz * (A-4)	VR2	REC OUT L, R	With SSG output at L or R, the signal leakage level at the other channel should be minimized. 36dB or more
11	Adjustment of Signal meter	FM ANT (75Ω) 98.1MHz 45dBμ MONO 1kHz 30% modulation	98.1MHz * (A-4)	VR1		Adjust so that all segments light.
		-10dBμ or less				Check to ensure that signal meters turn OFF.
12	Verification of auto tuning	FM ANT (75Ω) 98.1MHz 23dBμ Stereo L or R 1kHz, 30% modulation	98.1MHz			• Automatic reception should be available when the tuning key is moved UP and DOWN. • The stereo indicator should light. • Audio muting should be applied during tuning.

\* : Execution of FACTORY PRESET (Refer to page 9.) will facilitate setting reception frequency for adjustment.

**AM Adjustment (This should be done after FM adjustment.)**

● **Connection Diagram (Measuring instruments)**

1) **Adjustment of sensitivity**



See page 11 for TP locations & adjustment points.

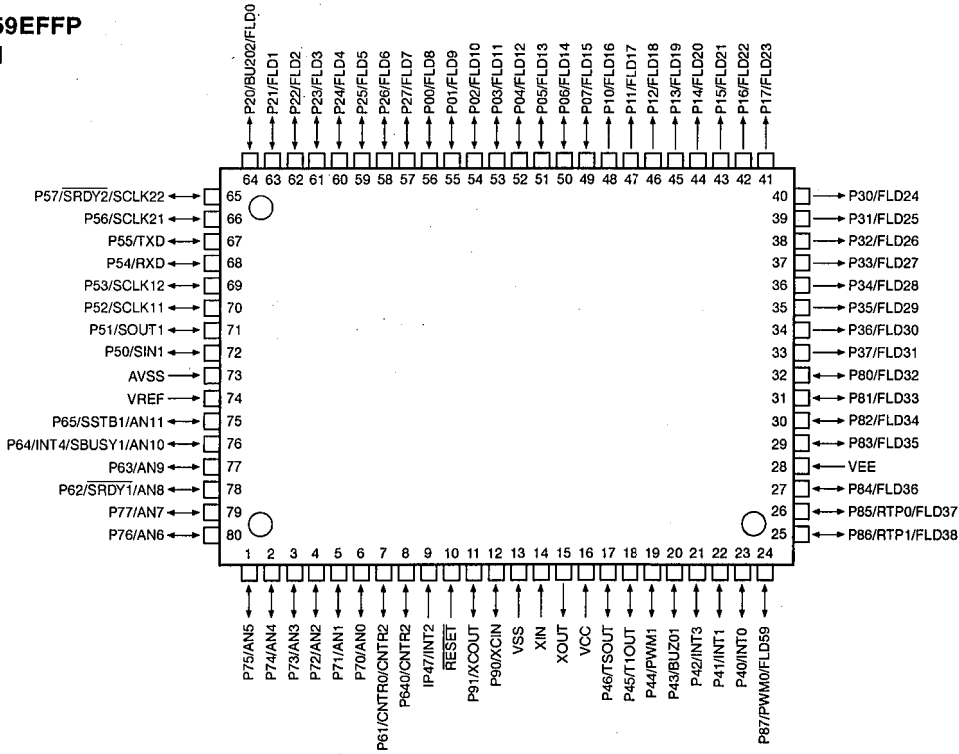
Step	Adjustment item	Signal (ANT IN)	Reception frequency	Adjustment point	Test point	Rating
1	Adjustment of sensitivity (1440Hz)	AM ANT 1440kHz 50dB $\mu$ 1kHz 30% modulation	1440kHz * (B-3)	T2	REC OUT	Audio output should be maximized.
2	Verification of sensitivity (630kHz)	AM ANT 630kHz 50dB $\mu$ 1kHz 30% modulation	630kHz * (B-1)	T2	REC OUT	Audio output should be maximized. Repeat the Step 1 and 2.
3	Verification of sensitivity	AM ANT 630kHz 1080kHz 1440kHz 30% modulation	630kHz * (B-1) 1080kHz * (B-2) 1440kHz * (B-3)		AM ANT	Distortion should be 10% or less at each frequency. Check to ensure that the voltage at the ANT terminal is 54dB $\mu$ or less.
4	Verification of auto tuning	AM ANT 60dB $\mu$				Auto reception should be available when the tuning key is moved UP and DOWN.

\* : Execution of FACTORY PRESET (Refer to page 9.) will facilitate setting reception frequency for adjustment.

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■ IC DATA

IC4 : M38B59EFFF  
8 bit  $\mu$ -COM



Pin No.	Port	I/O	Function
1	P75	I	KEY AD IN 4 (A-D)
2	P74	I	KEY AD IN 3 (A-D)
3	P73	I	KEY AD IN 2 (A-D)
4	P72	I	KEY AD IN 1 (A-D)
5	P71	I	PROTECTION 1 DETECT (A-D)
6	P70	I	PROTECTION 2 DETECT (A-D)
7	P61	O	Full mute [L : ON]
8	P60	O	OPEN
9	P47	I	REMOTE CONTROL IN
10	/RES	I	RESET
11	P91	I	V2 market
12	P90	I	V1 market
13	VSS	I	GND
14	XIN	I	4MHZ
15	XOUT	O	4MHZ
16	VCC	I	+ 5V
17	P46	O	OPEN
18	P45	O	OPEN
19	P44	O	OPEN
20	P43	O	OPEN
21	P42	O	OPEN
22	P41	I	Power down detect [L : DOWN]
23	P40	I	START IN RDS (INT0)
24	P87	O	OPEN [L : ON]
25	P86	O	OPEN [L : ON]
26	P85	O	Volume up out
27	P84	O	Volume down out

**Protection 1 (5 pin)**

Detection of an abnormal amplifier DC. Normal when AD value 128 - 255.  
Detection starts 2 seconds after the power is turned ON.

**Protection 2 (6 pin)**

Detection of an abnormal amplifier overcurrent. Abnormality detected at H.  
Detection starts after the power is turned ON.

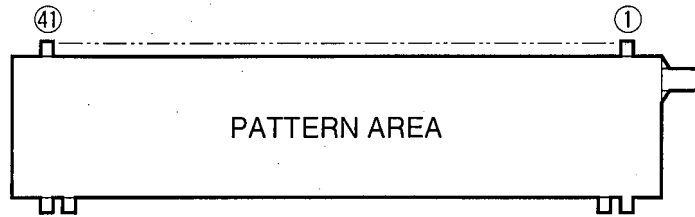


**IC4 : M38B59EFP**  
**8 bit  $\mu$ -COM**

Pin No.	Port	I/O	Function
28	VEE	I	- 25V
29	P83	I	POWER switch in [H : ON]
30	P82	O	OPEN
31	P81	O	SPEAKER RELAY OUT (MAIN) [H : ON]
32	P80	O	POWER RELAY OUT [H : ON]
33	P37	O	OPEN [H : ON]
34	P36	O	OPEN [H : ON]
35	P35	O	OPEN [H : ON]
36	P34	O	FL SEGMENT 4 [H : ON]
37	P33	O	FL SEGMENT 5 [H : ON]
38	P32	O	FL SEGMENT 6 [H : ON]
39	P31	O	FL SEGMENT 7 [H : ON]
40	P30	O	FL SEGMENT 8 [H : ON]
41	P17	O	FL SEGMENT 9 [H : ON]
42	P16	O	FL SEGMENT 10 [H : ON]
43	P15	O	FL SEGMENT 11 [H : ON]
44	P14	O	FL SEGMENT 12 [H : ON]
45	P13	O	FL SEGMENT 13 [H : ON]
46	P12	O	FL SEGMENT 14 [H : ON]
47	P11	O	FL SEGMENT 15 [H : ON]
48	P10	O	FL SEGMENT 16 [H : ON]
49	P07	O	FL DIGIT 12 [H : ON]
50	P06	O	FL DIGIT 11 [H : ON]
51	P05	O	FL DIGIT 10 [H : ON]
52	P04	O	FL DIGIT 9 [H : ON]
53	P03	O	FL DIGIT 8 [H : ON]
54	P02	O	FL DIGIT 7 [H : ON]
55	P01	O	FL DIGIT 6 [H : ON]
56	P00	O	FL DIGIT 5 [H : ON]
57	P27	O	FL DIGIT 4 [H : ON]
58	P26	O	FL DIGIT 3 [H : ON]
59	P25	O	FL DIGIT 2 [H : ON]
60	P24	O	FL DIGIT 1 [H : ON]
61	P23	O	Not used (GND)
62	P22	O	Not used (GND)
63	P21	O	Not used (GND)
64	P20	O	Not used (GND)
65	P57	O	CE INPUT out
66	P56	O	Serial clock out
67	P55	O	Serial data out
68	P54	I	DO IN for tuner
69	P53	O	OPEN
70	P52	I/O	RDS serial clock in
71	P51	I	OPEN
72	P50	I/O	RDS serial data in
73	AVSS		GND [H : ON]
74	VREF		+ 5V
75	P65	I	OPEN [H : RDS]
76	P64	O	TMUTE for tuner [L : ON]
77	P63	I	/ST for tuner [L : stereo]
78	P62	O	CE TUN for tuner
79	P77	I	METER IN
80	P76	O	OPEN

## ■ DISPLAY DATA

● V1 : 13-BT-140GK (VT668600)

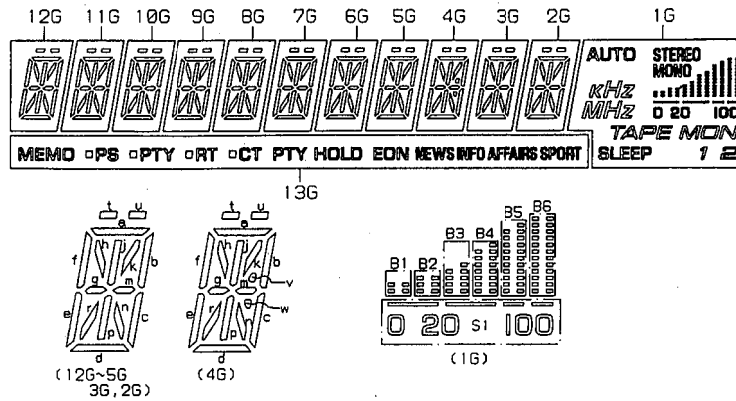


### • PIN CONNECTION

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
CONNECTION	F1	F1	NP	NP	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NX
PIN NO.	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
CONNECTION	NX	NX	NX	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	NP	NP	F2	F2	

NOTE 1) F1, F2 ..... Filament  
 2) NP ..... No pin  
 3) NC ..... No connection  
 4) NX ..... No extend pin  
 5) P1~P16 ..... Datum Line  
 6) 1G~13G .... Grid

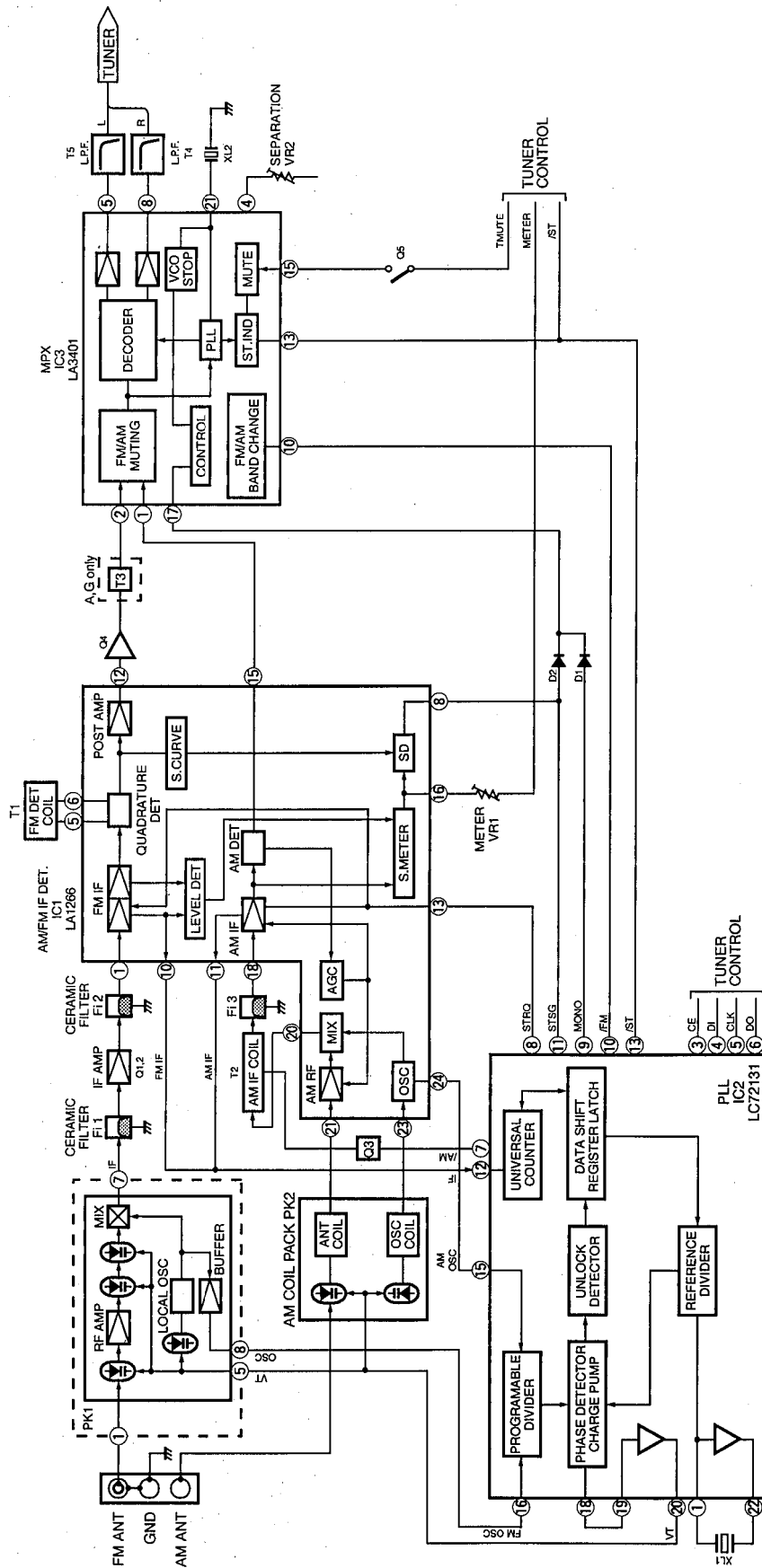
### • GRID ASSIGNMENT



### • ANODE CONNECTION

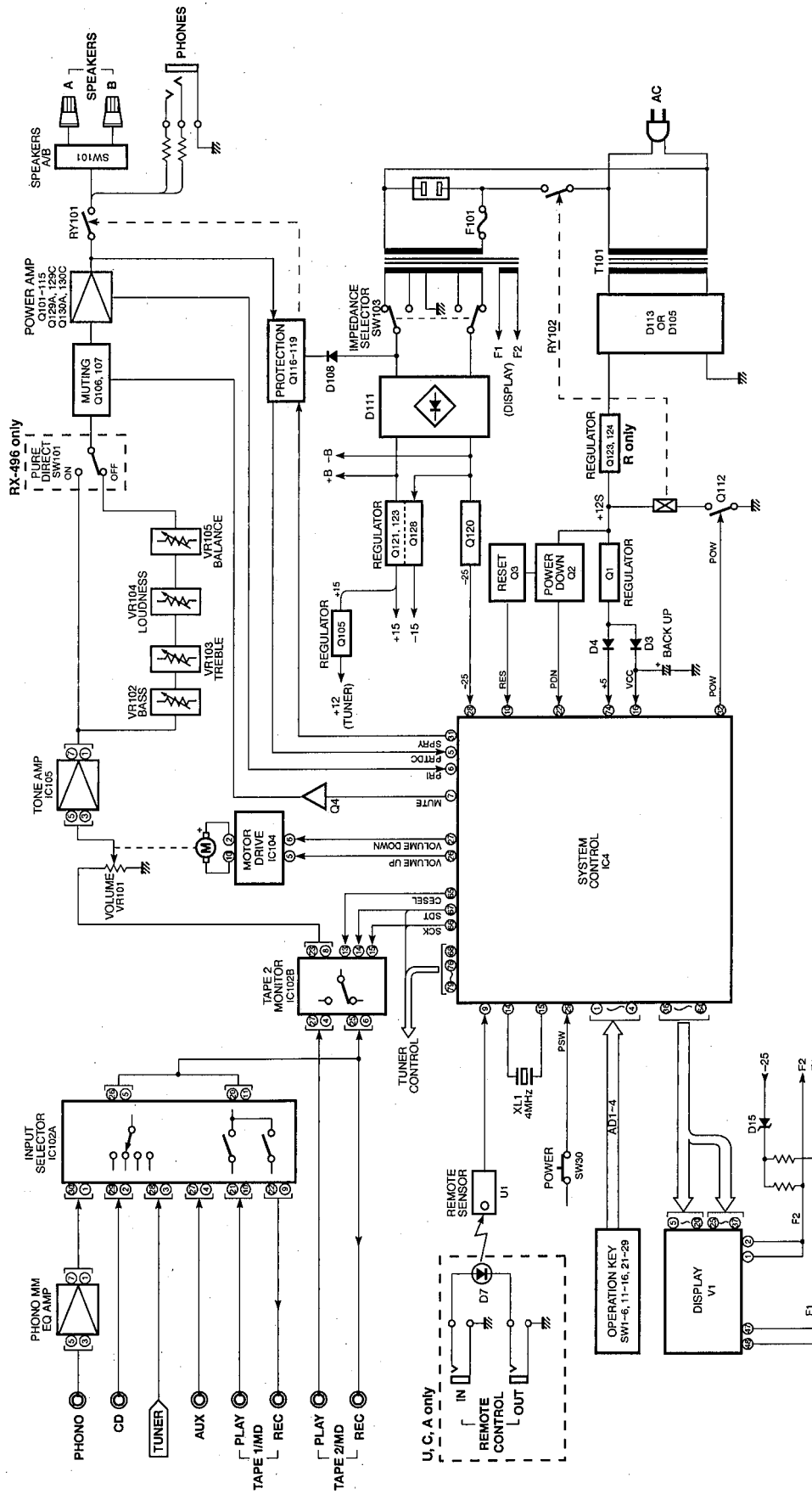
	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	SPORT	a	a	a	a	a	a	a	a	a	a	a	AUTO
P2	AFFAIRS	b	b	b	b	b	b	b	b	b	b	b	kHz
P3	INFO	c	c	c	c	c	c	c	c	c	c	c	MHz
P4	NEWS	d	d	d	d	d	d	d	d	d	d	d	STEREO
P5	EON	e	e	e	e	e	e	e	e	e	e	e	MONO
P6	PTY HOLD	f	f	f	f	f	f	f	f	f	f	f	B1
P7	CT	g	g	g	g	g	g	g	g	g	g	g	B2
P8	<input type="checkbox"/> (CT)	h	h	h	h	h	h	h	h	h	h	h	B3
P9	RT	j	j	j	j	j	j	j	j	j	j	j	B4
P10	<input type="checkbox"/> (RT)	k	k	k	k	k	k	k	k	k	k	k	B5
P11	RTY	m	m	m	m	m	m	m	m	m	m	m	B6
P12	<input type="checkbox"/> (RTY)	n	n	n	n	n	n	n	n	n	n	n	S1
P13	PS	p	p	p	p	p	p	p	p	p	p	p	TAPE MON
P14	<input type="checkbox"/> (RS)	r	r	r	r	r	r	r	r	r	r	r	1
P15	MEMO	t, u	t, u	t, u	t, u	t, u	t, u	t, u	t, u	t, u	t, u	t, u	2
P16	—	—	—	—	—	—	—	—	—	v, w	—	—	SLEEP

# ■ BLOCK DIAGRAM



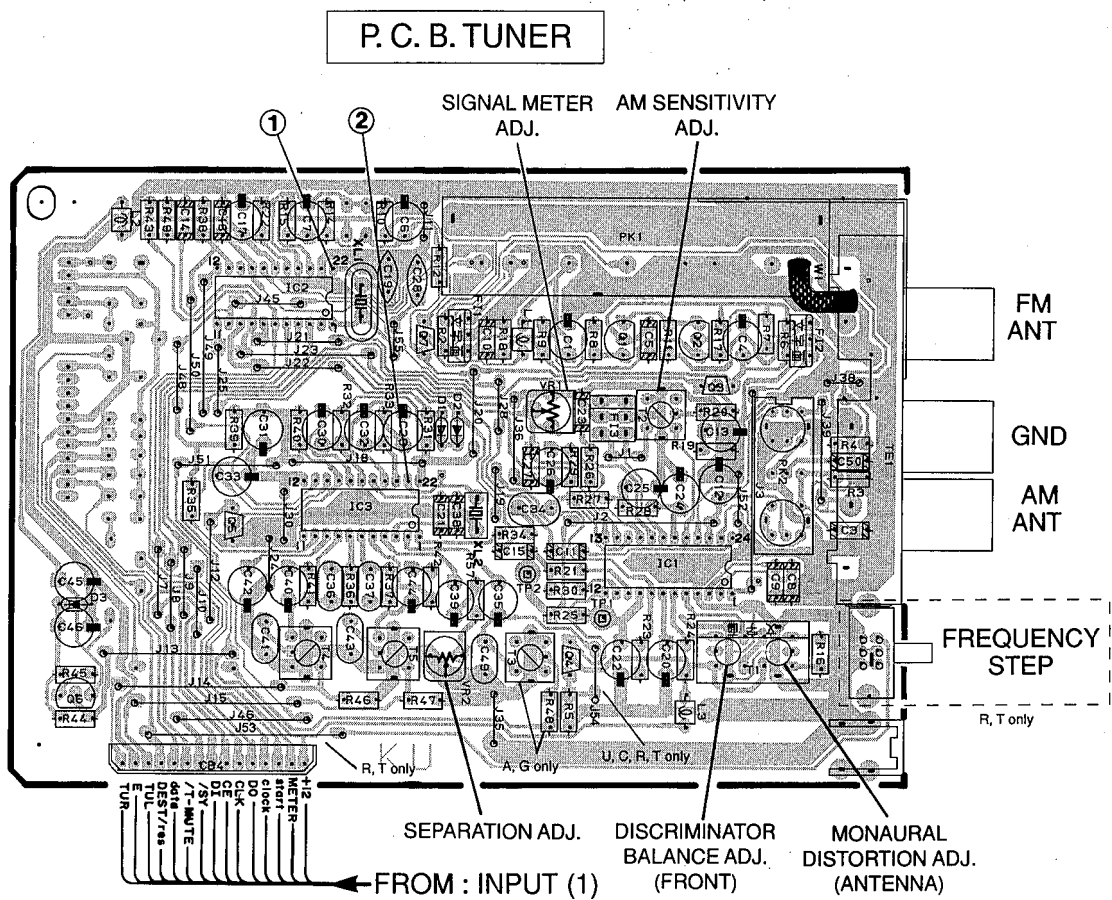
RX-396/496

# ■ BLOCK DIAGRAM

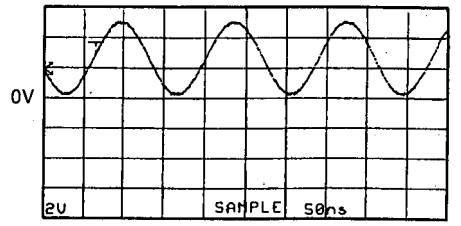


RX-396/496

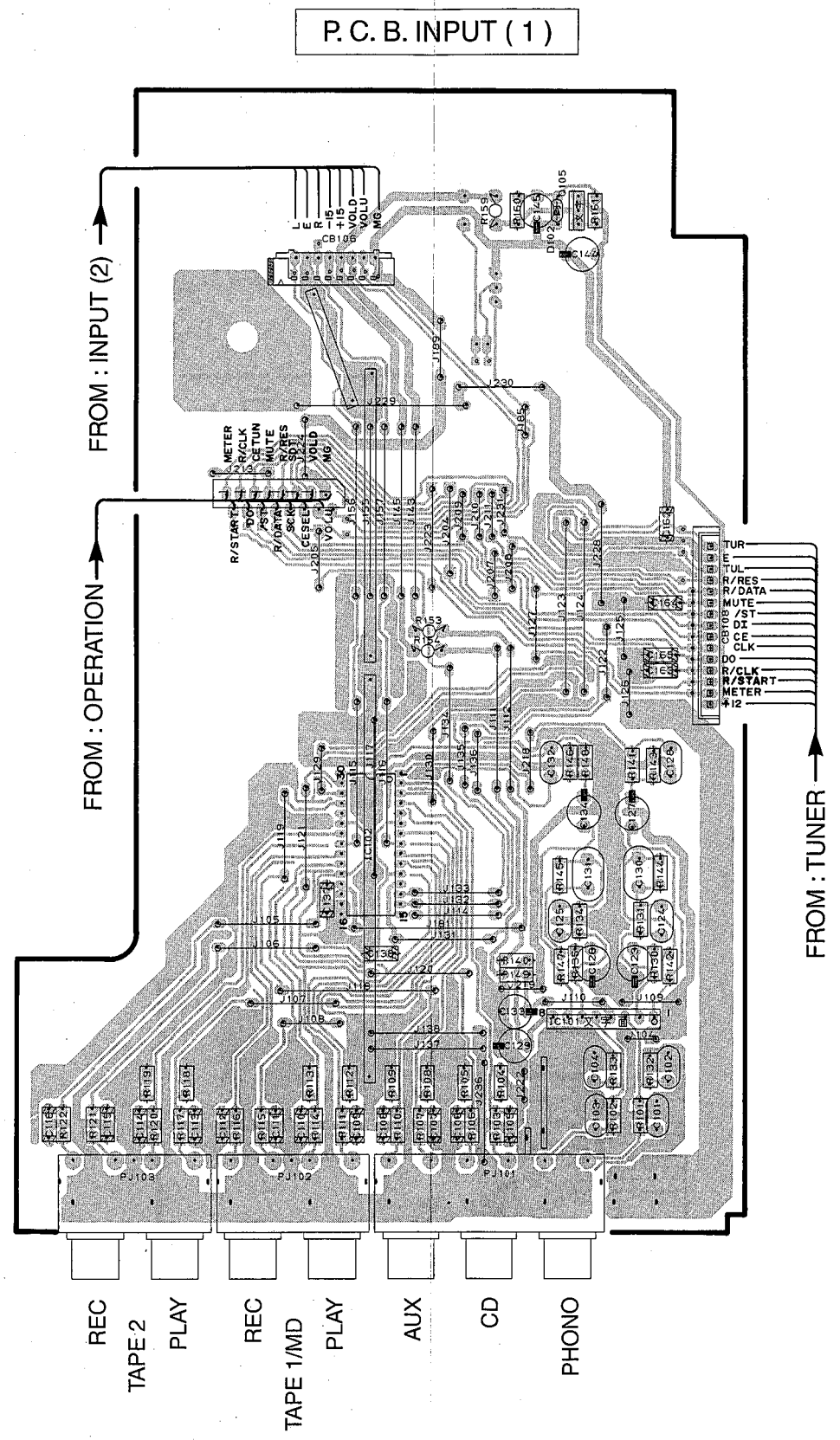
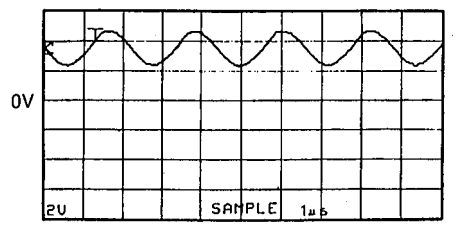
**■ RX-396 PRINTED CIRCUIT BOARD (Foil side)**



**Point ① (Pin22 of IC2) FM reception**  
 V : 2V/div H : 50 nsec/div  
 DC range 1 : 1 probe



**Point ② (Pin21 of IC3)**  
 V : 2V/div H : 1 μsec/div  
 DC range 1 : 1 probe



1  
2  
3  
4  
5  
6

■ RX-396 PRINTED CIRCUIT BOARD (Foil side)

1

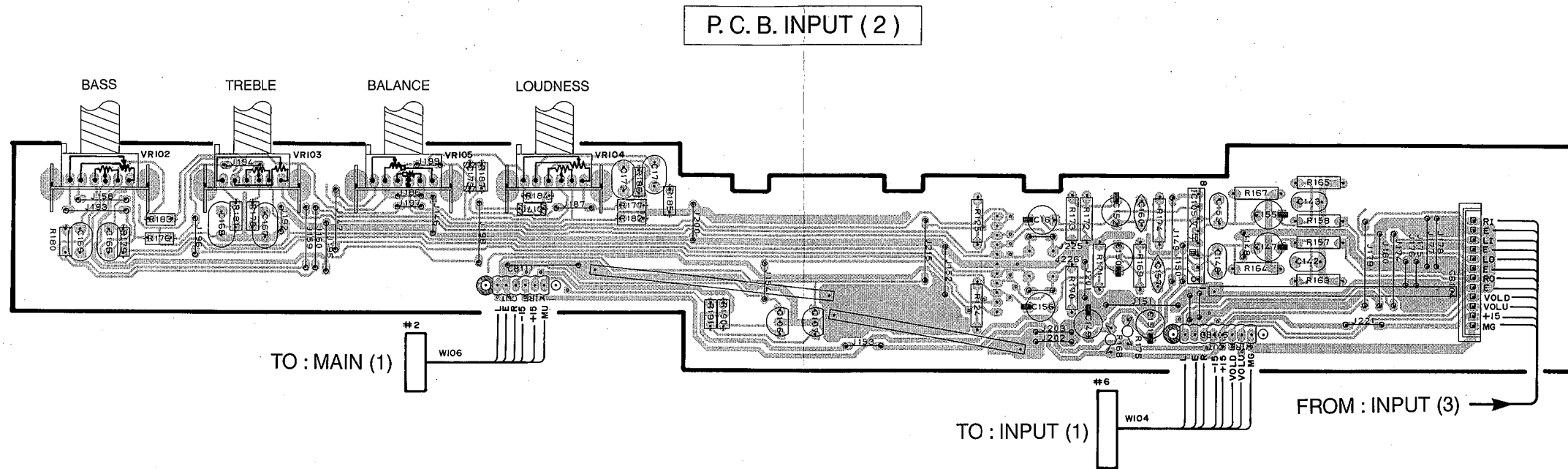
2

3

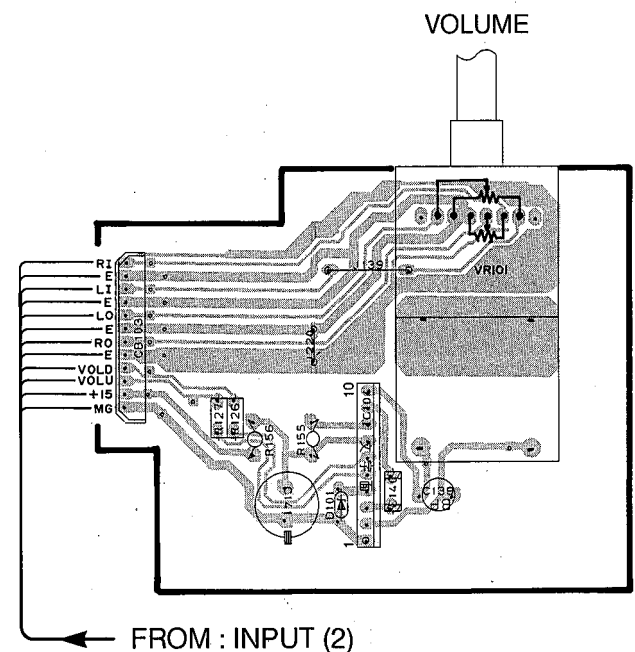
4

5

6

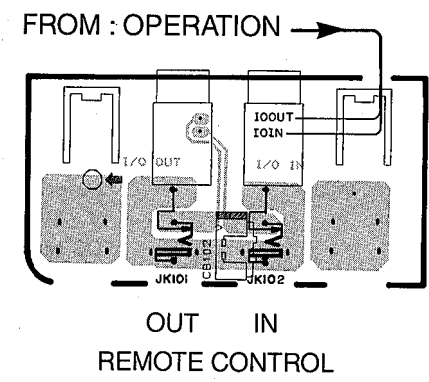


P.C.B. INPUT (3)



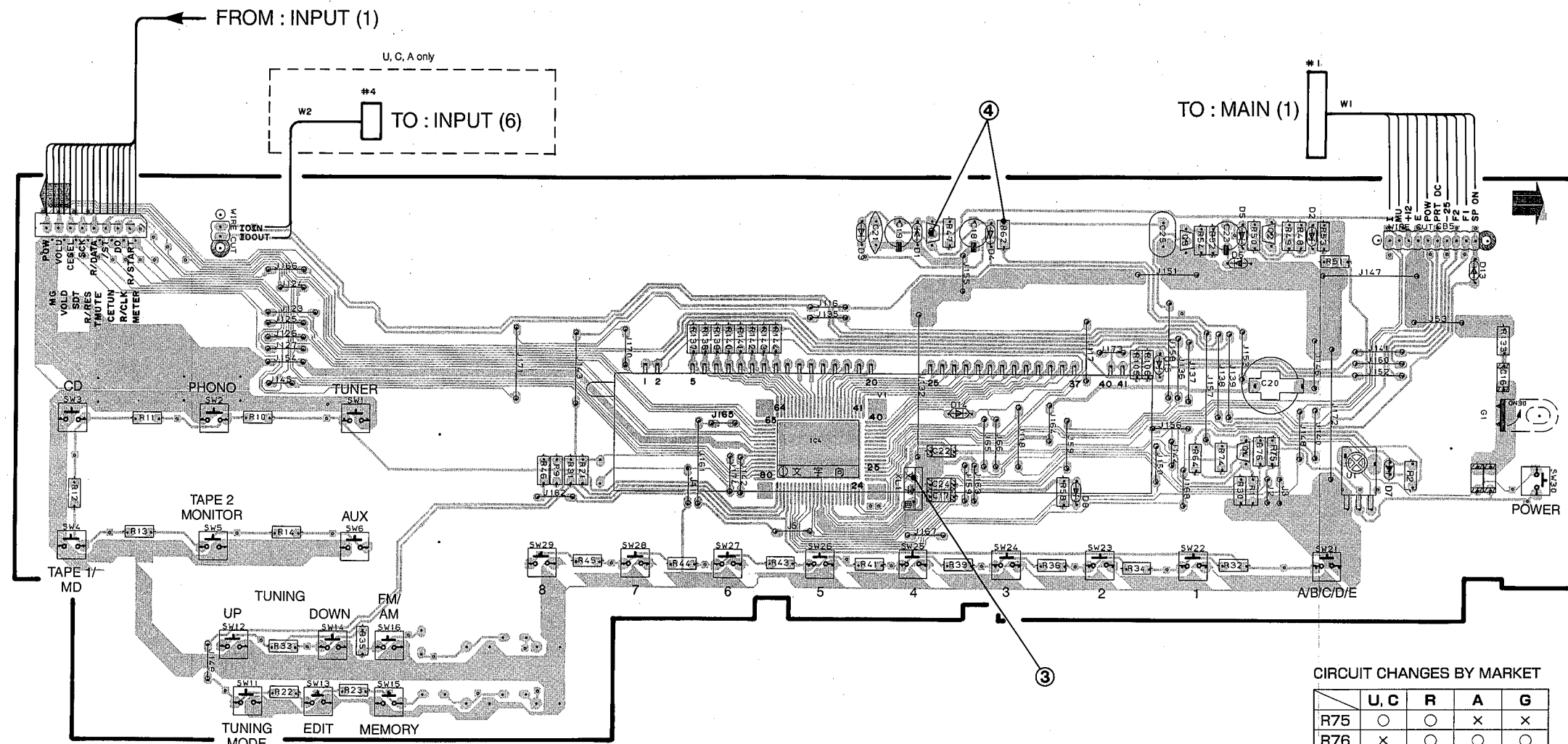
● U, C, A only

P.C.B. INPUT (6)



**■ RX-396 PRINTED CIRCUIT BOARD (Foil side)**

**P. C. B. OPERATION**



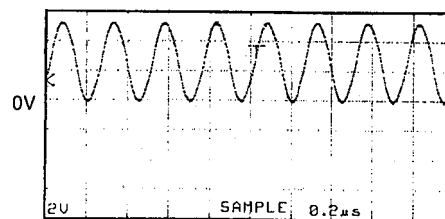
**CIRCUIT CHANGES BY MARKET**

	U, C	R	A	G
R75	○	○	x	x
R76	x	○	○	○
J2	x	x	○	○
J3	○	x	x	x
D7	○	x	○	x
D2	○	x	○	x
J5	x	○	x	x

○ : USED  
x : NOT USED

**Point ③ (Pin15 of IC4)**

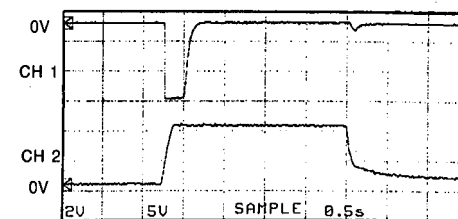
V : 2V/div H : 0.2 μsec/div  
DC range 1 : 1 probe



**Point ④**

CH1 : Collector of Q3 V : 2V/div (CH1)  
CH2 : Collector of Q1 V : 5V/div (CH2)

H : 0.5 sec/div DC range 1 : 1 probe  
(This waveform is not available by pushing the power switch ON and OFF.)

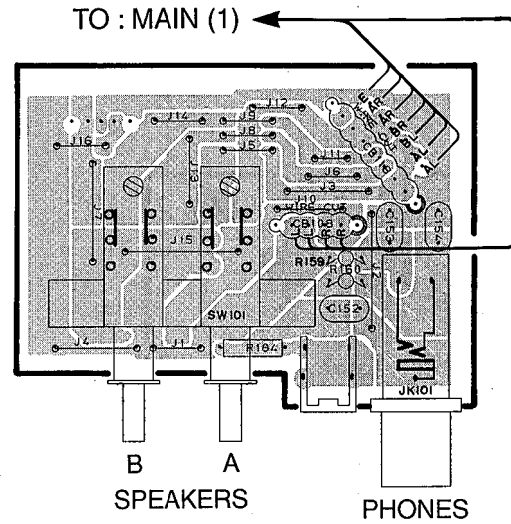


With the POWER ON, disconnect the A/C power cord. Reconnect the A/C power cord and the above waveforms will start.

Disconnect the power cord from the AC outlet.

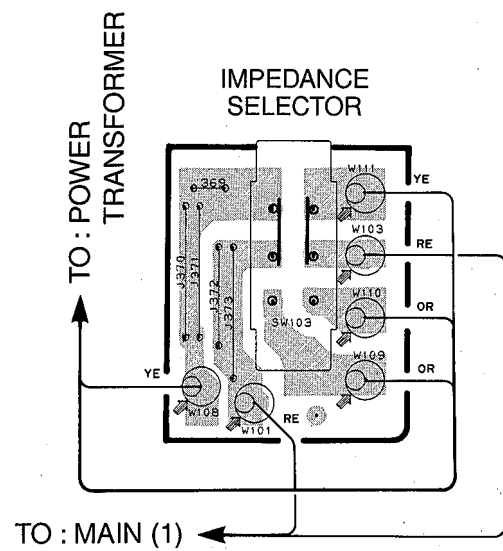
**RX-396 PRINTED CIRCUIT BOARD (Foil side)**

P. C. B. MAIN ( 3 )

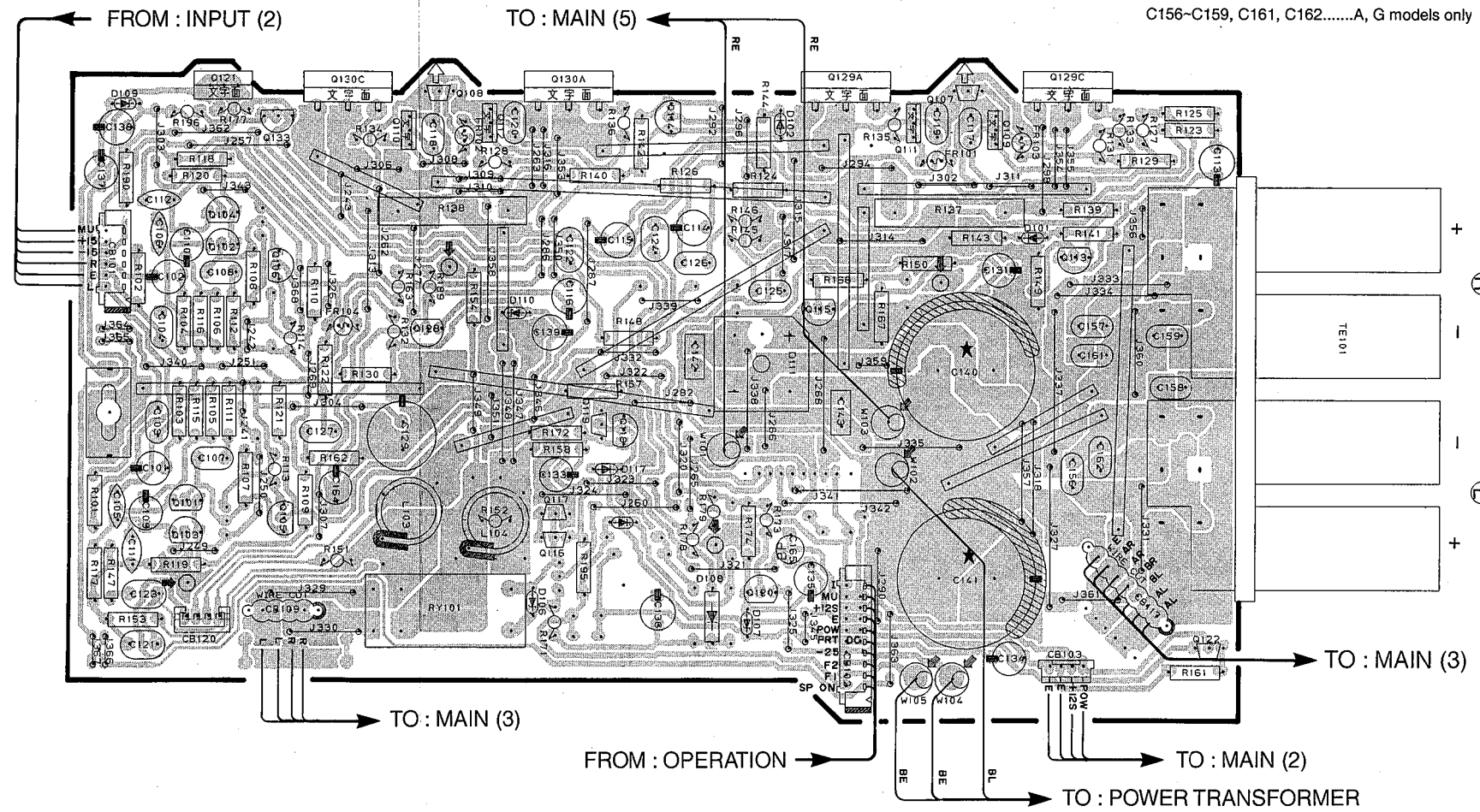


Note)  
C152-C154, R184.....A, G models only

P. C. B. MAIN ( 5 )



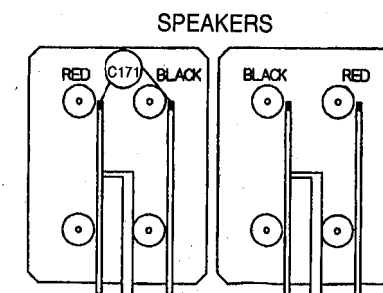
P. C. B. MAIN ( 1 )



Note)  
C156-C159, C161, C162.....A, G models only

SPEAKERS

Note) Mounting of C171 shown as below. (A, G models only)



1

2

3

4

5

6

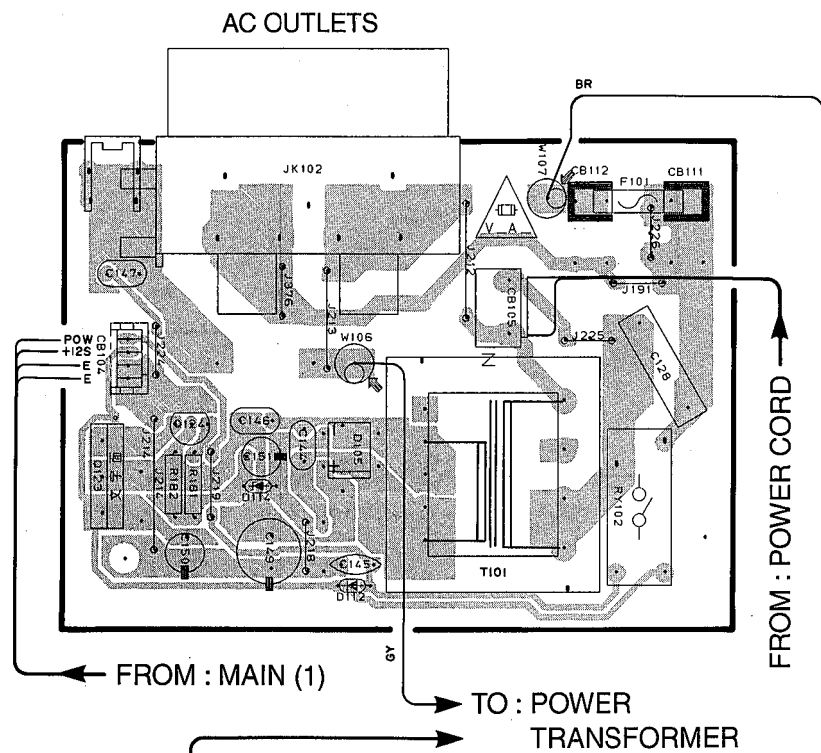


**■ RX-396 PRINTED CIRCUIT BOARD (Foil side)**

1

● R model

P.C.B. MAIN (2)

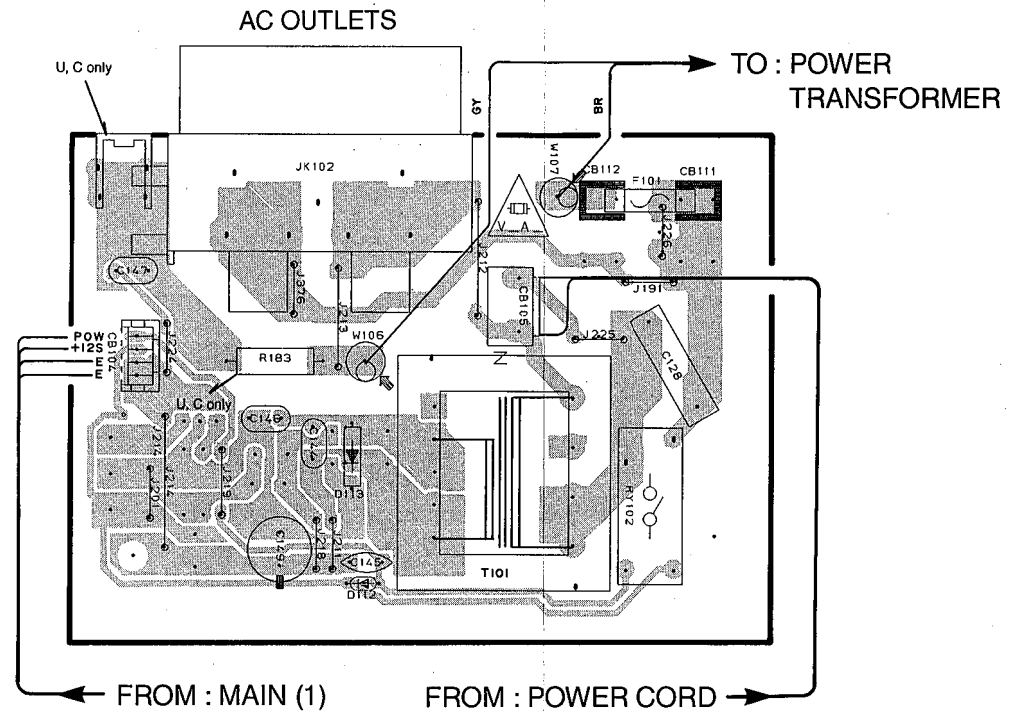


2

3

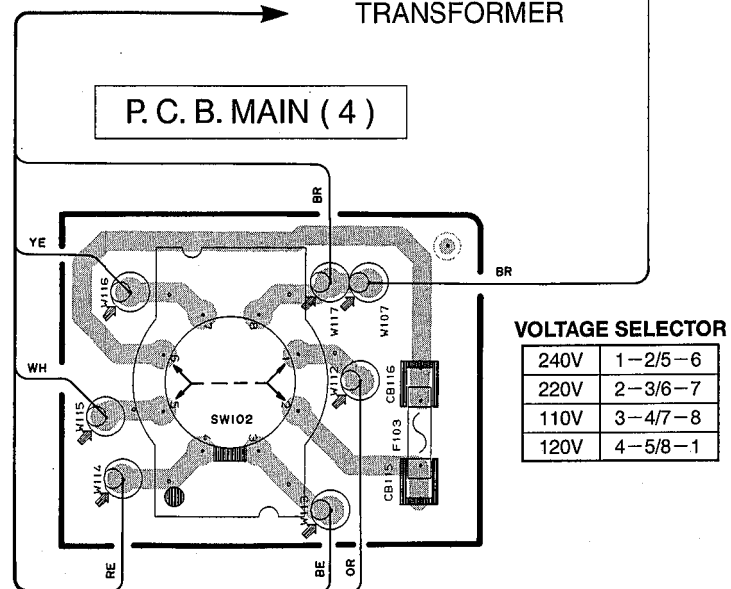
● U, C, A models

P.C.B. MAIN (2)



4

P.C.B. MAIN (4)



VOLTAGE SELECTOR

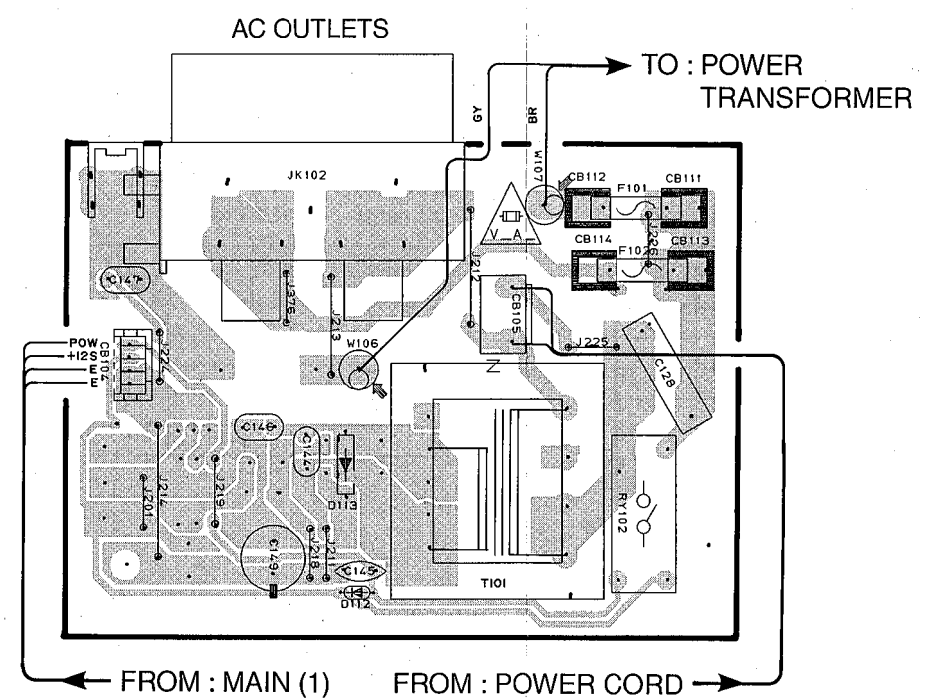
240V	1-2/5-6
220V	2-3/6-7
110V	3-4/7-8
120V	4-5/8-1

5

6

● G model

P.C.B. MAIN (2)



■ RX-496 PRINTED CIRCUIT BOARD (Foil side)

1

2

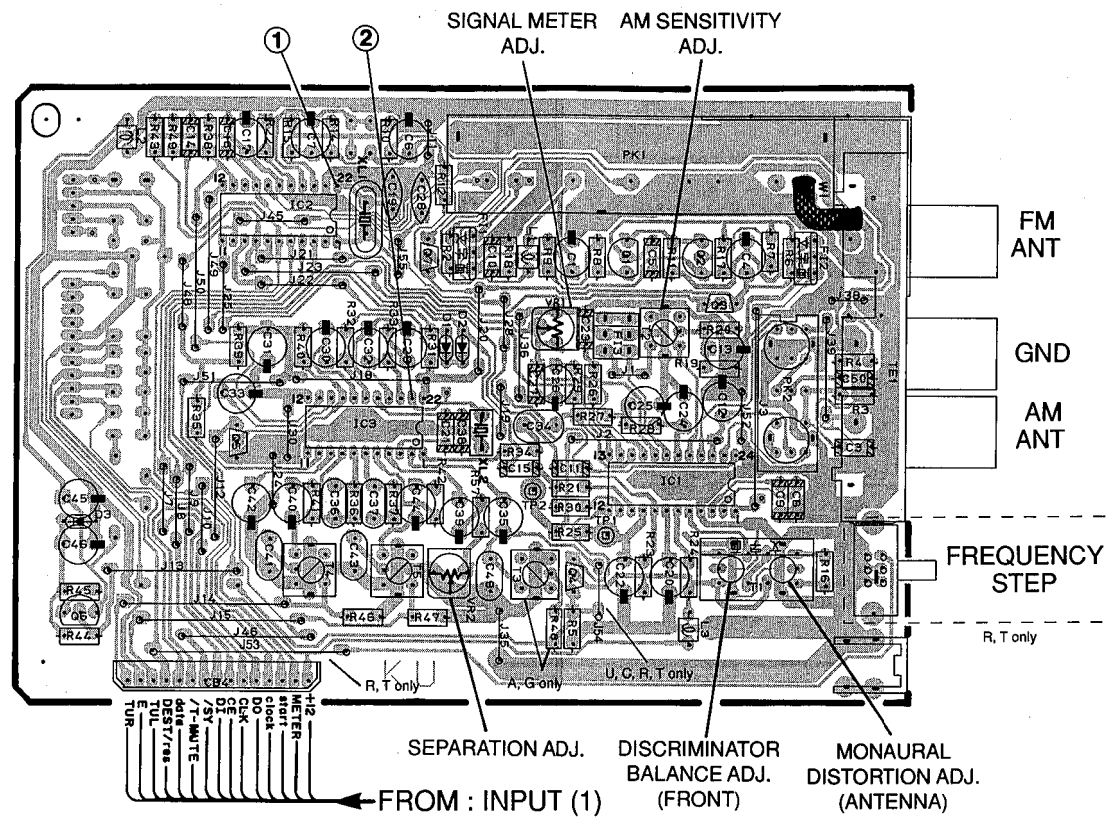
3

4

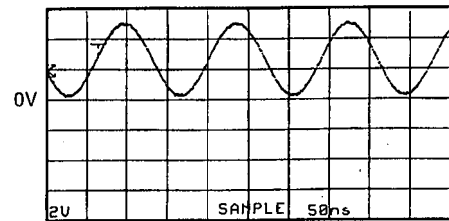
5

6

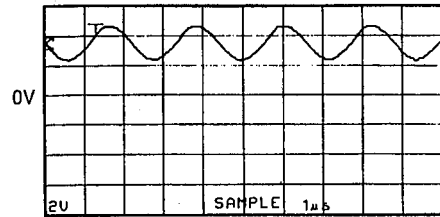
P. C. B. TUNER



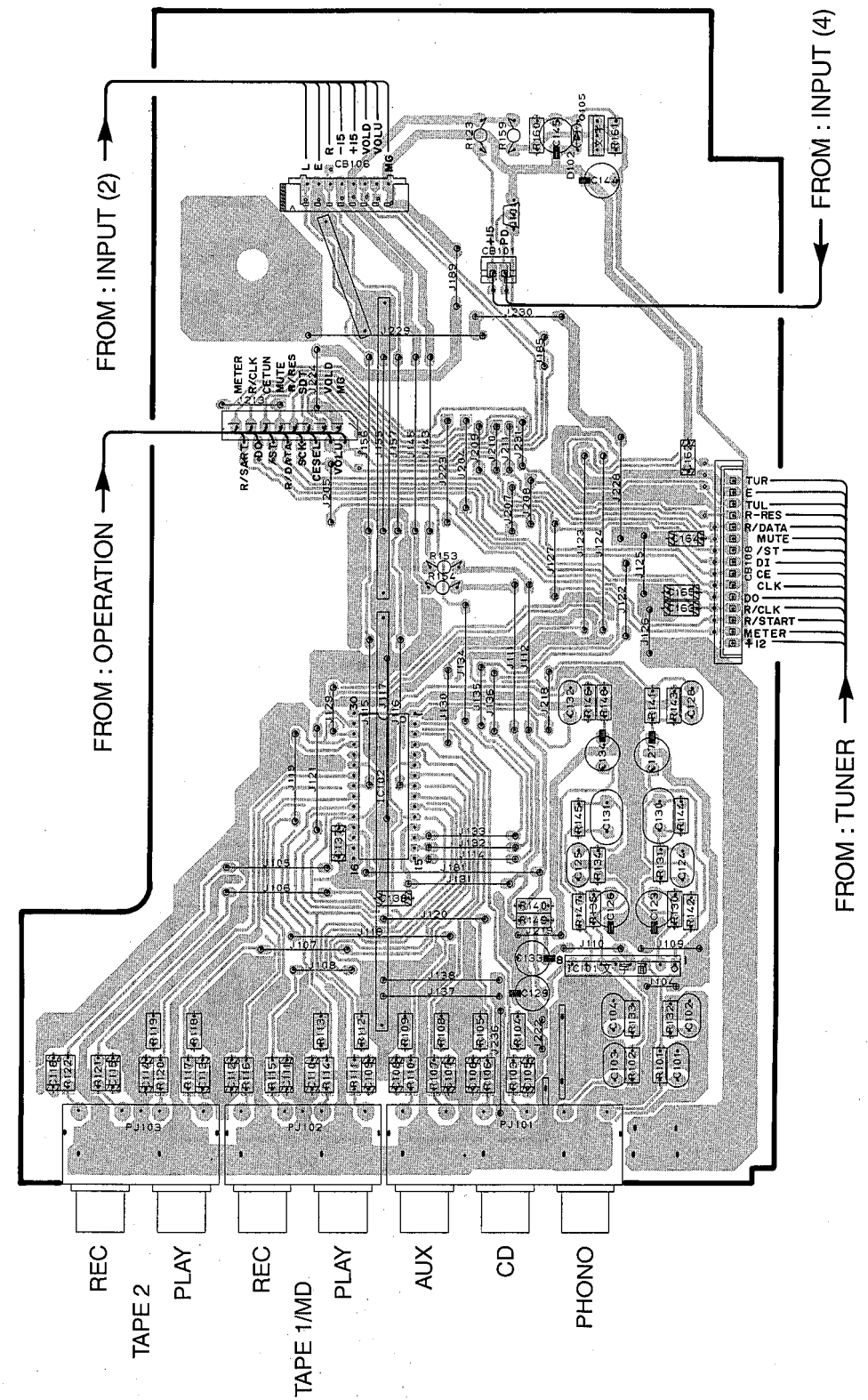
Point ① (Pin22 of IC2) FM reception  
 V : 2V/div H : 50 nsec/div  
 DC range 1 : 1 probe



Point ② (Pin21 of IC3)  
 V : 2V/div H : 1 μsec/div  
 DC range 1 : 1 probe

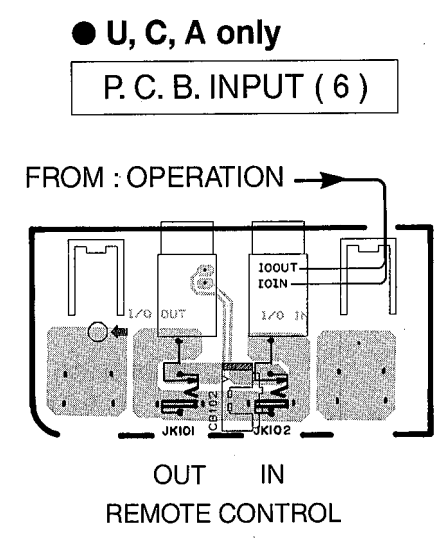
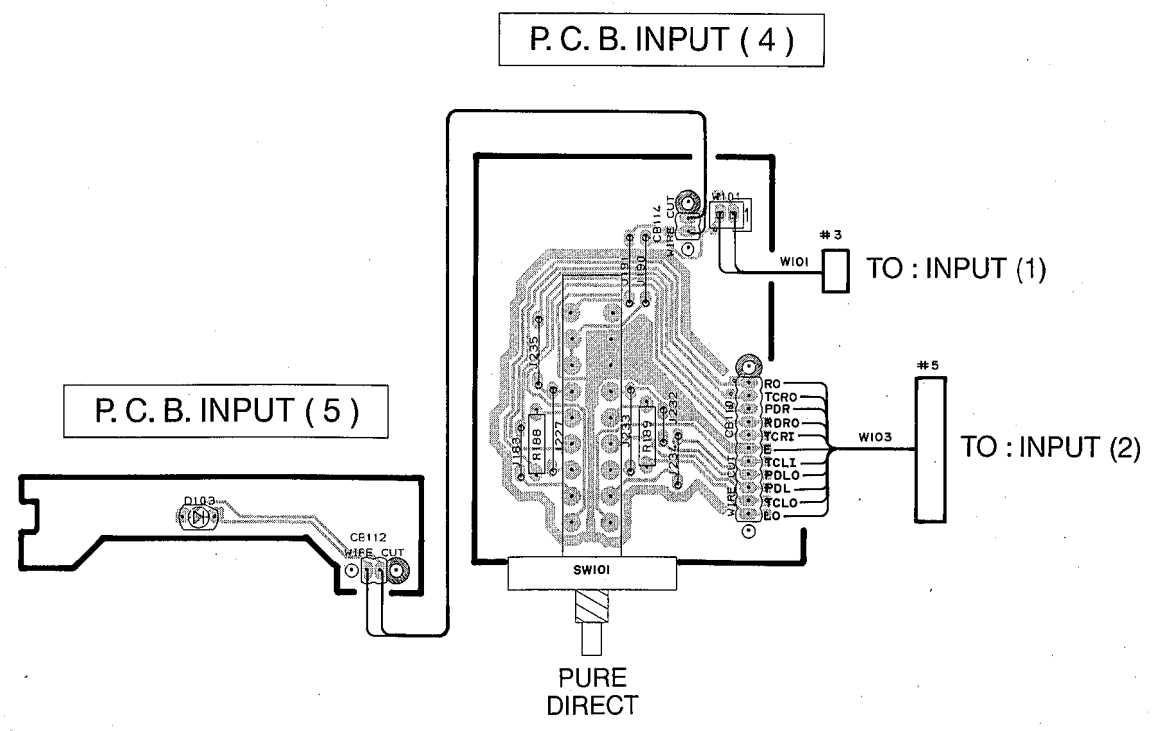
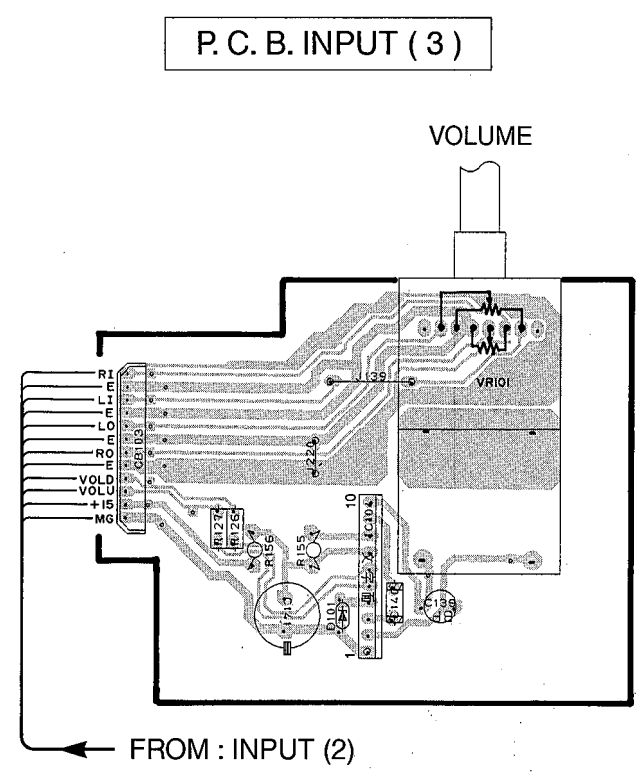
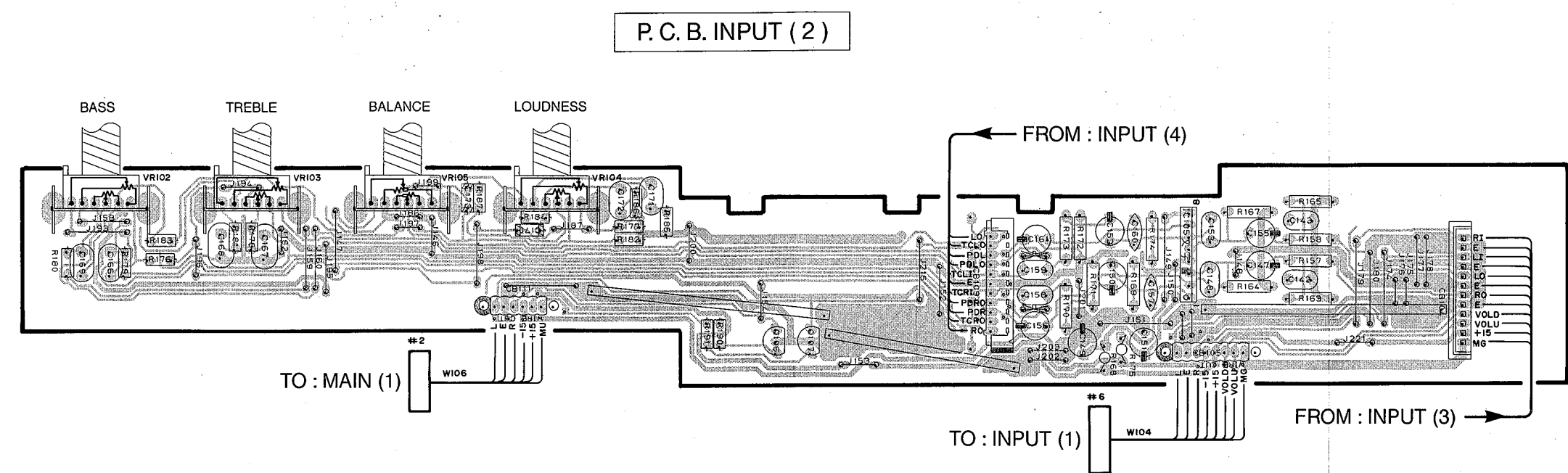


P. C. B. INPUT (1)



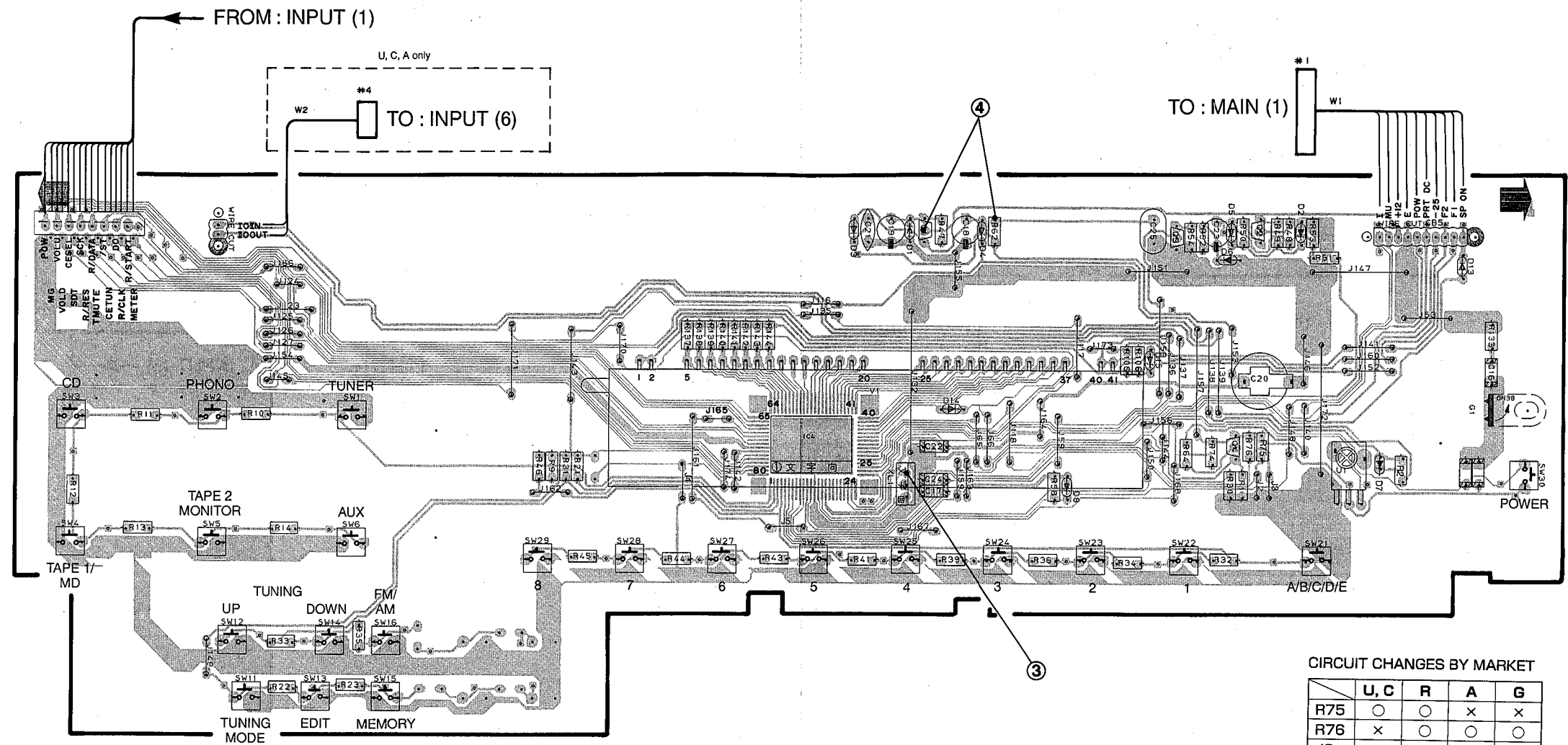
- REC TAPE 2
- PLAY
- REC TAPE 1/MD
- PLAY
- AUX
- CD
- PHONO

**■ RX-496 PRINTED CIRCUIT BOARD (Foil side)**



**RX-496 PRINTED CIRCUIT BOARD (Foil side)**

**P. C. B. OPERATION**



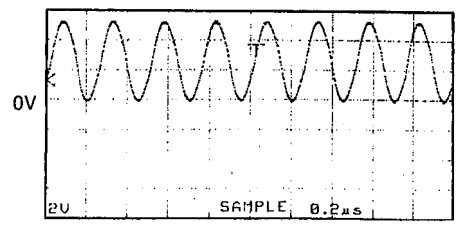
**CIRCUIT CHANGES BY MARKET**

	U, C	R	A	G
R75	○	○	×	×
R76	×	○	○	○
J2	×	×	○	○
J3	○	×	×	×
D7	○	×	○	×
R2	○	×	○	×
J5	×	○	×	×

○ : USED  
 × : NOT USED

**Point ③ (Pin15 of IC4)**

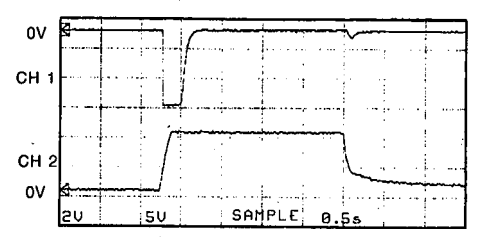
V : 2V/div H : 0.2 μsec/div  
 DC range 1 : 1 probe



**Point ④**

CH1 : Collector of Q3 V : 2V/div (CH1)  
 CH2 : Collector of Q1 V : 5V/div (CH2)

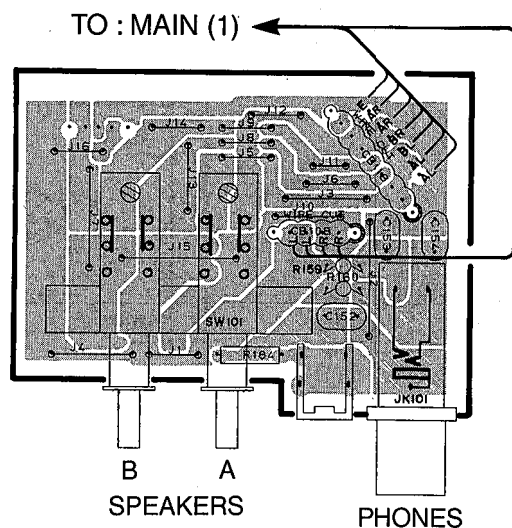
H : 0.5 sec/div DC range 1 : 1 probe  
 (This waveform is not available by pushing the power switch ON and OFF.)



↑ With the POWER ON, disconnect the A/C power cord. Reconnect the A/C power cord and the above waveforms will start.  
 ↑ Disconnect the power cord from the AC outlet.

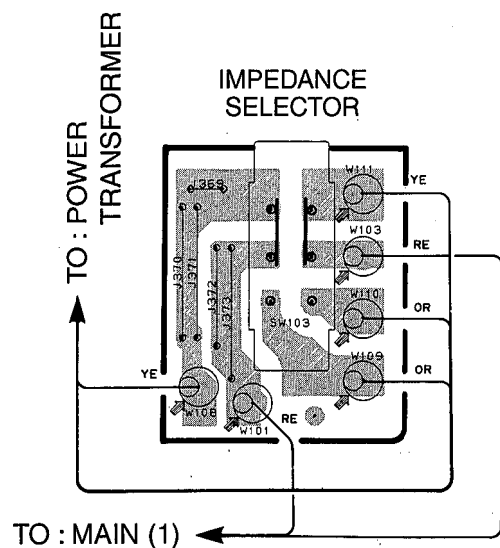
# RX-496 PRINTED CIRCUIT BOARD (Foil side)

P. C. B. MAIN ( 3 )

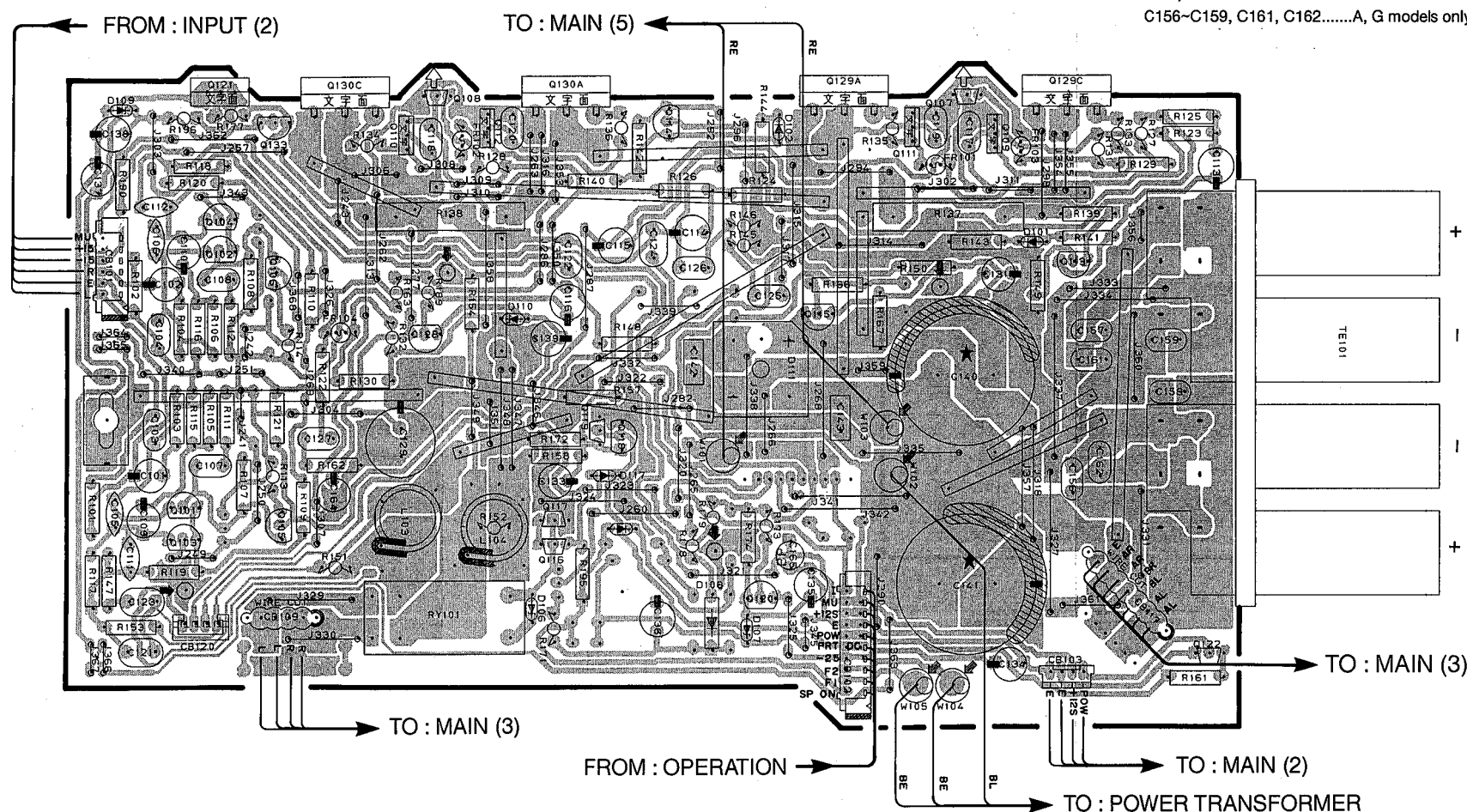


Note)  
C152~C154, R184.....A, G models only

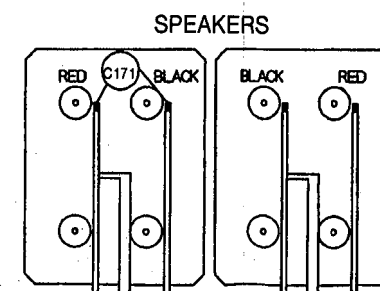
P. C. B. MAIN ( 5 )



P. C. B. MAIN ( 1 )



Note) Mounting of C171 shown as below. (A, G models only)



1

2

3

4

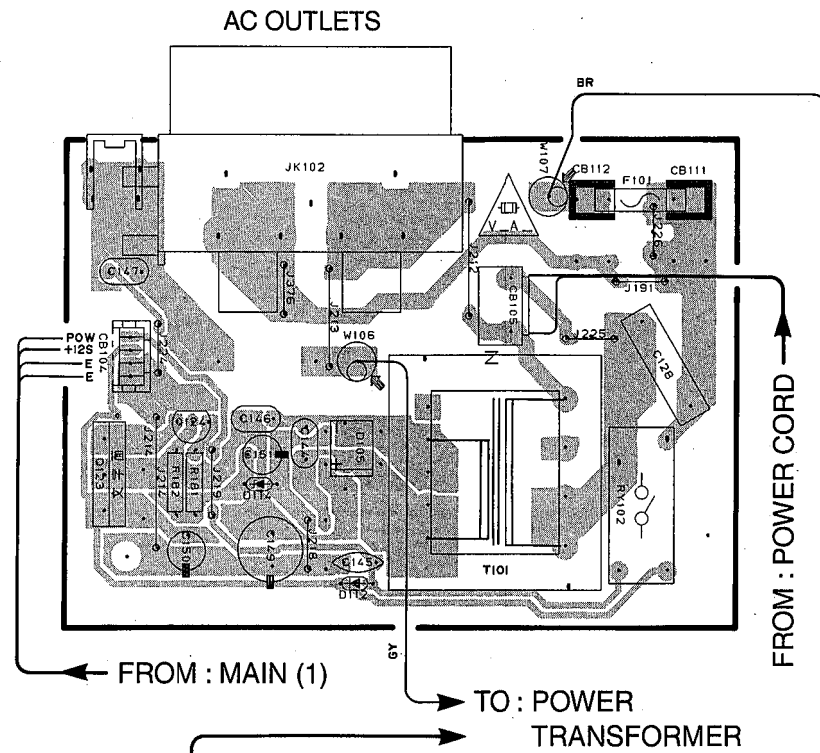
5

6

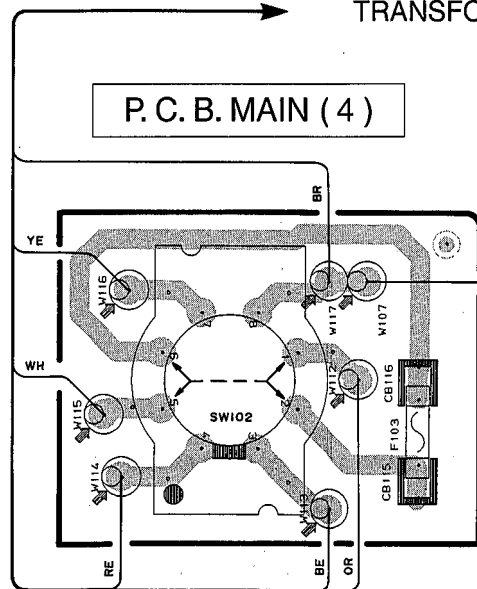
**■ RX-496 PRINTED CIRCUIT BOARD (Foil side)**

● R model

P. C. B. MAIN ( 2 )

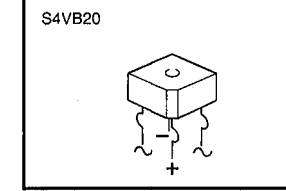
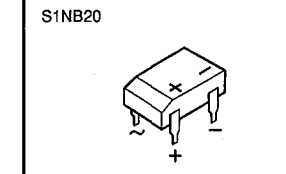
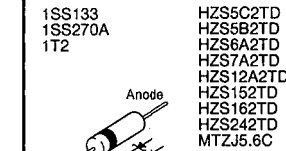


P. C. B. MAIN ( 4 )

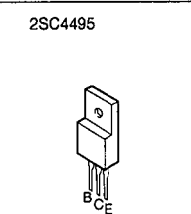
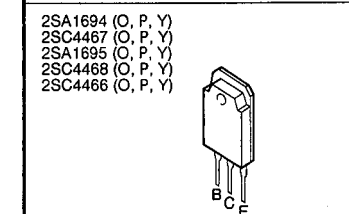
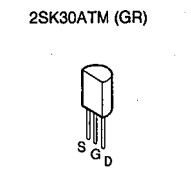
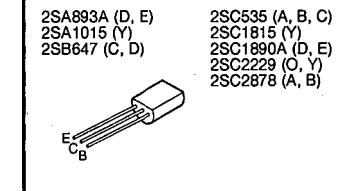
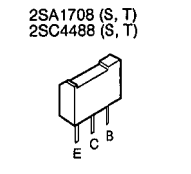
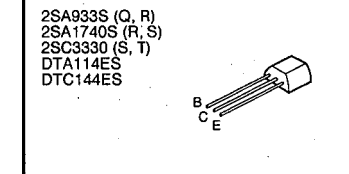


**■ PIN CONNECTION DIAGRAM**

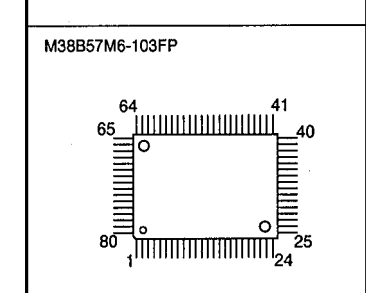
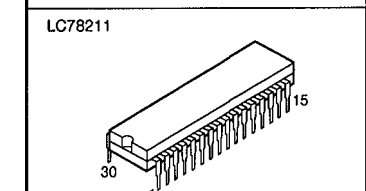
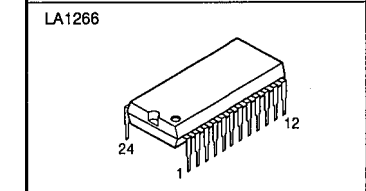
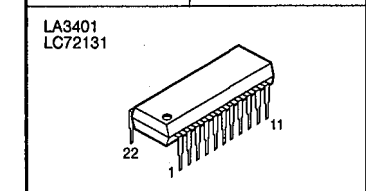
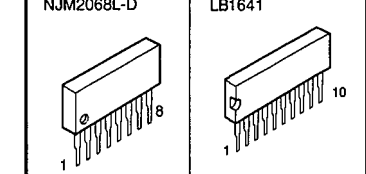
● Diodes



● Transistors

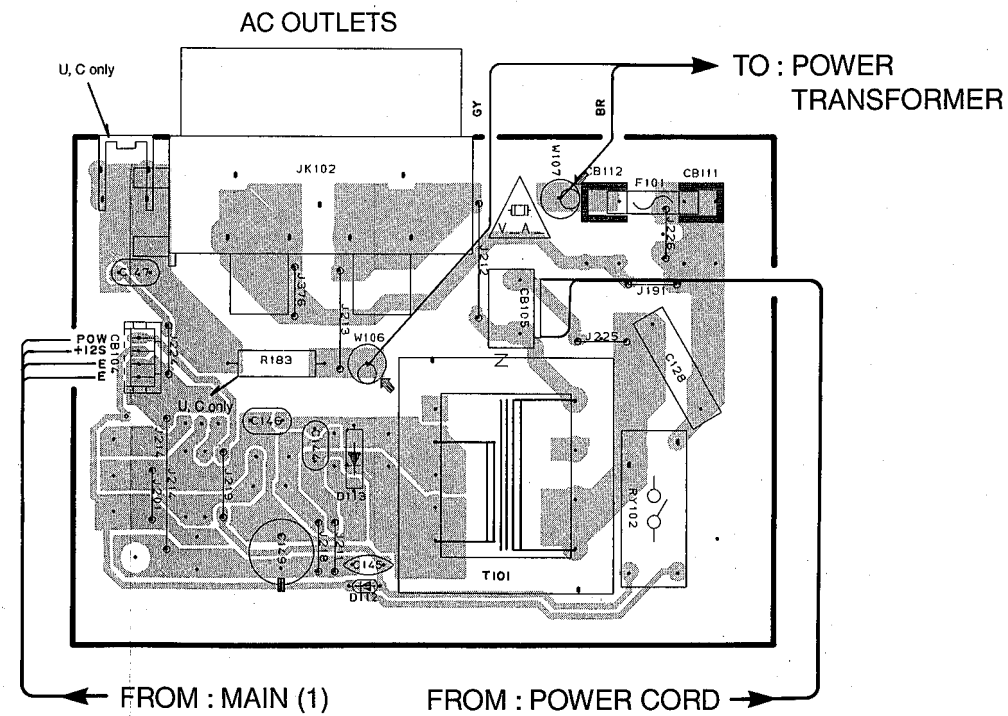


● ICs



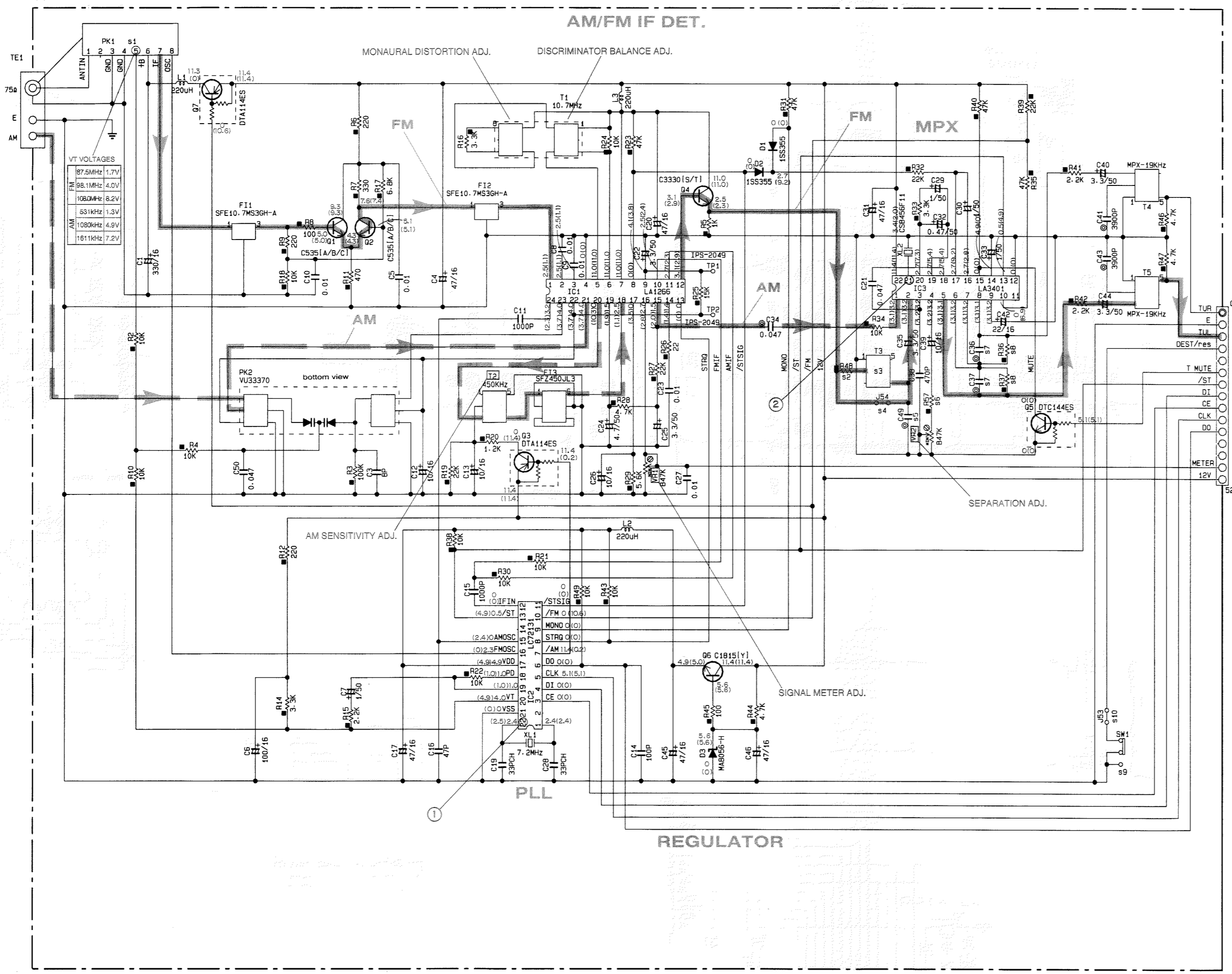
● U, C, A models

P. C. B. MAIN ( 2 )



# RX-396 SCHEMATIC DIAGRAM (TUNER)

Each voltage given here represents that in the FM (98.1MHz, STEREO) reception mode but the one in the parentheses ( ) is measured in the AM (1080kHz, MAN'L) reception mode.



CIRCUIT CHANGES BY MARKET.

	U. C	R	A. G
S1	PK1	VR24220	VR24220
S2	R48		VQ9B760
S3	T3		XYA2
S4	J54		
S5	C49		120P
S6	R57	22K	22K
S7	C36, 37	1000P	1000P
S8	R36, 37	75K	75K
S9	SW1		YS50260
S10	J53		

NOT USED  
USED

### CAPACITOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
⊚	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
⊖	MICA CAPACITOR
⊕	POLYPROPYLENE FILM CAPACITOR
⊙	SEMICONDUCTIVE CERAMIC CAPACITOR

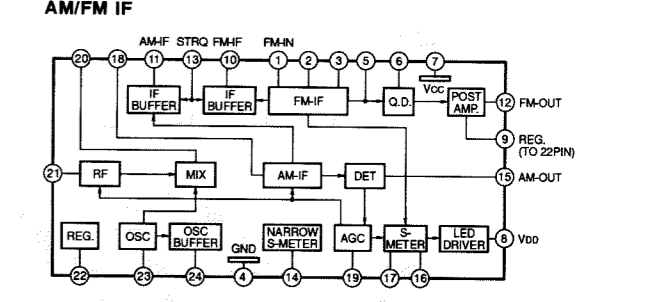
### RESISTOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
△	CARBON FILM RESISTOR (P=10)
⊚	METAL OXIDE FILM RESISTOR
⊖	METAL FILM RESISTOR
⊕	METAL PLATE RESISTOR
⊖	FIRE PROOF CARBON FILM RESISTOR
⊕	CEMENT MOLDED RESISTOR
⊙	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

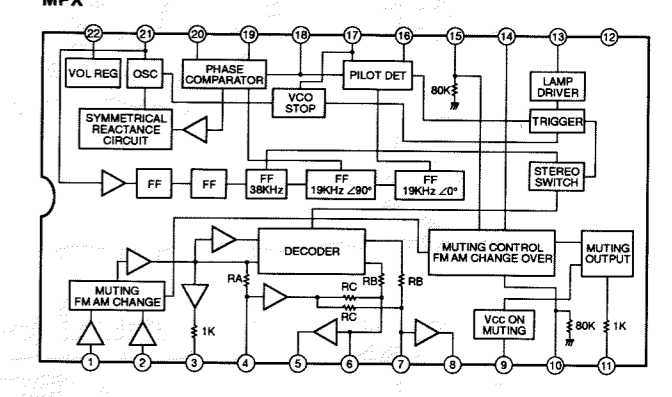
### NOTICE (model)

- (J)..... JAPANESE
- (U)..... U. S. A
- (C)..... CANADIAN
- (R)..... GENERAL
- (A)..... AUSTRALIAN
- (B)..... BRITISH
- (G)..... EUROPEAN
- (T)..... CHINA
- (L)..... SINGAPORE

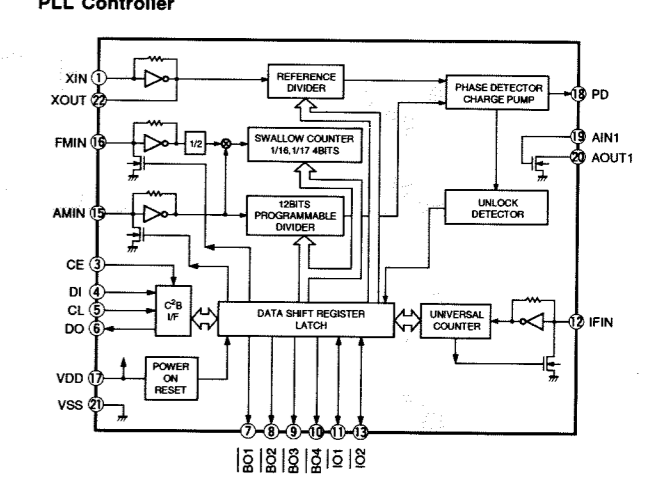
### IC1 : LA1286



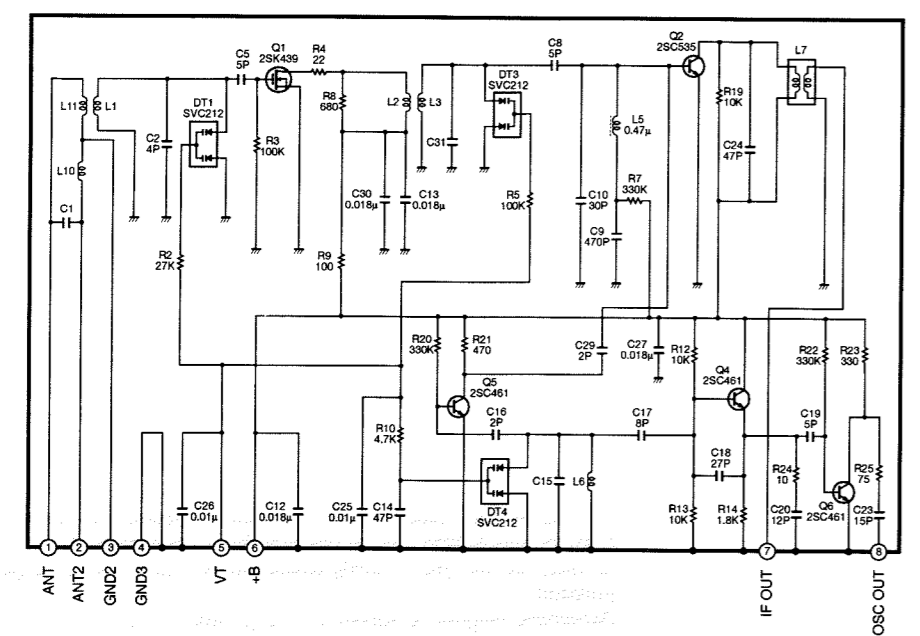
### IC3 : LA3401



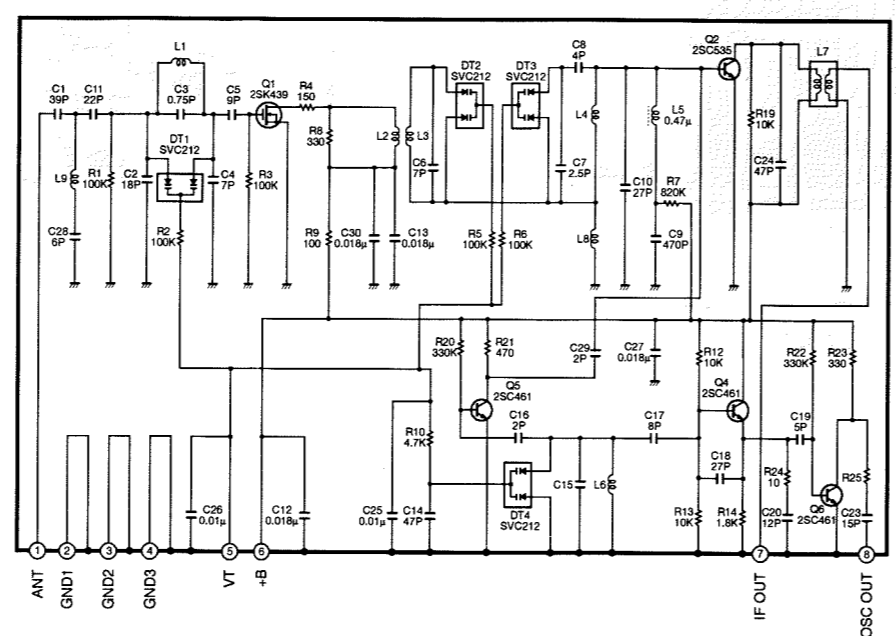
### IC2 : LC72131



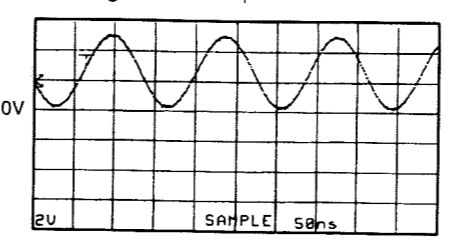
PK1 : ENV-17298G1 (VR24220) U, C, R models



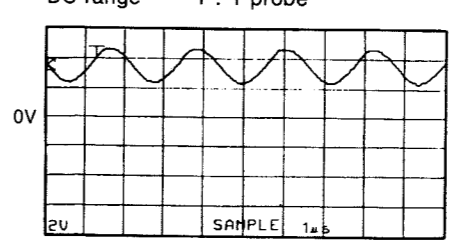
PK1 : ENV-17297G1 (VQ987600) A, G models



Point ① (Pin22 of IC2) FM reception  
V : 2V/div H : 50 nsec/div  
DC range 1 : 1 probe

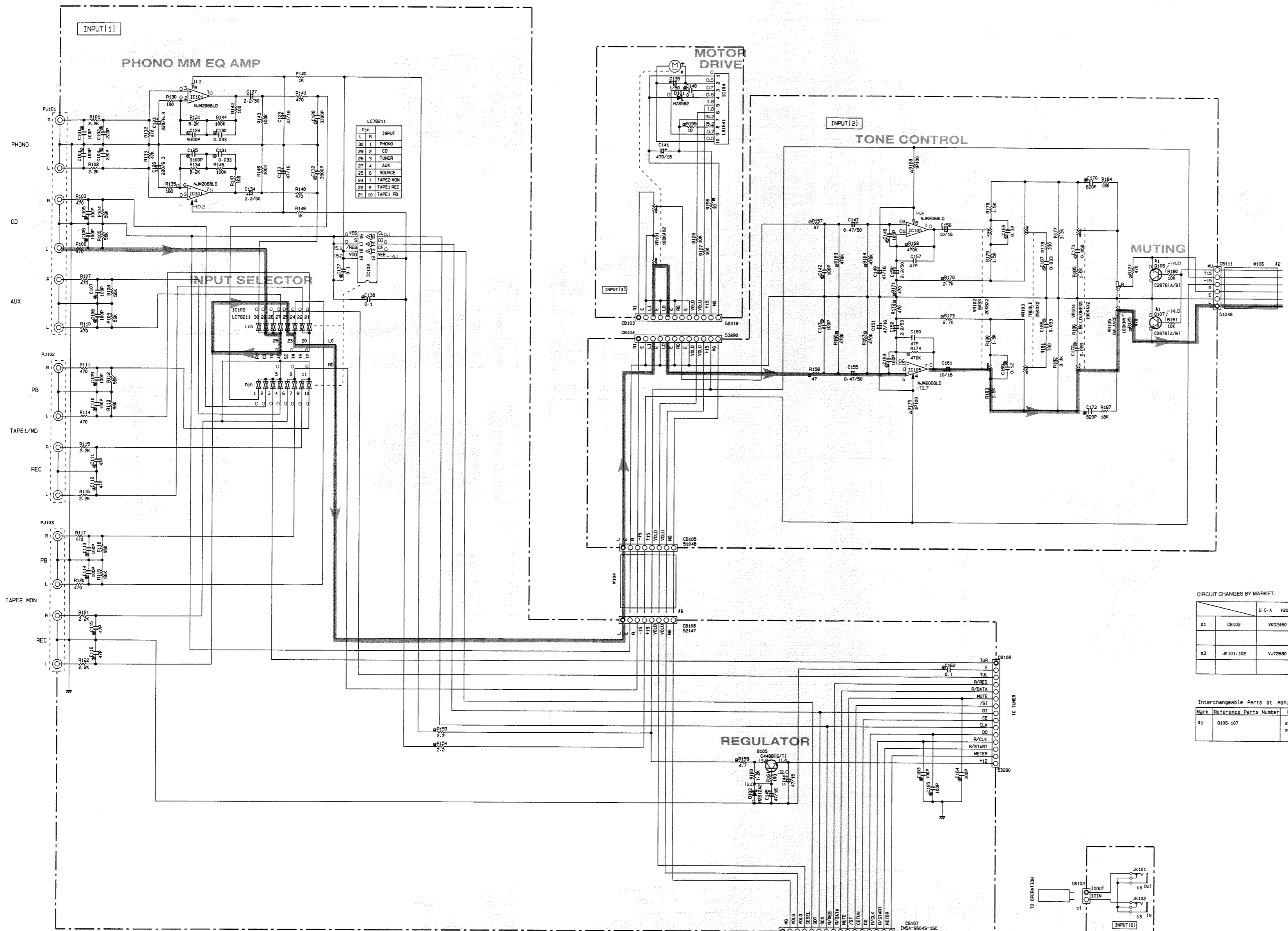


Point ② (Pin21 of IC3)  
V : 2V/div H : 1 μsec/div  
DC range 1 : 1 probe

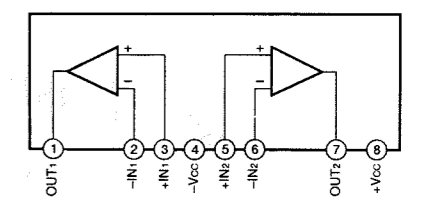


All voltages are measured with a 10MΩ/DC electric volt meter.  
Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.  
Schematic diagram is subject to change without notice.

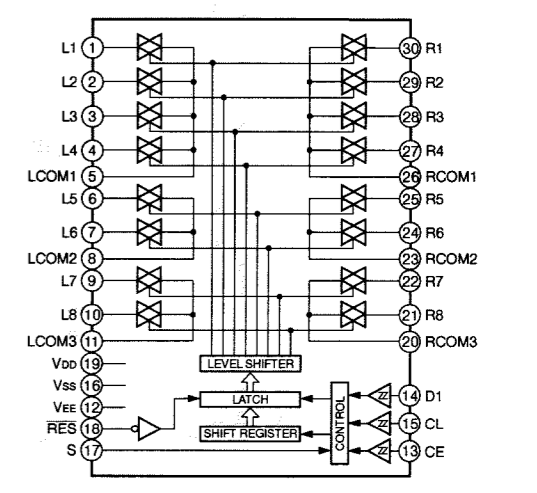
RX-396 SCHEMATIC DIAGRAM (INPUT)



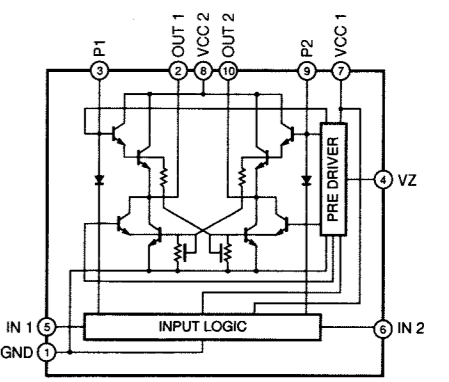
IC101, 105 : NJM2068L-D Dual OP-Amp



IC102 : LC78211 Analog Function Switch



IC104 : LB1641 Motor Driver



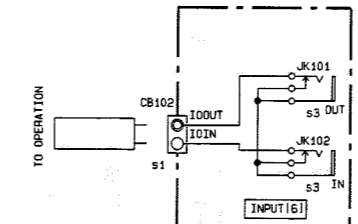
CIRCUIT CHANGES BY MARKET.

	U.C.A	Y205480	R.G	Y205490	Note
#1	CB102	W02460		X	2P52147
#3	JK101-102	VJ72680		X	PHONE-JACK

X: NOT USED

Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
#1	0106-107	25C28781A/B1 25D1915P(S/T1)

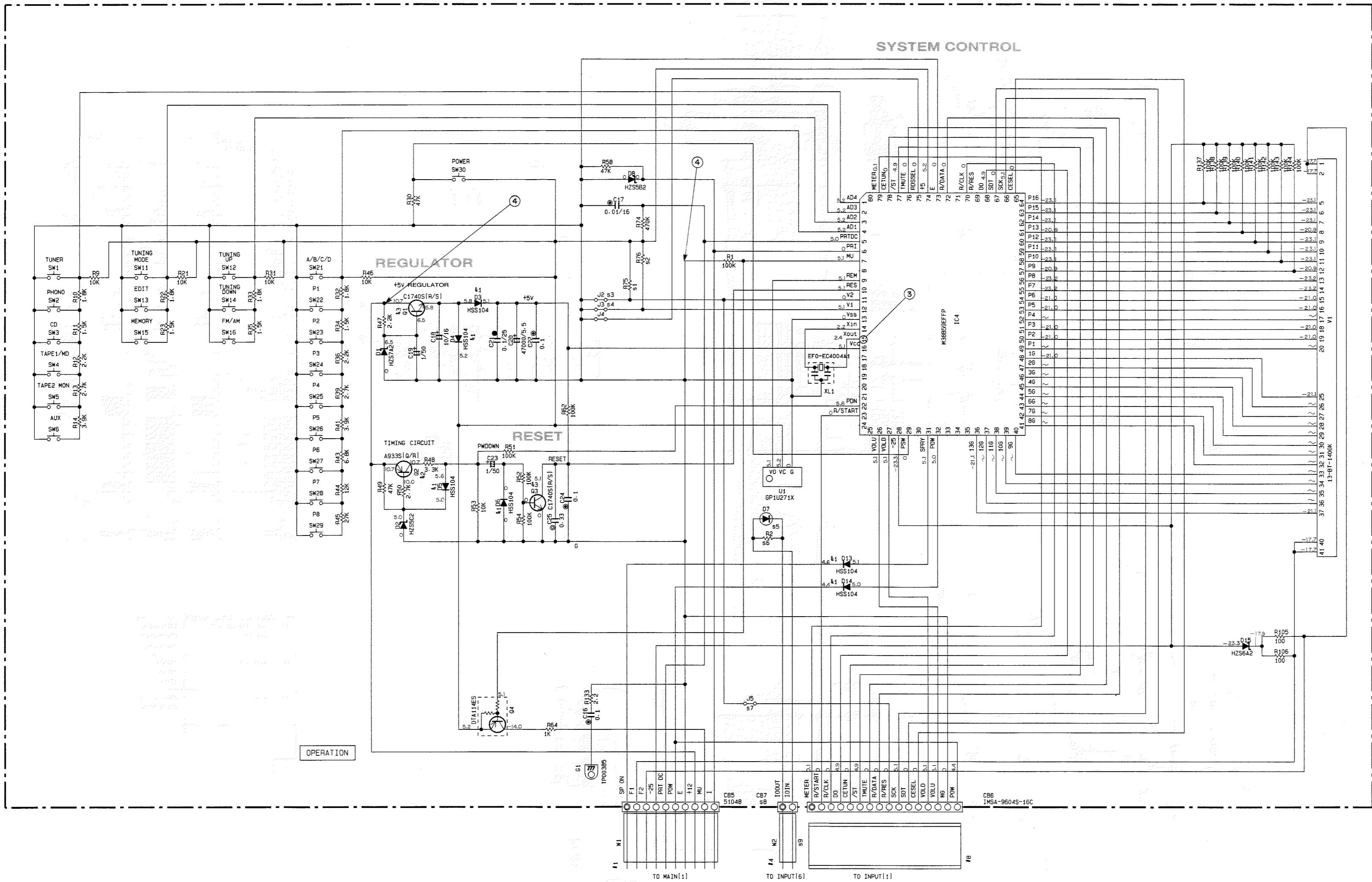


RESISTOR		CAPACITOR	
REMARKS	PARTS NAME	REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)	NO MARK	ELECTROLYTIC CAPACITOR
□	CARBON FILM RESISTOR (P=10)	⊗	TANTALUM CAPACITOR
△	METAL OXIDE FILM RESISTOR	⊙	CERAMIC CAPACITOR
▲	METAL FILM RESISTOR	⊖	CERAMIC TUBULAR CAPACITOR
⊖	METAL PLATE RESISTOR	⊕	POLYESTER FILM CAPACITOR
⊕	FIRE PROOF CARBON FILM RESISTOR	⊙	POLYSTYRENE FILM CAPACITOR
⊖	CEMENT MOLDED RESISTOR	⊖	MICA CAPACITOR
⊙	SEMI VARIABLE RESISTOR	⊕	POLYPROPYLENE FILM CAPACITOR
■	CHIP RESISTOR	●	SEMICONDUCTIVE CERAMIC CAPACITOR

\* All voltages are measured with a 10MΩ/DC electric volt meter.  
 \* Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.  
 \* Schematic diagram is subject to change without notice.



**RX-396 SCHEMATIC DIAGRAM (OPERATION)**



Interchangeable Parts at Manufacture-Stage

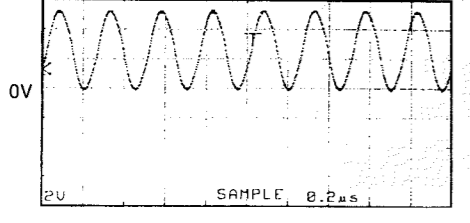
Mark	Reference Parts Number	Parts Name
41	D3-6-13-14	HSS104 1SS193 1SS176
42	02	2SA933S(G/R) 2SA1115(E/F) 2SA1305A(G/R/S)
43	01-3	2SC1745S(A/S) 2SC2603(E/F) 2SC3311A(G/R/S)

CIRCUIT CHANGES BY MARKET.

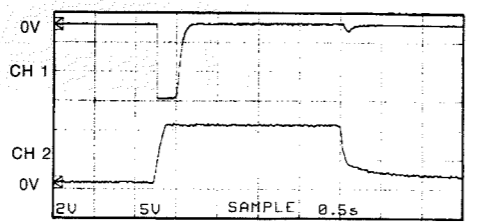
	U-C	V205440	R	V205450	A	V220750	G	V205460
s1	R75	100K	100K	×	×	×	×	×
s2	R76	×	100K	100K	100K	100K	100K	100K
s3	J2	×	×	×	×	×	×	×
s4	J3	×	×	×	×	×	×	×
s5	D7	SIM-22ST VW62510	×	×	SIM-22ST VW62510	×	×	×
s6	R2	10K	×	×	10K	×	×	×
s7	J5	×	×	×	×	×	×	×
s8	CB7	51048 V187800	×	×	51048 V187800	×	×	×
s9	M2	MF00235	×	×	MF00235	×	×	×

X: NOT USED  
O: USED

**Point ③ (Pin15 of IC4)**  
V : 2V/div H : 0.2 μsec/div  
DC range 1 : 1 probe



**Point ④**  
CH1 : Collector of Q3 V : 2V/div (CH1)  
CH2 : Collector of Q1 V : 5V/div (CH2)  
H : 0.5 sec/div DC range 1 : 1 probe  
(This waveform is not available by pushing the power switch ON and OFF.)



With the POWER ON, disconnect the A/C power cord. Reconnect the A/C power cord and the above waveforms will start.

RESISTOR

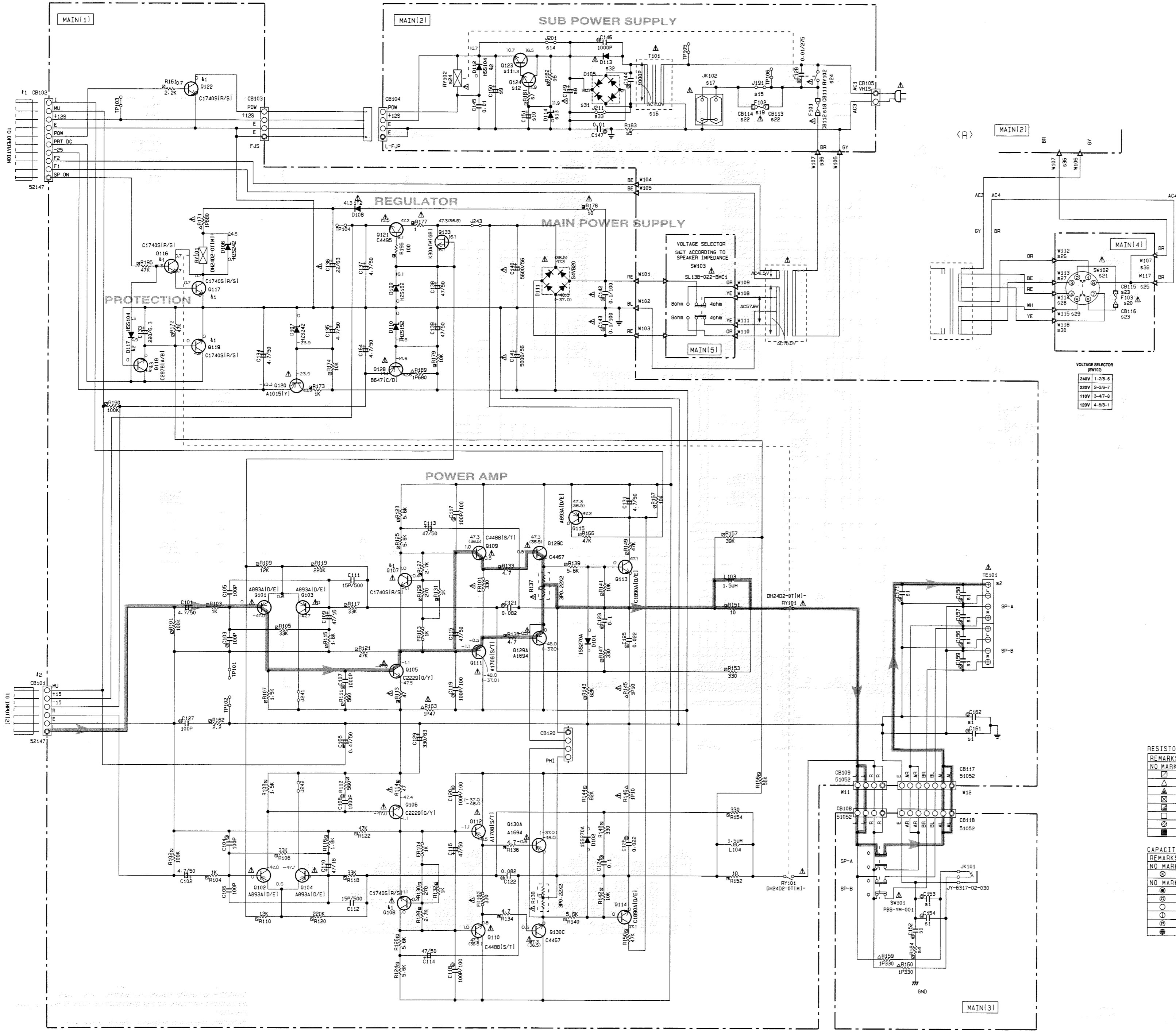
REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
▢	METAL PLATE RESISTOR
■	FIRE PROOF CARBON FILM RESISTOR
⊞	CEMENT MOLDED RESISTOR
⊚	SEMI VARIABLE RESISTOR
⊛	CHIP RESISTOR

CAPACITOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
●	CERAMIC TUBULAR CAPACITOR
⊙	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
⊖	MICA CAPACITOR
⊕	POLYPROPYLENE FILM CAPACITOR
●	SEMICONDUCTIVE CERAMIC CAPACITOR

\* All voltages are measured with a 10MΩ/DC electric volt meter.  
\* Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.  
\* Schematic diagram is subject to change without notice.

RX-396 SCHEMATIC DIAGRAM (MAIN)



CIRCUIT CHANGES BY MARKET. X: NOT USED O: USED

		U-C	V205510	R	V205520	A	V205530	G	V205540
S1	C150, 153, 154, 156, 157, 158, 159, 161, 162, 171	X	X	X	X	0.01	X	X	0.01
S2	TE101	XC31370	VC31370	VC31370	VC31370	VUB1970			
S4	R184	X	X	X	2.2	2.2			
S5	R183	1/2P2-2M	X	X					
S6	R182	X	18K	X	X				
S7	R181	X	100	X	X				
S8	C148	330/25	47/63	330/25	330/25				
S9	C150	X	220/16	X	X				
S10	C151	X	10/16	X	X				
S11	Q123	X	C446610/P/Y1	X	X				
S12	Q124	X	C189010/E1	X	X				
S13	D114	X	HZ512A2	X	X				
S14	J201	O	X	O	O				
S15	J191	O	O	O	O				
S16	T101	XC083, XG485	XT331, XT341	XC084, XG486	XC084, XG486				
S17	JK102	VU54310	VU54310	VT91900	VU54340				
S18	F101	3-5A125V, KB00360	3-5A125V, KB00360	T1-0AL250V, KB00304	T1-0AL250V, KB00304				
S19	F102	X	X	X	X				
S20	F103	X	T1-0AL250V	X	X				
S21	SW102	X	YA96180	X	X				
S22	CB113, CB114	X	X	X	X				
S23	CB115, 116	X	VP20650	X	X				
S24	RY102	VU39850, VU34980, VHZ3080	VY73530	VU39850, VU34980, VHZ3080	VU39850, VU34980, VHZ3080				
S25	M117	X	MH01235	X	X				
S26	M112	X	MH03225	X	X				
S27	M113	X	MH06225	X	X				
S28	M114	X	MH02225	X	X				
S29	M115	X	MH05225	X	X				
S30	M116	X	MH04225	X	X				
S31	D105	X	VR25370	X	X				
S32	D113	V599780	X	V599780	V599780				
S33	J211	O	X	O	O				
S36	M107	MH01235	MH01018	MH01235	MH01235				

Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
K1	0107, 108, 116, 117, 119, 122	2SC1740S(R/S), 2SC2603(E/F), 2SC3311(A/Q/R/S)
K2	D12, 117	HSS104, 1SS133, 1SS176
K3	Q118	2SC28781A/B, 2SD1915F(S/T)
K5		

RESISTOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR [P=5]
□	CARBON FILM RESISTOR [P=10]
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
⊠	METAL PLATE RESISTOR
⊞	FIRE PROOF CARBON FILM RESISTOR
⊞	CEMENT MOLDED RESISTOR
⊞	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

CAPACITOR

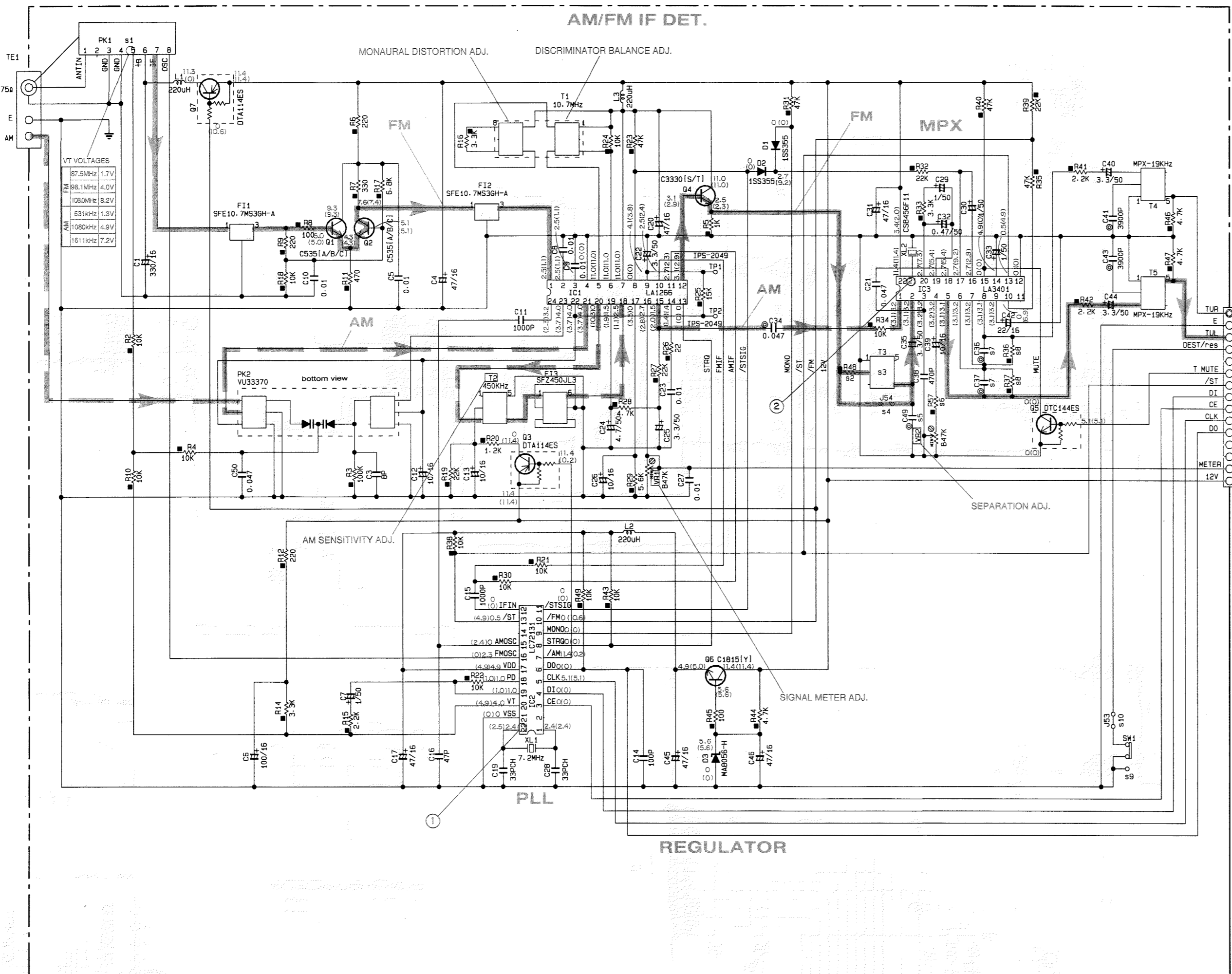
REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
⊙	POLYESTER FILM CAPACITOR
⊙	POLYSTYRENE FILM CAPACITOR
⊙	MICA CAPACITOR
⊙	POLYPROPYLENE FILM CAPACITOR
⊙	SEMICONDUCTIVE CERAMIC CAPACITOR

NOTICE (model)  
 (J)..... JAPANESE  
 (U)..... U.S.A  
 (C)..... CANADIAN  
 (R)..... GENERAL  
 (A)..... AUSTRALIAN  
 (B)..... BRITISH  
 (E)..... EUROPEAN  
 (T)..... CHINA  
 (L)..... SINGAPORE

\* All voltages are measured with a 10MΩ/DC electric volt meter.  
 \* Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.  
 \* Schematic diagram is subject to change without notice.

RX-496 SCHEMATIC DIAGRAM (TUNER)

Each voltage given here represents that in the FM (98.1MHz, STEREO) reception mode but the one in the parentheses ( ) is measured in the AM (1080kHz, MAN'L) reception mode.



CIRCUIT CHANGES BY MARKET. Table with columns U, C, R, A, G and rows for components S1 through S10.

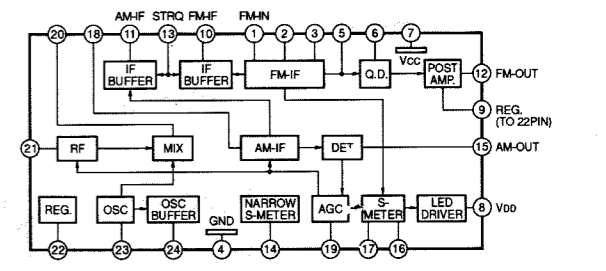
Legend for circuit changes: square for NOT USED, circle for USED.

CAPACITOR table with columns REMARKS, PARTS NAME, and a symbol column.

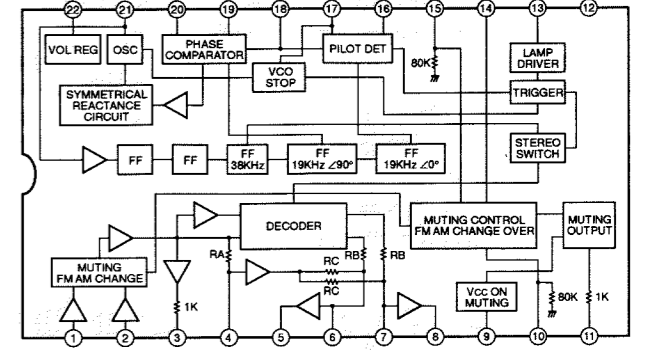
RESISTOR table with columns REMARKS, PARTS NAME, and a symbol column.

NOTICE (model) with a list of country codes: (J) JAPANESE, (U) U. S. A, (C) CANADIAN, (R) GENERAL, (A) AUSTRALIAN, (B) BRITISH, (G) EUROPEAN, (L) CHINA, (T) SINGAPORE.

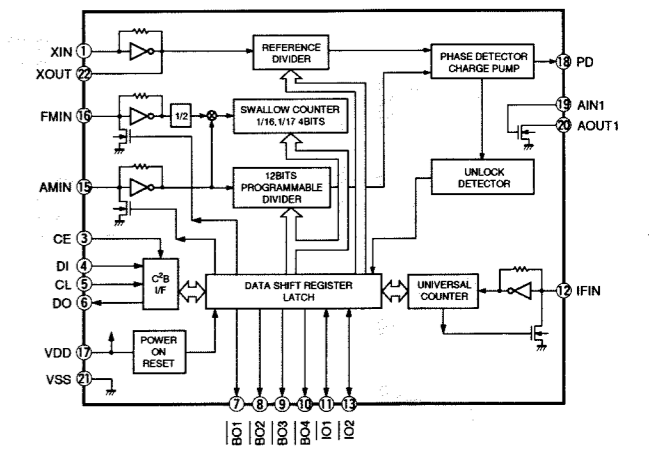
IC1 : LA1266 AM/FM IF



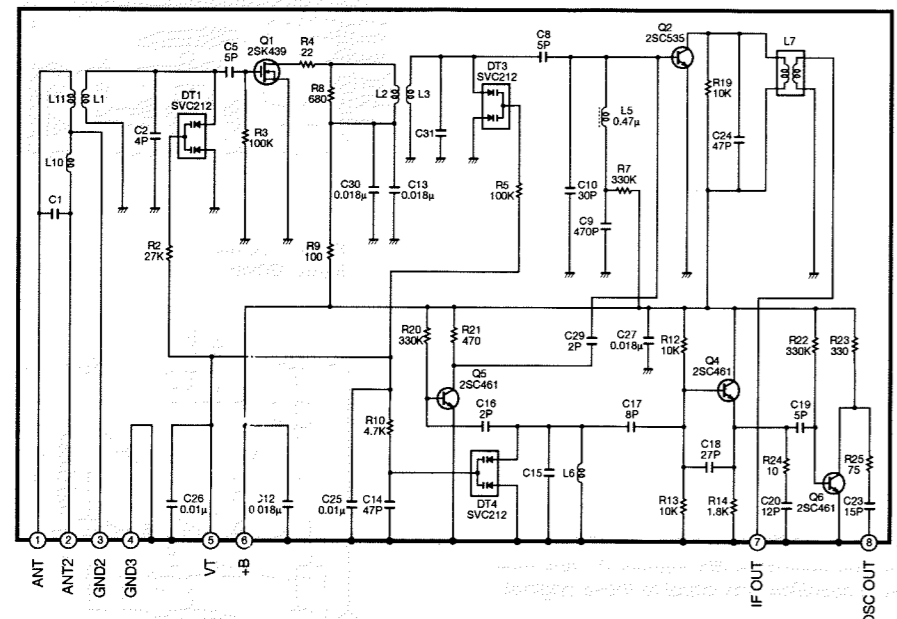
IC3 : LA3401 MPX



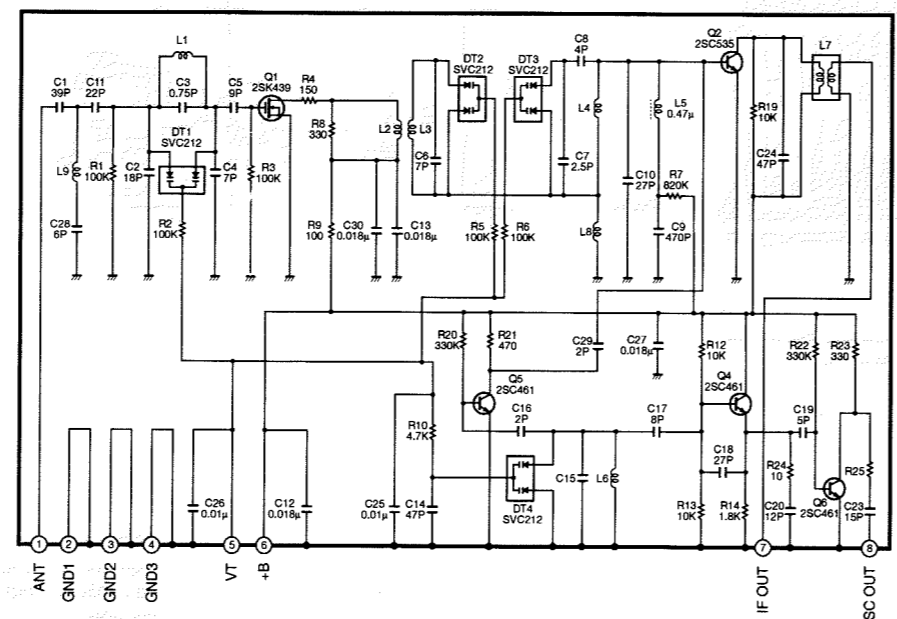
IC2 : LC72131 PLL Controller



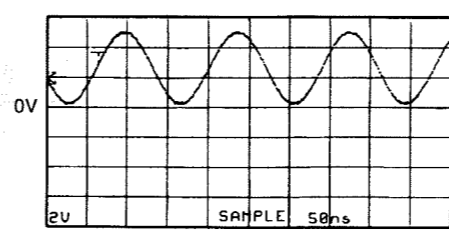
PK1 : ENV-17298G1 (VR242200) U, C, R models



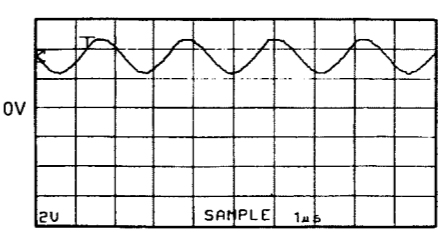
PK1 : ENV-17297G1 (VQ987600) A, G models



Point ① (Pin22 of IC2) FM reception V : 2V/div H : 50 nsec/div DC range 1 : 1 probe

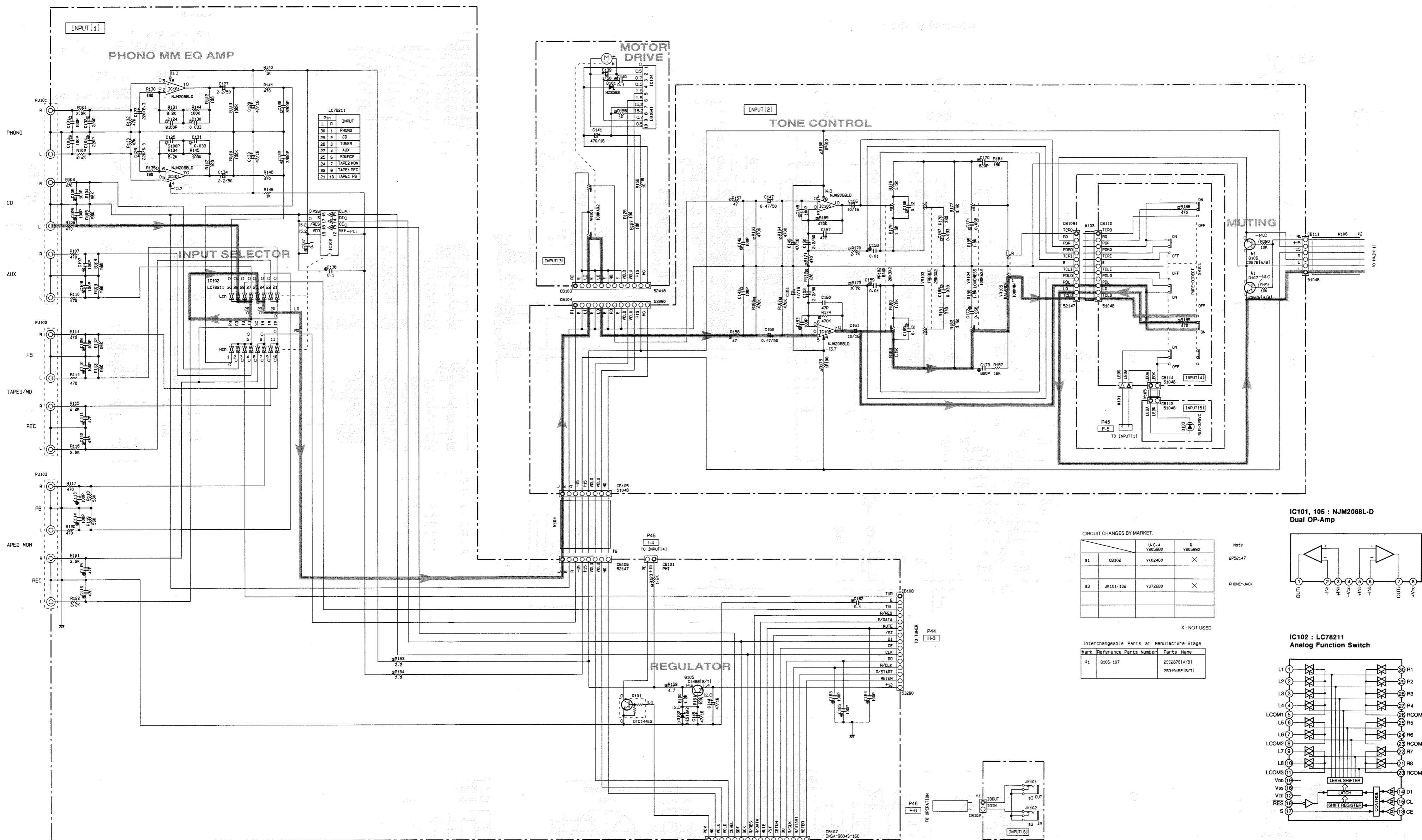


Point ② (Pin21 of IC3) V : 2V/div H : 1 usec/div DC range 1 : 1 probe



All voltages are measured with a 10MΩ/DC electric volt meter. Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed. Schematic diagram is subject to change without notice.

RX-496 SCHEMATIC DIAGRAM (INPUT)



PIN	INPUT
30	1 PHONO
29	2 CD
28	3 TUNER
27	4 AUX
26	6 SOURCE
24	7 TAPE2 MON
22	9 TAPE1 REC
21	10 TAPE1 PB

CIRCUIT CHANGES BY MARKET.

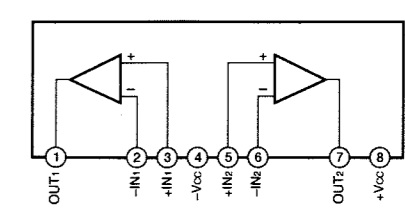
	U.C.4	V205990	R	V205990
s1	CB102	YK02460	X	
s3	JK101-102	VJ72680	X	

X: NOT USED

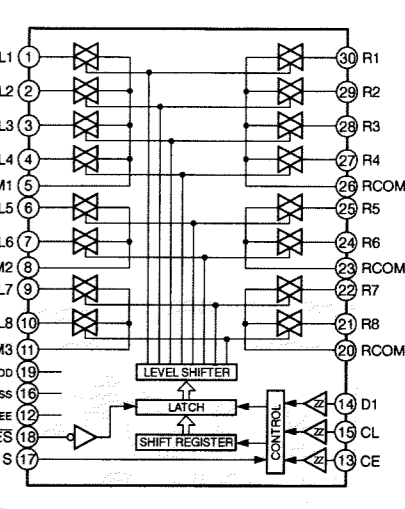
Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
k1	0106-107	2SC2878A/B1 2SD1915F1S/71

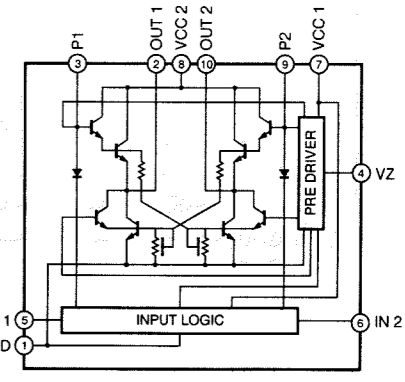
IC101, 105 : NJM2068L-D Dual OP-Amp



IC102 : LC78211 Analog Function Switch



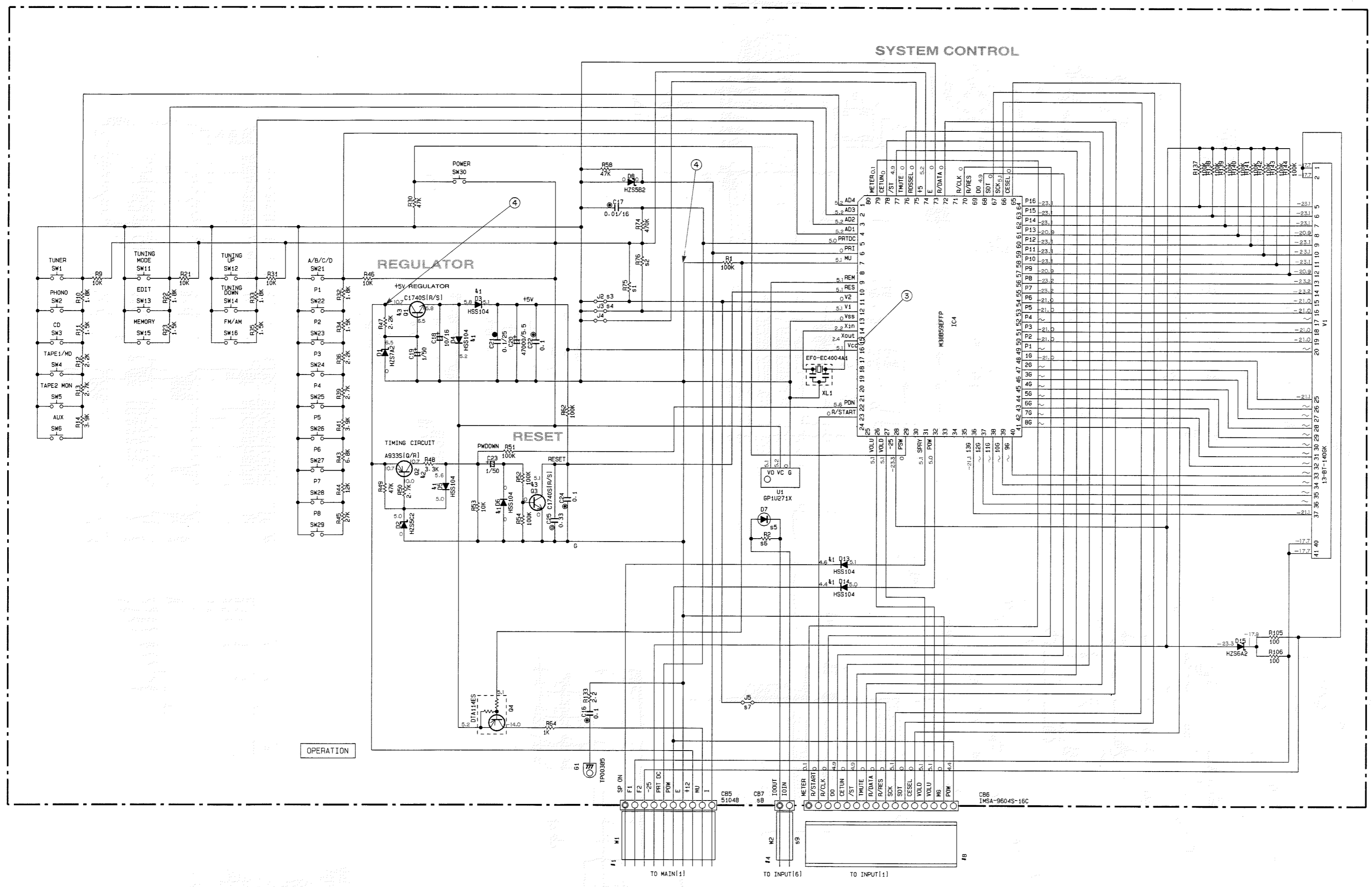
IC104 : LB1641 Motor Driver



RESISTOR	PARTS NAME	CAPACITOR	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)	NO MARK	ELECTROLYTIC CAPACITOR
△	CARBON FILM RESISTOR (P=10)	⊗	TANTALUM CAPACITOR
▲	METAL OXIDE FILM RESISTOR	⊙	CERAMIC CAPACITOR
▲	METAL FILM RESISTOR	⊙	CERAMIC TUBULAR CAPACITOR
▲	METAL PLATE RESISTOR	⊙	POLYESTER FILM CAPACITOR
⊙	FIBRE PROOF CARBON FILM RESISTOR	⊙	MICA CAPACITOR
⊙	CEMENT MOLDED RESISTOR	⊙	POLYPROPYLENE FILM CAPACITOR
⊙	SEMI VARIABLE RESISTOR	●	SEMICONDUCTIVE CERAMIC CAPACITOR
■	CHIP RESISTOR		

All voltages are measured with a 10MΩ/DC electric volt meter.  
 Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.  
 Schematic diagram is subject to change without notice.

RX-496 SCHEMATIC DIAGRAM (OPERATION)



Interchangeable Parts at Manufacture-Stage

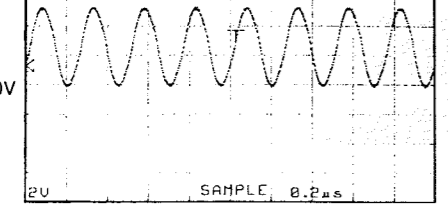
Mark	Reference Parts Number	Parts Name
*1	D3-6-13-14	HSS104 ISS133 ISS176
*2	Q2	2SA933S(Q/R) 2SA1115(E/F) 2SA1309A(Q/R/S)
*3	Q1-3	2SC1740S(R/S) 2SC2603(E/F) 2SC3311A(Q/R/S)

CIRCUIT CHANGES BY MARKET.

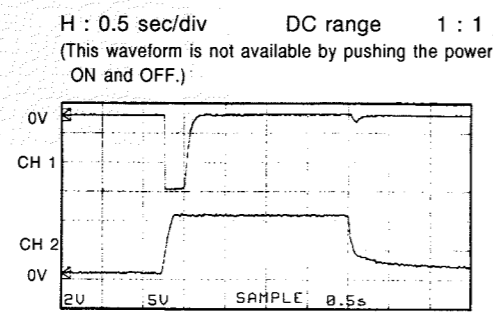
		U-C	V205440	R	V205450	A	V220750	G	V205460
*1	R75		100K		100K		X		X
*2	R76		X		100K		100K		100K
*3	J2		X		X		O		O
*4	J3		O		X		X		X
*5	D7		SIM-22ST VW62510		X		SIM-22ST VW62510		X
*6	R2		10K		X		10K		X
*7	J5		X		O		X		X
*8	CB7		S104B V187800		X		S104B V187800		X
*9	W2		MF00235		X		MF00235		X

X : NOT USED  
O : USED

Point ③ (Pin15 of IC4)  
V : 2V/div H : 0.2 μsec/div  
DC range 1 : 1 probe



Point ④  
CH1 : Collector of Q3 V : 2V/div (CH1)  
CH2 : Collector of Q1 V : 5V/div (CH2)  
H : 0.5 sec/div DC range 1 : 1 probe  
(This waveform is not available by pushing the power switch ON and OFF.)



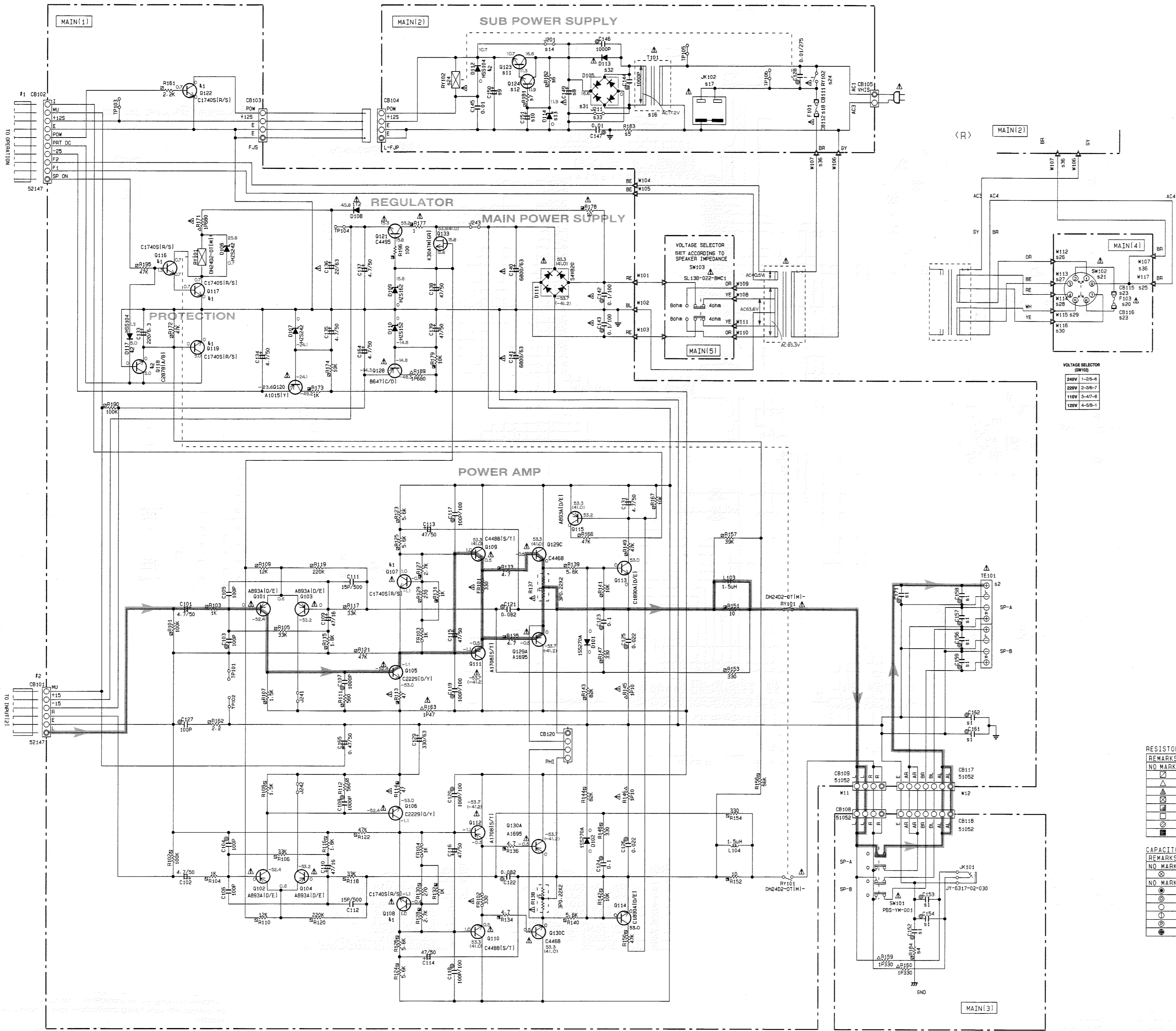
With the POWER ON, disconnect the A/C power cord. Reconnect the A/C power cord and the above waveforms will start.

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
⊠	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
□	METAL FILM RESISTOR
⊞	METAL PLATE RESISTOR
⊞	FIRE PROOF CARBON FILM RESISTOR
⊞	CEMENT MOLDED RESISTOR
⊞	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
⊙	POLYESTER FILM CAPACITOR
⊙	POLYSTYRENE FILM CAPACITOR
⊙	MICA CAPACITOR
⊙	POLYPROPYLENE FILM CAPACITOR
⊙	SEMICONDUCTIVE CERAMIC CAPACITOR

\* All voltages are measured with a 10MΩ/DC electric volt meter.  
\* Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.  
\* Schematic diagram is subject to change without notice.

**RX-496 SCHEMATIC DIAGRAM (MAIN)**



CIRCUIT CHANGES BY MARKET. X: NOT USED O: USED

Mark	Reference Parts Number	Parts Name
s1	C152-153-154-156-157-158-159-161-162-171	U-C V20610 R V20620 A V20630
s4	R184	X X 2-2
s5	R183	1/2P2-2M X X X
s6	R182	X 18K X X
s7	R181	X 100 X X
s8	C149	330/25 47/63 330/25
s9	C150	X 220/16 X X
s10	C151	X 10/16 X X
s11	D123	X C44561(Q/P/Y) X
s12	D124	X C1890A(D/E) X
s13	D114	X H2S1242 X X
s14	W201	O X O
s16	T101	XC083 XG485 X1331 X1341 X2084 XG486
s17	JK102	VU54310 VU54310 VT91500
s18	F101	5.0A125V VS82300 5.0A125V VS82300 T1-6A1250V KB00166
s20	F103	X T1-6A1250V X KB00166
s21	SW102	X VA95180 X
s23	CB115-116	X VP20650 X
s24	RY102	VU39950 VU34980 VU34980 VU39950 VU34980 VU34980
s25	M117	X MH01235 X
s26	M112	X MH03235 X
s27	M113	X MH02235 X
s28	M114	X MH02235 X
s29	M115	X MH02235 X
s30	M116	X MH04235 X
s31	D105	X VR25370 X
s32	D113	VS99780 X VS99780
s33	W211	O X O
s35	M107	MH01235 MH01018 MH01235
PWB		VU581A0 VU581A0 VU582A0

Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
k1	Q107-108-116-117-119-122	2SC1740S(R/S) 2SC2603E(F) 2SC3311A(G/R/S)
k2	D112-117	HSS104 1SS133 1SS176
k3	Q118	2SC2078(A/B) 2SD1915F(S/T)
k5		

RESISTOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
⊠	METAL FILM RESISTOR
⊡	METAL PLATE RESISTOR
⊞	FIRE PROOF CARBON FILM RESISTOR
⊞	CEMENT MOLDED RESISTOR
⊞	SEMI VARIABLE RESISTOR
⊞	CHIP RESISTOR

CAPACITOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊞	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊞	CERAMIC TUBULAR CAPACITOR
⊞	POLYESTER FILM CAPACITOR
⊞	POLYSTYRENE FILM CAPACITOR
⊞	MICA CAPACITOR
⊞	POLYPROPYLENE FILM CAPACITOR
⊞	SEMICONDUCTIVE CERAMIC CAPACITOR

NOTICE (model)  
 (J)..... JAPANESE  
 (U)..... U.S.A  
 (C)..... CANADIAN  
 (R)..... GENERAL  
 (A)..... AUSTRALIAN  
 (B)..... BRITISH  
 (G)..... EUROPEAN  
 (T)..... CHINA  
 (L)..... SINGAPORE

All voltages are measured with a 10MΩ/DC electric volt meter.  
 Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.  
 Schematic diagram is subject to change without notice.

# PARTS LIST

## ■ ELECTRICAL PARTS

### ■ WARNING

Components having special characteristics are marked  $\triangle$  and must be replaced with parts having specifications equal to those originally installed.

- Carbon resistors (1/6W or 1/4W) are not included in the ELECTRICAL PARTS List. For the part Nos. of the carbon resistors, refer to the last page.

### ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS :

C.A.EL.CHP	: CHIP ALUMI. ELECTROLYTIC CAP	L.EMIT	: LIGHT EMITTING MODULE
C.CE	: CERAMIC CAP	LED.DSPLY	: LED DISPLAY
C.CE.ARRAY	: CERAMIC CAP ARRAY	LED.INFRD	: LED, INFRARED
C.CE.CHP	: CHIP CERAMIC CAP	MODUL.RF	: MODULATOR, RF
C.CE.ML	: MULTILAYER CERAMIC CAP	PHOT.CPL	: PHOTO COUPLER
C.CE.M.CHP	: CHIP MULTILAYER CERAMIC CAP	PHOT.INTR	: PHOTO INTERRUPTER
C.CE.SAFTY	: RECOGNIZED CERAMIC CAP	PHOT.RFLCT	: PHOTO REFLECTOR
C.CE.TUBLR	: CERAMIC TUBULAR CAP	PIN.TEST	: PIN, TEST POINT
C.CE.SMI	: SEMI CONDUCTIVE CERAMIC CAP	PLST.RIVET	: PLASTIC RIVET
C.EL	: ELECTROLYTIC CAP	R.ARRAY	: RESISTOR ARRAY
C.MICA	: MICA CAP	R.CAR	: CARBON RESISTOR
C.ML.FLM	: MULTILAYER FILM CAP	R.CAR.CHP	: CHIP RESISTOR
C.MP	: METALLIZED PAPER CAP	R.CAR.FP	: FLAME PROOF CARBON RESISTOR
C.MYLAR	: MYLAR FILM CAP	R.FUS	: FUSABLE RESISTOR
C.MYLAR.ML	: MULTILAYER MYLAR FILM CAP	R.MTL.CHP	: CHIP METAL FILM RESISTOR
C.PAPER	: PAPER CAPACITOR	R.MTL.FLM	: METAL FILM RESISTOR
C.PLS	: POLYSTYRENE FILM CAP	R.MTL.OXD	: METAL OXIDE FILM RESISTOR
C.POL	: POLYESTER FILM CAP	R.MTL.PLAT	: METAL PLATE RESISTOR
C.POLY	: POLYETHYLENE FILM CAP	RSNR.CE	: CERAMIC RESONATOR
C.PP	: POLYPROPYLENE FILM CAP	RSNR.CRYS	: CRYSTAL RESONATOR
C.TNTL	: TANTALUM CAP	R.TW.CEM	: TWIN CEMENT FIXED RESISTOR
C.TNTL.CHP	: CHIP TANTALUM CAP	R.WW	: WIRE WOUND RESISTOR
C.TRIM	: TRIMMER CAP	SCR.BND.HD	: BIND HEAD B-TITE SCREW
CN	: CONNECTOR	SCR.BW.HD	: BW HEAD TAPPING SCREW
CN.BS.PIN	: CONNECTOR, BASE PIN	SCR.CUP	: CUP TITE SCREW
CN.CANNON	: CONNECTOR, CANNON	SCR.TERM	: SCREW TERMINAL
CN.DIN	: CONNECTOR, DIN	SCR.TR	: SCREW, TRANSISTOR
CN.FLAT	: CONNECTOR, FLAT CABLE	SUPRT.PCB	: SUPPORT, P.C.B.
CN.POST	: CONNECTOR, BASE POST	SURG.PRTCT	: SURGE PROTECTOR
COIL.MX.AM	: COIL, AM MIX	SW.TACT	: TACT SWITCH
COIL.AT.FM	: COIL, FM ANTENNA	SW.LEAF	: LEAF SWITCH
COIL.DT.FM	: COIL, FM DETECT	SW.LEVER	: LEVER SWITCH
COIL.MX.FM	: COIL, FM MIX	SW.MICRO	: MICRO SWITCH
COIL.OUTPT	: OUTPUT COIL	SW.PUSH	: PUSH SWITCH
DIOD.ARRAY	: DIODE ARRAY	SW.RT.ENC	: ROTARY ENCODER
DIODE.BRG	: DIODE BRIDGE	SW.RT.MTR	: ROTARY SWITCH WITH MOTOR
DIODE.CHP	: CHIP DIODE	SW.RT	: ROTARY SWITCH
DIODE.VAR	: VARACTOR DIODE	SW.SLIDE	: SLIDE SWITCH
DIOD.Z.CHP	: CHIP ZENER DIODE	TERM.SP	: SPEAKER TERMINAL
DIODE.ZENR	: ZENER DIODE	TERM.WRAP	: WRAPPING TERMINAL
DSCR.CE	: CERAMIC DISCRIMINATOR	THRMST.CHP	: CHIP THERMISTOR
FER.BEAD	: FERRITE BEADS	TR.CHP	: CHIP TRANSISTOR
FER.CORE	: FERRITE CORE	TR.DGT	: DIGITAL TRANSISTOR
FET.CHP	: CHIP FET	TR.DGT.CHP	: CHIP DIGITAL TRANSISTOR
FL.DSPLY	: FLUORESCENT DISPLAY	TRANS	: TRANSFORMER
FLTR.CE	: CERAMIC FILTER	TRANS.PULS	: PULSE TRANSFORMER
FLTR.COMB	: COMB FILTER MODULE	TRANS.PWR	: POWER TRANSFORMER ASS'y
FLTR.LC.RF	: LC FILTER, EMI	TUNER.AM	: TUNER PACK, AM
GND.MTL	: GROUND PLATE	TUNER.FM	: TUNER PACK, FM
GND.TERM	: GROUND TERMINAL	TUNER.PK	: FRONT-END TUNER PACK
HOLDER.FUS	: FUSE HOLDER	VR	: ROTARY POTENTIOMETER
IC.PRTCT	: IC PROTECTOR	VR.MTR	: POTENTIOMETER WITH MOTOR
JUMPER.CN	: JUMPER CONNECTOR	VR.SW	: POTENTIOMETER WITH ROTARY SW
JUMPER.TST	: JUMPER, TEST POINT	VR.SLIDE	: SLIDE POTENTIOMETER
L.DTCT	: LIGHT DETECTING MODULE	VR.TRIM	: TRIMMER POTENTIOMETER

Note) Those parts marked with "#" are not included in the P.C.B. ass'y.

**RX-396 P.C.B. OPERATION**

Schm Ref.	PART NO.	Description
*	V2054400	P. C. B. OPERATION(UC)
*	V2054500	P. C. B. OPERATION(R)
*	V2054600	P. C. B. OPERATION(G)
*	V2207500	P. C. B. OPERATION(A)
CB5	Vi878800	CN. BS. PIN 10P
CB6	VU271600	CN 16P
CB7	Vi878000	CN. BS. PIN 2P(UCA)
C16	VH053100	C. CE. TUBLR 0.1uF 50V
C17	VF467300	C. CE. TUBLR 0.01uF 16V
C18	VJ836900	C. EL 10uF 16V
C19	VJ839100	C. EL 1uF 50V
C20	VU545000	C. EL 47000uF 5.5V
C21	VD930900	C. CE. SMI 0.1uF 25V
C22	VH053100	C. CE. TUBLR 0.1uF 50V
C23	VJ839100	C. EL 1uF 50V
C24	VH053100	C. CE. TUBLR 0.1uF 50V
C25	UA655330	C. MYLAR 0.33uF 50V
C25	VH053100	C. CE. TUBLR 0.1uF 50V
D1	VM974600	DIODE. ZENR HZS7A2TD 7.0V
D2	VM974200	DIODE. ZENR HZS5C2TD 5.0V
D3	VD631600	DIODE 1SS133, 176, HSS104
D4	VD631600	DIODE 1SS133, 176, HSS104
D5	VD631600	DIODE 1SS133, 176, HSS104
D6	VD631600	DIODE 1SS133, 176, HSS104
D7	VV625100	LED(re) SIM-22ST(UCA)
D8	VM974100	DIODE. ZENR HZS5B2TD 5.0V
D13	VD631600	DIODE 1SS133, 176, HSS104
D14	VD631600	DIODE 1SS133, 176, HSS104
D15	VM974300	DIODE. ZENR HZS6A2TD 6.0V
G1	VR463400	TERM. GND D3.5 TP00385
IC4	XU108A00	IC M38B57M6-103FP CPU
Q1	iC174020	TR 2SC1740S R, S
Q2	iA093320	TR 2SA933S Q, R
Q3	iC174020	TR 2SC1740S R, S
Q4	VD678500	TR. DGT DTA114ES
SW1	V2014900	SW. TACT EVQ21304M
SW2	V2014900	SW. TACT EVQ21304M
SW3	V2014900	SW. TACT EVQ21304M
SW4	V2014900	SW. TACT EVQ21304M
SW5	V2014900	SW. TACT EVQ21304M
SW6	V2014900	SW. TACT EVQ21304M
SW11	V2014900	SW. TACT EVQ21304M
SW12	V2014900	SW. TACT EVQ21304M
SW13	V2014900	SW. TACT EVQ21304M
SW14	V2014900	SW. TACT EVQ21304M
SW15	V2014900	SW. TACT EVQ21304M
SW16	V2014900	SW. TACT EVQ21304M
SW21	V2014900	SW. TACT EVQ21304M
SW22	V2014900	SW. TACT EVQ21304M
SW23	V2014900	SW. TACT EVQ21304M
SW24	V2014900	SW. TACT EVQ21304M
SW25	V2014900	SW. TACT EVQ21304M
SW26	V2014900	SW. TACT EVQ21304M

\* New Parts

Schm Ref.	PART NO.	Description
SW27	V2014900	SW. TACT EVQ21304M
SW28	V2014900	SW. TACT EVQ21304M
SW29	V2014900	SW. TACT EVQ21304M
SW30	V2014900	SW. TACT EVQ21304M
U1	VU591000	L. DTCT GPIU271X
V1	VT668600	FL. DSPLY 13-BT-140GK
XL1	VD827600	RSNR. CE 4MHz
	VY760000	SPACER (UCA)
	VR380100	SPACER FL-T6
	VR519500	SHEET

\* New Parts

RX-396/496



RX-396 P.C.B. MAIN

Schm Ref.	PART NO.	Description		
*	V2055100	P. C. B.	MAIN(UC)	
*	V2055200	P. C. B.	MAIN(R)	
*	V2055300	P. C. B.	MAIN(A)	
*	V2055400	P. C. B.	MAIN(G)	
CB101	VF728300	CN	6P	
CB102	VF728200	CN. BS. PIN	10P	
CB103	VS839400	CN. BS. PIN	4P	
CB104	VS839500	CN	4P	
CB105	VG879900	CN. BS. PIN	2P	
CB108	VR428900	CN. BS. PIN	4P	
CB109	VR428900	CN. BS. PIN	4P	
CB111	VP206500	HOLDER. FUS	EYF-52BC	
CB112	VP206500	HOLDER. FUS	EYF-52BC	
CB113	VP206500	HOLDER. FUS	EYF-52BC(G)	
CB114	VP206500	HOLDER. FUS	EYF-52BC(G)	
CB115	VP206500	HOLDER. FUS	EYF-52BC(R)	
CB116	VP206500	HOLDER. FUS	EYF-52BC(R)	
CB117	VQ584900	CN. BS. PIN	7P	
CB118	VQ584900	CN. BS. PIN	7P	
CB120	VD004700	CN. BS. PIN	4P	
C101	UM416470	C. EL	4.7uF	50V
C102	UM416470	C. EL	4.7uF	50V
C103	UA652100	C. MYLAR	100pF	50V
C104	UA652100	C. MYLAR	100pF	50V
C105	FG212100	C. CE	100pF	50V
C106	FG212100	C. CE	100pF	50V
C107	UA653100	C. MYLAR	1000pF	50V
C108	UA653100	C. MYLAR	1000pF	50V
C109	VJ837200	C. EL	47uF	16V
C110	VJ837200	C. EL	47uF	16V
C111	VR516400	C. CE	15p	500V
C112	VR516400	C. CE	15p	500V
C113	UJ667470	C. EL	47uF	50V
C114	UJ667470	C. EL	47uF	50V
C115	VG291200	C. EL	47uF	50V
C116	VG291200	C. EL	47uF	50V
C117	VR325000	C. MYLAR	100pF	100V
C118	VR325000	C. MYLAR	100pF	100V
C119	VR325000	C. MYLAR	100pF	100V
C120	VR325000	C. MYLAR	100pF	100V
C121	UA654820	C. MYLAR	0.082uF	50V
C122	UA654820	C. MYLAR	0.082uF	50V
C123	UA655100	C. MYLAR	0.1uF	50V
C124	UA655100	C. MYLAR	0.1uF	50V
C125	UA654220	C. MYLAR	0.022uF	50V
C126	UA654220	C. MYLAR	0.022uF	50V
C127	UA652100	C. MYLAR	100pF	50V
C128	VS741700	C. CE. SAFTY	0.01uF	275V
C129	VK182500	C. EL	330uF	63V
C131	UM416470	C. EL	4.7uF	50V
C133	VC815000	C. EL	220uF	6.3V
C134	UM416470	C. EL	4.7uF	50V
C135	JM416470	C. EL	4.7uF	50V

\* New Parts

Schm Ref.	PART NO.	Description		
△	C136	Vi846000	C. EL	22uF 63V
	C137	UM416470	C. EL	4.7uF 50V
	C138	UJ667470	C. EL	47uF 50V
	C139	UJ667470	C. EL	47uF 50V
△	C140	VR023900	C. EL	5600uF 56V
△	C141	VR023900	C. EL	5600uF 56V
△	C142	VR325400	C. MYLAR	0.1uF 100V
△	C143	VR325400	C. MYLAR	0.1uF 100V
	C144	UA653100	C. MYLAR	1000pF 50V
	C145	FG214100	C. CE	0.01uF 50V
	C146	UA653100	C. MYLAR	1000pF 50V
	C147	UA654100	C. MYLAR	0.01uF 50V
△	C149	Ui377470	C. EL	47uF 63V(R)
△	C149	VK457600	C. EL	330uF 25V(UCAG)
	C150	UJ648220	C. EL	220uF 25V(R)
	C151	VJ836900	C. EL	10uF 16V(R)
	C152	UA654100	C. MYLAR	0.01uF 50V(AG)
	C153	UA654100	C. MYLAR	0.01uF 50V(AG)
	C154	UA654100	C. MYLAR	0.01uF 50V(AG)
	C156	UA654100	C. MYLAR	0.01uF 50V(AG)
	C157	UA654100	C. MYLAR	0.01uF 50V(AG)
	C158	UA654100	C. MYLAR	0.01uF 50V(AG)
	C159	UA654100	C. MYLAR	0.01uF 50V(AG)
	C161	UA654100	C. MYLAR	0.01uF 50V(AG)
	C162	UA654100	C. MYLAR	0.01uF 50V(AG)
	C164	UM416470	C. EL	4.7uF 50V
	C165	UK665470	C. EL	0.47uF 50V
	C171	UA654100	C. MYLAR	0.01uF 50V(AG)
	C191	VH053100	C. CE. TUBLR	0.1uF 50V
	D101	VN008700	DIODE	1SS270A
	D102	VN008700	DIODE	1SS270A
	D105	VR253700	DIODE. BRG	S1NB20 1A 200V(R)
	D106	VM976300	DIODE. ZENR	HZS242TD 24V
	D107	VM976300	DIODE. ZENR	HZS242TD 24V
△	D108	VS997800	DIODE	1T2
	D109	VM975900	DIODE. ZENR	HZS162TD 16V
	D110	VM975800	DIODE. ZENR	HZS152TD 15V
△	D111	iH001090	DIODE. BRG	S4VB20 2.6A 200V
	D112	VD631600	DIODE	1SS133, 176, HSS104
△	D113	VS997800	DIODE	1T2(UCAG)
	D114	VM975500	DIODE. ZENR	HZS12A2TD 12V(R)
	D117	VD631600	DIODE	1SS133, 176, HSS104
△	F101	KB003040	FUSE	TL1.0A S(AG)
△	F101	VS822800	FUSE	T3.15A 125V(UCR)
△	F102	KB000690	FUSE	T2.5A 250V(G)
△	F103	KB003040	FUSE	TL1.0A S(R)
△	FR101	VK188400	R. FUS	330Ω 1/4W
△	FR102	VK188400	R. FUS	330Ω 1/4W
	FR103	VK189000	R. FUS	1KΩ 1/4W
	FR104	VK189000	R. FUS	1KΩ 1/4W
	G105	VR463400	TERM. GND	D3.5 TP00385
	JK101	VY687200	JACK. PHONE	JY-6317-02-030 NUT
△	JK102	VT915000	OUTLET. AC	2P(A)

\* New Parts

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RX-396 P.C.B. MAIN

Schm Ref.	PART NO.	Description	
△ JK102	VU543100	OUTLET. AC	2P(UCR)
△ JK102	VU543400	OUTLET. AC	2P(G)
L103	VP575600	COIL	1.5uH
L104	VP575600	COIL	1.5uH
△ Q101	VP883000	TR	2SA893A D, E
△ Q102	VP883000	TR	2SA893A D, E
△ Q103	VP883000	TR	2SA893A D, E
△ Q104	VP883000	TR	2SA893A D, E
△ Q105	VR325600	TR	2SC2229 O, Y
△ Q106	VR325600	TR	2SC2229 O, Y
△ Q107	iC174020	TR	2SC1740S R, S
△ Q108	iC174020	TR	2SC1740S R, S
△ Q109	VP872700	TR	2SC4488 S, T
△ Q110	VP872700	TR	2SC4488 S, T
△ Q111	VP872600	TR	2SA1708 S, T
△ Q112	VP872600	TR	2SA1708 S, T
△ Q113	VP883100	TR	2SC1890A D, E
△ Q114	VP883100	TR	2SC1890A D, E
△ Q115	VP883000	TR	2SA893A D, E
△ Q116	iC174020	TR	2SC1740S R, S
△ Q117	iC174020	TR	2SC1740S R, S
△ Q118	iC287820	TR	2SC2878 A, B
△ Q119	iC174020	TR	2SC1740S R, S
△ Q120	iA101521	TR	2SA1015 Y
△ Q121	VN996900	TR	2SC4495
△ Q122	iC174020	TR	2SC1740S R, S
△ Q123	VP768300	TR	2SC4466 O, P, Y(R)
△ Q124	VP883100	TR	2SC1890A D, E(R)
△ Q128	VR402300	TR	2SB647 C, D
△ Q129	VR355800	TR. PAIR	2SA1694/C4467 OPY
△ Q130	VR355800	TR. PAIR	2SA1694/C4467 OPY
△ Q133	iE000020	FET	2SK30ATM GR
△ R113	HV454470	R. CAR. FP	47Ω 1/4W
△ R114	HV454470	R. CAR. FP	47Ω 1/4W
△ R127	HV456270	R. CAR. FP	2.7KΩ 1/4W
△ R128	HV456270	R. CAR. FP	2.7KΩ 1/4W
△ R131	HV456100		1KΩ 1/4W
△ R132	HV456100		1KΩ 1/4W
△ R133	HV453470	R. CAR. FP	4.7Ω 1/4W
△ R134	HV453470	R. CAR. FP	4.7Ω 1/4W
△ R135	HV453470	R. CAR. FP	4.7Ω 1/4W
△ R136	HV453470	R. CAR. FP	4.7Ω 1/4W
△ R137	VU981700	R. MTL. PLAT	0.22Ω+0.22 3W
△ R138	VU981700	R. MTL. PLAT	0.22Ω+0.22 3W
△ R145	HL314100	R. MTL. OXD	10Ω 1W
△ R146	HL314100	R. MTL. OXD	10Ω 1W
△ R151	HV454100	R. CAR. FP	10Ω 1/4W
△ R152	HV454100	R. CAR. FP	10Ω 1/4W
△ R159	HL315330	R. MTL. OXD	330Ω 1W
△ R160	HL315330	R. MTL. OXD	330Ω 1W
△ R163	HL314470	R. MTL. OXD	47Ω 1W
△ R171	HL315680	R. MTL. OXD	680Ω 1W
△ R173	HV456100		1KΩ 1/4W

\* New Parts

Schm Ref.	PART NO.	Description	
△ R177	HV453100	R. CAR. FP	1Ω 1/4W
△ R178	HV454100	R. CAR. FP	10Ω 1/4W
△ R179	HV457100	R. CAR. FP	10KΩ 1/4W
△ R189	HL315680	R. MTL. OXD	680Ω 1W
△ R196	HV455100	R. CAR. FP	100Ω 1/4W
△ RY101	VK438300	RELAY	DH24D2-OT/M2
△ RY102	VU398500	RELAY	DC LK1AF-12V(UCAG)
△ RY102	VY735300	RELAY	DC G5P-1(R)
△ SW101	VV523900	SW. PUSH	PBS-YM-001
△ SW102	VA961800	VOLT. SELCT	ESE-37247-F(R)
△ SW103	VZ361100	SW. SLIDE	SL13B-022-AMC1
△ T101	XC083A00	TRANS. PWR	(UC)
△ T101	XC084A00	TRANS. PWR	(AG)
△ T101	XT331A00	TRANS. PWR	(R)
△ TE101	VC313700	TERM. SP	8P(UCRA)
△ TE101	VU819700	TERM. SP	8P(G)
	VJ828000	PIN	IMSA-6024-03E
	BB071360	SCR. TERM	8.3x13
	VR264300	PLATE. GND	
	VP753100	HEAT. SINK	IC-1625-MML
	Ei330166	SCR. BND. HD	3x16 FCRM3-BL
	VY834500	SUPRT	(RAG)

\* New Parts

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## RX-396 P.C.B. INPUT

Schm Ref.	PART NO.	Description		
* V2054800	P. C. B.	INPUT (UCA)		
* V2054900	P. C. B.	INPUT (RG)		
CB102	VK024600	CN. BS. PIN	2P (UCA)	
CB103	VQ961500	CN. BS. PIN	12P	
CB104	VQ963300	CN. BS. PIN	12P	
CB105	Vi878600	CN. BS. PIN	8P	
CB106	VK025200	CN. BS. PIN	8P	
CB107	VU271600	CN	16P	
CB108	VQ963600	CN. BS. PIN	15P	
CB111	Vi878400	CN. BS. PIN	6P	
C101	UA652100	C. MYLAR	100pF	50V
C102	UA652220	C. MYLAR	220pF	50V
C103	UA652100	C. MYLAR	100pF	50V
C104	UA652220	C. MYLAR	220pF	50V
C105	VF466800	C. CE. TUBLR	100pF	50V
C106	VF466800	C. CE. TUBLR	100pF	50V
C107	VF466800	C. CE. TUBLR	100pF	50V
C108	VF466800	C. CE. TUBLR	100pF	50V
C109	VF466800	C. CE. TUBLR	100pF	50V
C110	VF466800	C. CE. TUBLR	100pF	50V
C111	VF466700	C. CE. TUBLR	47pF	50V
C112	VF466700	C. CE. TUBLR	47pF	50V
C113	VF466800	C. CE. TUBLR	100pF	50V
C114	VF466800	C. CE. TUBLR	100pF	50V
C115	VF466700	C. CE. TUBLR	47pF	50V
C116	VF466700	C. CE. TUBLR	47pF	50V
C123	VC815000	C. EL	220uF	6.3V
C124	UA653910	C. MYLAR	9100pF	50V
C125	UA653910	C. MYLAR	9100pF	50V
C126	VC815000	C. EL	220uF	6.3V
C127	VJ839200	C. EL	2.2uF	50V
C128	UA653330	C. MYLAR	3300pF	50V
C129	VJ837200	C. EL	47uF	16V
C130	UA654330	C. MYLAR	0.033uF	50V
C131	UA654330	C. MYLAR	0.033uF	50V
C132	UA653330	C. MYLAR	3300pF	50V
C133	VJ837200	C. EL	47uF	16V
C134	VJ839200	C. EL	2.2uF	50V
C137	VH053100	C. CE. TUBLR	0.1uF	50V
C138	VH053100	C. CE. TUBLR	0.1uF	50V
C139	VG722100	C. EL	1uF	50V
C140	VH053100	C. CE. TUBLR	0.1uF	50V
C141	UJ638470	C. EL	470uF	16V
C142	UA652100	C. MYLAR	100pF	50V
C143	UA652100	C. MYLAR	100pF	50V
C144	VJ837200	C. EL	47uF	16V
C145	VJ837200	C. EL	47uF	16V
C147	VJ839000	C. EL	0.47uF	50V
C148	UA652100	C. MYLAR	100pF	50V
C149	VG291200	C. EL	47uF	50V
C150	VJ839200	C. EL	2.2uF	50V
C151	VG291200	C. EL	47uF	50V
C152	VJ839200	C. EL	2.2uF	50V

\* New Parts

Schm Ref.	PART NO.	Description		
C153	UA652100	C. MYLAR	100pF	50V
C155	VJ839000	C. EL	0.47uF	50V
C156	VG290900	C. EL	10uF	50V
C157	FG211470	C. CE	47pF	50V
C160	FG211470	C. CE	47pF	50V
C161	VG290900	C. EL	10uF	50V
C162	VH053100	C. CE. TUBLR	0.1uF	50V
C164	VF466800	C. CE. TUBLR	100pF	50V
C165	VF466800	C. CE. TUBLR	100pF	50V
C166	UA655120	C. MYLAR	0.12uF	50V
C167	UA654330	C. MYLAR	0.033uF	50V
C168	UA654330	C. MYLAR	0.033uF	50V
C169	UA655120	C. MYLAR	0.12uF	50V
C170	VG279000	C. CE. TUBLR	820pF	50V
C171	UA654680	C. MYLAR	0.068uF	50V
C172	UA654680	C. MYLAR	0.068uF	50V
C173	VG279000	C. CE. TUBLR	820pF	50V
C201	VF467300	C. CE. TUBLR	0.01uF	16V (UCA)
C203	VF467300	C. CE. TUBLR	0.01uF	16V (UCA)
D101	VM974100	DIODE. ZENR	HZS5B2TD	5.0V
D102	VM975500	DIODE. ZENR	HZS12A2TD	12V
IC101	XM356A00	IC	NJM2068LD	
IC102	XP894A00	IC	LC78211	
IC104	XF494A00	IC	LB1641	
IC105	XM356A00	IC	NJM2068LD	
JK101	VJ726800	JACK. MNI	(UCA)	
JK102	VJ726800	JACK. MNI	(UCA)	
PJ101	VN308700	JACK. PIN	6P	
PJ102	VV306900	JACK. PIN	4P	
PJ103	VV306900	JACK. PIN	4P	
Q105	VP872700	TR	2SC4488 S, T	
Q106	iC287820	TR	2SC2878 A, B	
Q107	iC287820	TR	2SC2878 A, B	
R153	HV453220	R. CAR. FP	2.2Ω	1/4W
R154	HV453220	R. CAR. FP	2.2Ω	1/4W
R155	HV454100	R. CAR. FP	10Ω	1/4W
R156	HV454100	R. CAR. FP	10Ω	1/4W
R159	HV453470	R. CAR. FP	4.7Ω	1/4W
R168	HL315100	R. MIL. OXD	100Ω	1W
R175	HL315100	R. MIL. OXD	100Ω	1W
VR101	VR710500	VR. MTR	A100KΩ	
VR102	VP741800	VR	B20KΩ	
VR103	VP741900	VR	G25KΩ	
VR104	VP700700	VR	A100KΩ	
VR105	VP742000	VR	MN100KΩ	
	VJ828000	PIN	IMS-6024-03E (UCA)	
	BB071360	SCR. TERM	8.3x13 (UCA)	
	VR435100	PLATE	W16	

\* New Parts

RX-396 P.C.B. TUNER

Schm Ref.	PART NO.	Description		
	VV022300	P. C. B.	TUNER(UC)	
	VV022400	P. C. B.	TUNER(R)	
	VV022500	P. C. B.	TUNER(AG)	
CB4	VQ961800	CN. BS. PIN	15P	
C1	VG287800	C. EL	330uF	16V
C3	VG275800	C. CE. TUBLR	8. 2pF	50V
C4	VG291200	C. EL	47uF	50V
C5	VF467300	C. CE. TUBLR	0. 01uF	16V
C6	VG288900	C. EL	100uF	25V
C7	VJ839100	C. EL	1uF	50V
C8	VF467300	C. CE. TUBLR	0. 01uF	16V
C9	VF467300	C. CE. TUBLR	0. 01uF	16V
C10	VF467300	C. CE. TUBLR	0. 01uF	16V
C11	VF467000	C. CE. TUBLR	1000pF	50V
C12	VJ836900	C. EL	10uF	16V
C13	VJ836900	C. EL	10uF	16V
C14	VF466800	C. CE. TUBLR	100pF	50V
C15	VF467000	C. CE. TUBLR	1000pF	50V
C16	VF466700	C. CE. TUBLR	47pF	50V
C17	VG291200	C. EL	47uF	50V
C19	VA761200	C. CE	33pF	50V
C20	VG291200	C. EL	47uF	50V
C21	VJ599000	C. CE. TUBLR	0. 047uF	16V
C22	UM216330	C. EL	3. 3uF	50V
C23	VF467300	C. CE. TUBLR	0. 01uF	16V
C24	UM416470	C. EL	4. 7uF	50V
C25	UM216330	C. EL	3. 3uF	50V
C26	VJ836900	C. EL	10uF	16V
C27	VF467300	C. CE. TUBLR	0. 01uF	16V
C28	VA761200	C. CE	33pF	50V
C29	VJ839100	C. EL	1uF	50V
C30	VJ839100	C. EL	1uF	50V
C31	VG291200	C. EL	47uF	50V
C32	VJ839000	C. EL	0. 47uF	50V
C33	VJ839100	C. EL	1uF	50V
C34	UA654470	C. MYLAR	0. 047uF	50V
C35	UM216330	C. EL	3. 3uF	50V
C36	UA652470	C. MYLAR	470pF	50V(AG)
C36	UA653100	C. MYLAR	1000pF	50V(UCR)
C37	UA652470	C. MYLAR	470pF	50V(AG)
C37	UA653100	C. MYLAR	1000pF	50V(UCR)
C38	VF466900	C. CE. TUBLR	470pF	50V
C39	VJ836900	C. EL	10uF	16V
C40	UM216330	C. EL	3. 3uF	50V
C41	UA653390	C. MYLAR	3900pF	50V
C42	UM407220	C. EL	22uF	25V
C43	UA653390	C. MYLAR	3900pF	50V
C44	UM216330	C. EL	3. 3uF	50V
C45	VG291200	C. EL	47uF	50V
C46	VG291200	C. EL	47uF	50V
C49	UA652120	C. MYLAR	120pF	50V(AG)
C49	UA652470	C. MYLAR	470pF	50V(UCR)
C50	VJ599000	C. CE. TUBLR	0. 047uF	16V

Schm Ref.	PART NO.	Description		
D1	VD631600	DIODE	1SS133, 176, HSS104	
D2	VD631600	DIODE	1SS133, 176, HSS104	
D3	VG437800	DIODE. ZENR	MTZJ5. 6C 5. 6V	
Fi1	GG000560	FLTR. CE	SFE10. 7MS3GHY-A	
Fi2	GG000560	FLTR. CE	SFE10. 7MS3GHY-A	
Fi3	VC219000	FLTR. CE	SFZ450JL3	
IC1	XB760A00	IC	LA1266	
IC2	XQ944A00	IC	LC72131	
IC3	iG158100	IC	LA3401	
L1	Vi546100	COIL	220uH	
L2	Vi546100	COIL	220uH	
L3	Vi546100	COIL	220uH	
PK1	VQ987600	TUNER. PK	EXV-17296G1 (AG)	
PK1	VR242200	TUNER. PK	EXV-17296G1 (UCR)	
PK2	VU333700	COIL. RF. AM	940536051A	
Q1	iC053540	TR	2SC535 A, B, C	
Q2	iC053540	TR	2SC535 A, B, C	
Q3	VD678500	TR. DGT	DTA114ES	
Q4	VC218900	TR	2SC3330 R, S, T	
Q5	VG722000	TR. DGT	DTC144ES	
Q6	iC1815C0	TR	2SC1815 Y	
Q7	VD678500	TR. DGT	DTA114ES	
SW1	VS602600	SW. SLIDE	SS070-P022 A(R)	
T1	VC218600	COIL. DT. FM	10. 7MHz	
T2	VR895700	COIL. IF	450KHz	
T3	VT486800	COIL	XYA2(AG)	
T4	VQ138200	FLTR. LC	19KHz	
T5	VQ138200	FLTR. LC	19KHz	
TE1	VU477800	TERM. ANT	AJ-2038-040	
TP1	VT969000	PIN. TEST	IRS-2049	
TP2	VT969000	PIN. TEST	IRS-2049	
VR1	VJ694000	VR. TRIM	B47K Ω	
VR2	VJ694000	VR. TRIM	B47K Ω	
XL1	QU003800	RSNR. CRYST	7. 2MHz	
XL2	GG000750	RSNR. CE	18. 95KHz	
	BB071360	SCR. TERM	8. 3x13	
	VR282500	PLATE	ANT.	

\* New Parts

\* New Parts

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**RX-496 P.C.B. OPERATION**

Schm Ref.	PART NO.	Description	
*	V2054400	P. C. B.	OPERATION(UC)
*	V2054500	P. C. B.	OPERATION(R)
*	V2207500	P. C. B.	OPERATION(A)
CB5	Vi878800	CN. BS. PIN	10P
CB6	VU271600	CN	16P
CB7	Vi878000	CN. BS. PIN	2P(UCA)
C16	VH053100	C. CE. TUBLR	0. 1uF 50V
C17	VF467300	C. CE. TUBLR	0. 01uF 16V
C18	VJ836900	C. EL	10uF 16V
C19	VJ839100	C. EL	1uF 50V
C20	VU545000	C. EL	47000uF 5. 5V
C21	VD930900	C. CE. SMI	0. 1uF 25V
C22	VH053100	C. CE. TUBLR	0. 1uF 50V
C23	VJ839100	C. EL	1uF 50V
C24	VH053100	C. CE. TUBLR	0. 1uF 50V
C25	UA655330	C. MYLAR	0. 33uF 50V
C25	VH053100	C. CE. TUBLR	0. 1uF 50V
D1	VM974600	DIODE. ZENR	HZS7A2TD 7. 0V
D2	VM974200	DIODE. ZENR	HZS5C2TD 5. 0V
D3	VD631600	DIODE	1SS133, 176, HSS104
D4	VD631600	DIODE	1SS133, 176, HSS104
D5	VD631600	DIODE	1SS133, 176, HSS104
D6	VD631600	DIODE	1SS133, 176, HSS104
D7	VV625100	LED(re)	SIM-22ST(UCA)
D8	VM974100	DIODE. ZENR	HZS5B2TD 5. 0V
D13	VD631600	DIODE	1SS133, 176, HSS104
D14	VD631600	DIODE	1SS133, 176, HSS104
D15	VM974300	DIODE. ZENR	HZS6A2TD 6. 0V
G1	VR463400	TERM. GND	D3. 5 TP00385
IC4	XU108A00	IC	M38B57M6-103FP CPU
Q1	iC174020	TR	2SC1740S R, S
Q2	iA093320	TR	2SA933S Q, R
Q3	iC174020	TR	2SC1740S R, S
Q4	VD678500	TR. DGT	DTA114ES
SW1	V2014900	SW. TACT	EVQ21304M
SW2	V2014900	SW. TACT	EVQ21304M
SW3	V2014900	SW. TACT	EVQ21304M
SW4	V2014900	SW. TACT	EVQ21304M
SW5	V2014900	SW. TACT	EVQ21304M
SW6	V2014900	SW. TACT	EVQ21304M
SW11	V2014900	SW. TACT	EVQ21304M
SW12	V2014900	SW. TACT	EVQ21304M
SW13	V2014900	SW. TACT	EVQ21304M
SW14	V2014900	SW. TACT	EVQ21304M
SW15	V2014900	SW. TACT	EVQ21304M
SW16	V2014900	SW. TACT	EVQ21304M
SW21	V2014900	SW. TACT	EVQ21304M
SW22	V2014900	SW. TACT	EVQ21304M
SW23	V2014900	SW. TACT	EVQ21304M
SW24	V2014900	SW. TACT	EVQ21304M
SW25	V2014900	SW. TACT	EVQ21304M
SW26	V2014900	SW. TACT	EVQ21304M
SW27	V2014900	SW. TACT	EVQ21304M

\* New Parts

Schm Ref.	PART NO.	Description	
SW28	V2014900	SW. TACT	EVQ21304M
SW29	V2014900	SW. TACT	EVQ21304M
SW30	V2014900	SW. TACT	EVQ21304M
U1	VU591000	L. DTCT	GP1U271X
V1	VT668600	FL. DSPLY	13-BT-140GK
XL1	VD827600	RSNR. CE	4MHz
	VY760000	SPACER	(UCA)
	VR380100	SPACER	FL-T6
	VR519500	SHEET	

\* New Parts

RX-396/496

RX-496 P.C.B. MAIN

Schm Ref.	PART NO.	Description
	V2060100	P. C. B. MAIN(UC)
	V2060200	P. C. B. MAIN(R)
	V2060300	P. C. B. MAIN(A)
CB101	VF728300	CN 6P
CB102	VF728200	CN. BS. PIN 10P
CB103	VS839400	CN. BS. PIN 4P
CB104	VS839500	CN 4P
CB105	VG879900	CN. BS. PIN 2P
CB108	VR428900	CN. BS. PIN 4P
CB109	VR428900	CN. BS. PIN 4P
CB111	VP206500	HOLDER. FUS EYF-52BC
CB112	VP206500	HOLDER. FUS EYF-52BC
CB115	VP206500	HOLDER. FUS EYF-52BC(R)
CB116	VP206500	HOLDER. FUS EYF-52BC(R)
CB117	VQ584900	CN. BS. PIN 7P
CB118	VQ584900	CN. BS. PIN 7P
CB120	VD004700	CN. BS. PIN 4P
C101	UM416470	C. EL 4.7uF 50V
C102	UM416470	C. EL 4.7uF 50V
C103	UA652100	C. MYLAR 100pF 50V
C104	UA652100	C. MYLAR 100pF 50V
C105	FG212100	C. CE 100pF 50V
C106	FG212100	C. CE 100pF 50V
C107	UA653100	C. MYLAR 1000pF 50V
C108	UA653100	C. MYLAR 1000pF 50V
C109	VJ837200	C. EL 47uF 16V
C110	VJ837200	C. EL 47uF 16V
C111	VR516400	C. CE 15p 500V
C112	VR516400	C. CE 15p 500V
C113	UJ667470	C. EL 47uF 50V
C114	UJ667470	C. EL 47uF 50V
C115	VG291200	C. EL 47uF 50V
C116	VG291200	C. EL 47uF 50V
C117	VR325000	C. MYLAR 100pF 100V
C118	VR325000	C. MYLAR 100pF 100V
C119	VR325000	C. MYLAR 100pF 100V
C120	VR325000	C. MYLAR 100pF 100V
C121	UA654820	C. MYLAR 0.082uF 50V
C122	UA654820	C. MYLAR 0.082uF 50V
C123	UA655100	C. MYLAR 0.1uF 50V
C124	UA655100	C. MYLAR 0.1uF 50V
C125	UA654220	C. MYLAR 0.022uF 50V
C126	UA654220	C. MYLAR 0.022uF 50V
C127	UA652100	C. MYLAR 100pF 50V
C128	VS741700	C. CE. SAFTY 0.01uF 275V
C129	VK182500	C. EL 330uF 63V
C131	UM416470	C. EL 4.7uF 50V
C133	VC815000	C. EL 220uF 6.3V
C134	UM416470	C. EL 4.7uF 50V
C135	UM416470	C. EL 4.7uF 50V
C136	Vi846000	C. EL 22uF 63V
C137	UM416470	C. EL 4.7uF 50V
C138	UJ667470	C. EL 47uF 50V

\* New Parts

Schm Ref.	PART NO.	Description
C139	UJ667470	C. EL 47uF 50V
C140	V2376100	C. EL 6800uF 63V
C141	V2376100	C. EL 6800uF 63V
C142	VR325400	C. MYLAR 0.1uF 100V
C143	VR325400	C. MYLAR 0.1uF 100V
C144	UA653100	C. MYLAR 1000pF 50V
C145	FG214100	C. CE 0.01uF 50V
C146	UA653100	C. MYLAR 1000pF 50V
C147	UA654100	C. MYLAR 0.01uF 50V
C149	Ui377470	C. EL 47uF 63V(R)
C149	VK457600	C. EL 330uF 25V(UCA)
C150	UJ648220	C. EL 220uF 25V(R)
C151	VJ836900	C. EL 10uF 16V(R)
C152	UA654100	C. MYLAR 0.01uF 50V(A)
C153	UA654100	C. MYLAR 0.01uF 50V(A)
C154	UA654100	C. MYLAR 0.01uF 50V(A)
C156	UA654100	C. MYLAR 0.01uF 50V(A)
C157	UA654100	C. MYLAR 0.01uF 50V(A)
C158	UA654100	C. MYLAR 0.01uF 50V(A)
C159	UA654100	C. MYLAR 0.01uF 50V(A)
C161	UA654100	C. MYLAR 0.01uF 50V(A)
C162	UA654100	C. MYLAR 0.01uF 50V(A)
C164	UM416470	C. EL 4.7uF 50V
C165	UK665470	C. EL 0.47uF 50V
C171	UA654100	C. MYLAR 0.01uF 50V(A)
C191	VH053100	C. CE. TUBLR 0.1uF 50V
D101	VN008700	DIODE 1SS270A
D102	VN008700	DIODE 1SS270A
D105	VR253700	DIODE. BRG S1NB20 1A 200V(R)
D106	VM976300	DIODE. ZENR HZS242TD 24V
D107	VM976300	DIODE. ZENR HZS242TD 24V
D108	VS997800	DIODE 1T2
D109	VM975900	DIODE. ZENR HZS162TD 16V
D110	VM975800	DIODE. ZENR HZS152TD 15V
D111	iH001090	DIODE. BRG S4VB20 2.6A 200V
D112	VD631600	DIODE 1SS133, 176, HSS104
D113	VS997800	DIODE 1T2(UCA)
D114	VM975500	DIODE. ZENR HZS12A2TD 12V(R)
D117	VD631600	DIODE 1SS133, 176, HSS104
F101	KB001660	FUSE T1.60A 250V(A)
F101	VS823000	FUSE T5.0A 125V(UCR)
F103	KB001660	FUSE T1.60A 250V(R)
FR101	VK188400	R. FUS 330Ω 1/4W
FR102	VK188400	R. FUS 330Ω 1/4W
FR103	VK189000	R. FUS 1KΩ 1/4W
FR104	VK189000	R. FUS 1KΩ 1/4W
G105	VR463400	TERM. GND D3.5 TP00385
JK101	VY687200	JACK. PHONE JY-6317-02-030 NUT
JK102	VT915000	OUTLET. AC 2P(A)
JK102	VU543100	OUTLET. AC 2P(UCR)
L103	VP575600	COIL 1.5uH
L104	VP575600	COIL 1.5uH
Q101	VP883000	TR 2SA893A D, E

\* New Parts

## RX-496 P.C.B. MAIN

Schm Ref.	PART NO.	Description	
△ Q102	VP883000	TR	2SA893A D, E
△ Q103	VP883000	TR	2SA893A D, E
△ Q104	VP883000	TR	2SA893A D, E
△ Q105	VR325600	TR	2SC2229 O, Y
△ Q106	VR325600	TR	2SC2229 O, Y
△ Q107	iC174020	TR	2SC1740S R, S
△ Q108	iC174020	TR	2SC1740S R, S
△ Q109	VP872700	TR	2SC4488 S, T
△ Q110	VP872700	TR	2SC4488 S, T
△ Q111	VP872600	TR	2SA1708 S, T
△ Q112	VP872600	TR	2SA1708 S, T
Q113	VP883100	TR	2SC1890A D, E
Q114	VP883100	TR	2SC1890A D, E
Q115	VP883000	TR	2SA893A D, E
Q116	iC174020	TR	2SC1740S R, S
Q117	iC174020	TR	2SC1740S R, S
Q118	iC287820	TR	2SC2878 A, B
Q119	iC174020	TR	2SC1740S R, S
△ Q120	iA101521	TR	2SA1015 Y
△ Q121	VN996900	TR	2SC4495
Q122	iC174020	TR	2SC1740S R, S
Q123	VP768300	TR	2SC4466 O, P, Y(R)
Q124	VP883100	TR	2SC1890A D, E(R)
△ Q128	VR402300	TR	2SB647 C, D
△ Q129	VR355900	TR. PAIR	2SA1695/C4468 OPY
△ Q130	VR355900	TR. PAIR	2SA1695/C4468 OPY
Q133	iE000020	FET	2SK30ATM GR
△ R113	HV454470	R. CAR. FP	47 Ω 1/4W
△ R114	HV454470	R. CAR. FP	47 Ω 1/4W
R127	HV456270	R. CAR. FP	2.7K Ω 1/4W
R128	HV456270	R. CAR. FP	2.7K Ω 1/4W
R131	HV456100	R. CAR. FP	1K Ω 1/4W
R132	HV456100	R. CAR. FP	1K Ω 1/4W
R133	HV453470	R. CAR. FP	4.7 Ω 1/4W
R134	HV453470	R. CAR. FP	4.7 Ω 1/4W
R135	HV453470	R. CAR. FP	4.7 Ω 1/4W
R136	HV453470	R. CAR. FP	4.7 Ω 1/4W
△ R137	VU981700	R. MIL. PLAT	0.22 Ω+0.22 3W
△ R138	VU981700	R. MIL. PLAT	0.22 Ω+0.22 3W
△ R145	HL314100	R. MIL. OXD	10 Ω 1W
△ R146	HL314100	R. MIL. OXD	10 Ω 1W
R151	HV454100	R. CAR. FP	10 Ω 1/4W
R152	HV454100	R. CAR. FP	10 Ω 1/4W
R159	VP944500	R. MIL. OXD	390 Ω 1W
R160	VP944500	R. MIL. OXD	390 Ω 1W
△ R163	HL314470	R. MIL. OXD	47 Ω 1W
△ R171	HL315680	R. MIL. OXD	680 Ω 1W
R173	HV456100	R. CAR. FP	1K Ω 1/4W
△ R177	HV453100	R. CAR. FP	1 Ω 1/4W
△ R178	HV454100	R. CAR. FP	10 Ω 1/4W
R179	HV457100	R. CAR. FP	10K Ω 1/4W
R189	HL315680	R. MIL. OXD	680 Ω 1W
R196	HV455100	R. CAR. FP	100 Ω 1/4W

\* New Parts

Schm Ref.	PART NO.	Description	
△ RY101	VK438300	RELAY	DH24D2-OT/M2
△ RY102	VU398500	RELAY	DC LK1AF-12V(UCA)
△ RY102	VY735300	RELAY	DC G5P-1(R)
△ SW101	VV523900	SW. PUSH	PBS-YM-001
△ SW102	VA961800	VOLT. SELCT	ESE-37247-F(R)
△ SW103	VZ361100	SW. SLIDE	SL13B-022-AMC1
△ T101	XC083A00	TRANS. PWR	(UC)
△ T101	XC084A00	TRANS. PWR	(A)
△ T101	XT331A00	TRANS. PWR	(R)
△ TE101	VC313700	TERM. SP	8P
	VJ828000	PIN	IMSA-6024-03E
	BB071360	SCR. TERM	8.3x13
	VR264300	PLATE. GND	
	VP753100	HEAT. SINK	IC-1625-MML
	Ei330166	SCR. BND. HD	3x16 FCRM3-BL
	VY834500	SUPRT	(RA)

\* New Parts

RX-496 P.C.B. INPUT

Schm Ref.	PART NO.	Description		
*	V2059800	P. C. B.	INPUT (UCA)	
*	V2059900	P. C. B.	INPUT (R)	
CB101	VD004500	CN. BS. PIN	2P	
CB102	VK024600	CN. BS. PIN	2P (UCA)	
CB103	VQ961500	CN. BS. PIN	12P	
CB104	VQ963300	CN. BS. PIN	12P	
CB105	Vi878600	CN. BS. PIN	8P	
CB106	VK025200	CN. BS. PIN	8P	
CB107	VU271600	CN	16P	
CB108	VQ963600	CN. BS. PIN	15P	
CB109	VK025500	CN. BS. PIN	11P	
CB110	Vi878900	CN. BS. PIN	11P	
CB111	Vi878400	CN. BS. PIN	6P	
CB112	Vi878000	CN. BS. PIN	2P	
CB114	Vi878000	CN. BS. PIN	2P	
C101	UA652100	C. MYLAR	100pF	50V
C102	UA652220	C. MYLAR	220pF	50V
C103	UA652100	C. MYLAR	100pF	50V
C104	UA652220	C. MYLAR	220pF	50V
C105	VF466800	C. CE. TUBLR	100pF	50V
C106	VF466800	C. CE. TUBLR	100pF	50V
C107	VF466800	C. CE. TUBLR	100pF	50V
C108	VF466800	C. CE. TUBLR	100pF	50V
C109	VF466800	C. CE. TUBLR	100pF	50V
C110	VF466800	C. CE. TUBLR	100pF	50V
C111	VF466700	C. CE. TUBLR	47pF	50V
C112	VF466700	C. CE. TUBLR	47pF	50V
C113	VF466800	C. CE. TUBLR	100pF	50V
C114	VF466800	C. CE. TUBLR	100pF	50V
C115	VF466700	C. CE. TUBLR	47pF	50V
C116	VF466700	C. CE. TUBLR	47pF	50V
C123	VC815000	C. EL	220uF	6.3V
C124	UA653910	C. MYLAR	9100pF	50V
C125	UA653910	C. MYLAR	9100pF	50V
C126	VC815000	C. EL	220uF	6.3V
C127	VJ839200	C. EL	2.2uF	50V
C128	UA653330	C. MYLAR	3300pF	50V
C129	VJ837200	C. EL	47uF	16V
C130	UA654330	C. MYLAR	0.033uF	50V
C131	UA654330	C. MYLAR	0.033uF	50V
C132	UA653330	C. MYLAR	3300pF	50V
C133	VJ837200	C. EL	47uF	16V
C134	VJ839200	C. EL	2.2uF	50V
C137	VH053100	C. CE. TUBLR	0.1uF	50V
C138	VH053100	C. CE. TUBLR	0.1uF	50V
C139	VG722100	C. EL	1uF	50V
C140	VH053100	C. CE. TUBLR	0.1uF	50V
C141	UJ638470	C. EL	470uF	16V
C142	UA652100	C. MYLAR	100pF	50V
C143	UA652100	C. MYLAR	100pF	50V
C144	VJ837200	C. EL	47uF	16V
C145	VJ837200	C. EL	47uF	16V
C147	VJ839000	C. EL	0.47uF	50V

\* New Parts

Schm Ref.	PART NO.	Description		
C148	UA652100	C. MYLAR	100pF	50V
C149	VG291200	C. EL	47uF	50V
C150	VJ839200	C. EL	2.2uF	50V
C151	VG291200	C. EL	47uF	50V
C152	VJ839200	C. EL	2.2uF	50V
C153	UA652100	C. MYLAR	100pF	50V
C155	VJ839000	C. EL	0.47uF	50V
C156	VG290900	C. EL	10uF	50V
C157	FG211470	C. CE	47pF	50V
C158	UA654100	C. MYLAR	0.01uF	50V
C159	UA654100	C. MYLAR	0.01uF	50V
C160	FG211470	C. CE	47pF	50V
C161	VG290900	C. EL	10uF	50V
C162	VH053100	C. CE. TUBLR	0.1uF	50V
C164	VF466800	C. CE. TUBLR	100pF	50V
C165	VF466800	C. CE. TUBLR	100pF	50V
C166	UA655120	C. MYLAR	0.12uF	50V
C167	UA654330	C. MYLAR	0.033uF	50V
C168	UA654330	C. MYLAR	0.033uF	50V
C169	UA655120	C. MYLAR	0.12uF	50V
C170	VG279000	C. CE. TUBLR	820pF	50V
C171	UA654680	C. MYLAR	0.068uF	50V
C172	UA654680	C. MYLAR	0.068uF	50V
C173	VG279000	C. CE. TUBLR	820pF	50V
C201	VF467300	C. CE. TUBLR	0.01uF	16V (UCA)
C203	VF467300	C. CE. TUBLR	0.01uF	16V (UCA)
D101	VM974100	DIODE. ZENR	HZS5B2TD	5.0V
D102	VM975500	DIODE. ZENR	HZS12A2TD	12V
D103	VS132300	LED (re)	SLR-325VCT31	
IC101	XM356A00	IC	NJM2068LD	
IC102	XP894A00	IC	LC78211	
IC104	XF494A00	IC	LB1641	
IC105	XM356A00	IC	NJM2068LD	
JK101	VJ726800	JACK. MNI	(UCA)	
JK102	VJ726800	JACK. MNI	(UCA)	
PJ101	VN308700	JACK. PIN	6P	
PJ102	VV306900	JACK. PIN	4P	
PJ103	VV306900	JACK. PIN	4P	
Q101	VG722000	TR. DGT	DTC144ES	
Q105	VP872700	TR	2SC4488 S, T	
Q106	iC287820	TR	2SC2878 A, B	
Q107	iC287820	TR	2SC2878 A, B	
R123	HV456680	R. CAR. FP	6.8KΩ	1/4W
R153	HV453220	R. CAR. FP	2.2Ω	1/4W
R154	HV453220	R. CAR. FP	2.2Ω	1/4W
R155	HV454100	R. CAR. FP	10Ω	1/4W
R156	HV454100	R. CAR. FP	10Ω	1/4W
R159	HV453470	R. CAR. FP	4.7Ω	1/4W
R168	HL315100	R. MITL. OXD	100Ω	1W
R175	HL315100	R. MITL. OXD	100Ω	1W
SW101	VV399800	SW. PUSH	SPUN12	
VR101	VR710500	VR. MTR	A100KΩ	
VR102	VP741800	VR	B20KΩ	

\* New Parts

RX-396/496



## RX-496 P.C.B. INPUT &amp; TUNER

Schm Ref.	PART NO.	Description		
VR103	VP741900	VR	G25K $\Omega$	
VR104	VP700700	VR	A100K $\Omega$	
VR105	VP742000	VR	MN100K $\Omega$	
	VJ828000	PIN	IMSA-6024-03E(UCA)	
	BB071360	SCR. TERM	8. 3x13(UCA)	
	VR435100	PLATE	W16	
	VV022300	P. C. B.	TUNER(UC)	
	VV022400	P. C. B.	TUNER(R)	
	VV022500	P. C. B.	TUNER(A)	
CB4	VQ961800	CN. BS. PIN	15P	
C1	VG287800	C. EL	330uF	16V
C3	VG275800	C. CE. TUBLR	8. 2pF	50V
C4	VG291200	C. FL	47uF	50V
C5	VF467300	C. CE. TUBLR	0. 01uF	16V
C6	VG288900	C. EL	100uF	25V
C7	VJ839100	C. EL	1uF	50V
C8	VF467300	C. CE. TUBLR	0. 01uF	16V
C9	VF467300	C. CE. TUBLR	0. 01uF	16V
C10	VF467300	C. CE. TUBLR	0. 01uF	16V
C11	VF467000	C. CE. TUBLR	1000pF	50V
C12	VJ836900	C. EL	10uF	16V
C13	VJ836900	C. EL	10uF	16V
C14	VF466800	C. CE. TUBLR	100pF	50V
C15	VF467000	C. CE. TUBLR	1000pF	50V
C16	VF466700	C. CE. TUBLR	47pF	50V
C17	VG291200	C. EL	47uF	50V
C19	VA761200	C. CE	33pF	50V
C20	VG291200	C. EL	47uF	50V
C21	VJ599000	C. CE. TUBLR	0. 047uF	16V
C22	UM216330	C. EL	3. 3uF	50V
C23	VF467300	C. CE. TUBLR	0. 01uF	16V
C24	UM416470	C. EL	4. 7uF	50V
C25	UM216330	C. EL	3. 3uF	50V
C26	VJ836900	C. EL	10uF	16V
C27	VF467300	C. CE. TUBLR	0. 01uF	16V
C28	VA761200	C. CE	33pF	50V
C29	VJ839100	C. EL	1uF	50V
C30	VJ839100	C. EL	1uF	50V
C31	VG291200	C. EL	47uF	50V
C32	VJ839000	C. EL	0. 47uF	50V
C33	VJ839100	C. EL	1uF	50V
C34	UA654470	C. MYLAR	0. 047uF	50V
C35	UM216330	C. EL	3. 3uF	50V
C36	UA652470	C. MYLAR	470pF	50V(A)
C36	UA653100	C. MYLAR	1000pF	50V(UCR)
C37	UA652470	C. MYLAR	470pF	50V(A)
C37	UA653100	C. MYLAR	1000pF	50V(UCR)
C38	VF466900	C. CE. TUBLR	470pF	50V
C39	VJ836900	C. EL	10uF	16V
C40	UM216330	C. EL	3. 3uF	50V

\* New Parts

Schm Ref.	PART NO.	Description		
C41	UA653390	C. MYLAR	3900pF	50V
C42	UM407220	C. EL	22uF	25V
C43	UA653390	C. MYLAR	3900pF	50V
C44	UM216330	C. EL	3. 3uF	50V
C45	VG291200	C. EL	47uF	50V
C46	VG291200	C. EL	47uF	50V
C49	UA652120	C. MYLAR	120pF	50V(A)
C49	UA652470	C. MYLAR	470pF	50V(UCR)
C50	VJ599000	C. CE. TUBLR	0. 047uF	16V
D1	VD631600	DIODE	1SS133, 176, HSS104	
D2	VD631600	DIODE	1SS133, 176, HSS104	
D3	VG437800	DIODE. ZENR	MTZJ5. 6C	5. 6V
Fi1	GG000560	FLTR. CE	SFE10. 7MS3GHY-A	
Fi2	GG000560	FLTR. CE	SFE10. 7MS3GHY-A	
Fi3	VC219000	FLTR. CE	SFZ450JL3	
IC1	XB760A00	IC	LA1266	
IC2	XQ944A00	IC	LC72131	
IC3	iG158100	IC	LA3401	
L1	Vi546100	COIL	220uH	
L2	Vi546100	COIL	220uH	
L3	Vi546100	COIL	220uH	
PK1	VQ987600	TUNER. PK	EXV-17296G1(A)	
PK1	VR242200	TUNER. PK	EXV-17296G1(UCR)	
PK2	VU333700	COIL. RF. AM	940536051A	
Q1	iC053540	TR	2SC535 A, B, C	
Q2	iC053540	TR	2SC535 A, B, C	
Q3	VD678500	TR. DGT	DTA114ES	
Q4	VC218900	TR	2SC3330 R, S, T	
Q5	VG722000	TR. DGT	DTC144ES	
Q6	iC1815C0	TR	2SC1815 Y	
Q7	VD678500	TR. DGT	DTA114ES	
SW1	VS602600	SW. SLIDE	SS070-P022 A(R)	
T1	VC218600	COIL. DT. FM	10. 7MHz	
T2	VR895700	COIL. IF	450KHz	
T3	VT486800	COIL	XYA2(A)	
T4	VQ138200	FLTR. LC	19KHz	
T5	VQ138200	FLTR. LC	19KHz	
TE1	VU477800	TERM. ANT	AJ-2038-040	
TP1	VT969000	PIN. TEST	IRS-2049	
TP2	VT969000	PIN. TEST	IRS-2049	
VR1	VJ694000	VR. TRIM	B47K $\Omega$	
VR2	VJ694000	VR. TRIM	B47K $\Omega$	
XL1	QU003800	RSNR. CRYST	7. 2MHz	
XL2	GG000750	RSNR. CE	18. 95KHz	
	BB071360	SCR. TERM	8. 3x13	
	VR282500	PLATE	ANT.	

\* New Parts

A

B

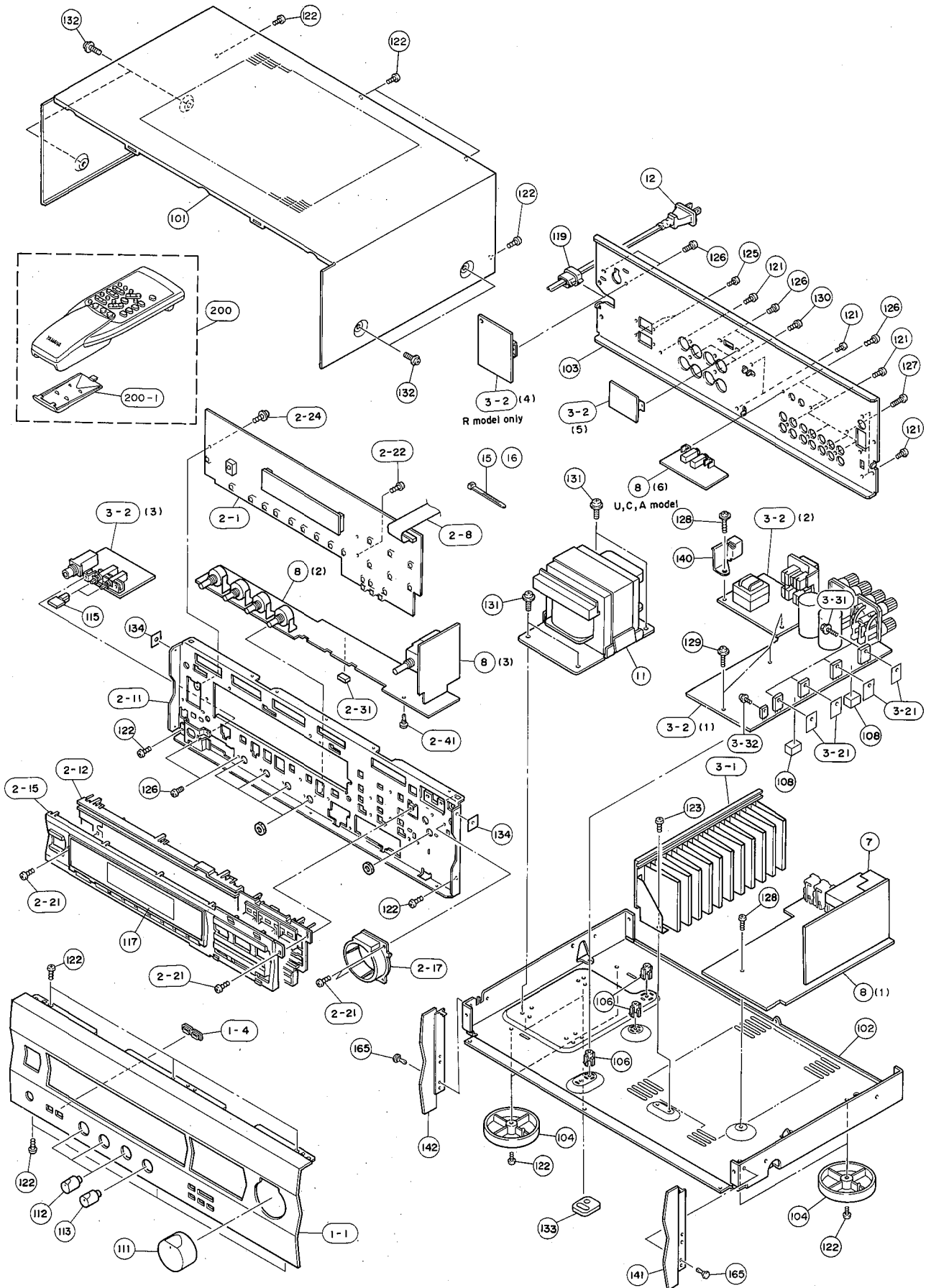
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D

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# 1 ■ RX-396 EXPLODED VIEW



2

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7

■ RX-396 MECHANICAL PARTS

Ref. No.	PART NO.	Description	Remarks	Markets
* 1- 1	VZ702100	FRONT PANEL		BL
* 1- 1	VZ782400	FRONT PANEL		TI
1- 4	VV123700	ESCUTCHEON, 3/8	2P	BL
1- 4	VV123800	ESCUTCHEON, 3/8	2P	TI
* 2- 1	V2054400	P. C. B. ASS'Y	OPERATION	(UC)
* 2- 1	V2054500	P. C. B. ASS'Y	OPERATION	(R)
* 2- 1	V2054600	P. C. B. ASS'Y	OPERATION	(GA)
* 2- 1	V2207500	P. C. B. ASS'Y	OPERATION	(A)
* 2- 8	MF116200	FLEXIBLE FLAT CABLE	16P 200mm	
* 2-11	VZ701700	SUB CHASSIS		
* 2-12	VZ702700	BUTTON CASE 6		BL
* 2-12	VZ702800	BUTTON CASE 6		TI
* 2-15	VZ702900	SUB PANEL CASE 6		BL
* 2-15	VZ703000	SUB PANEL CASE 6		TI
2-17	VV149500	ESCUTCHEON, VOL		BL
2-17	VV149600	ESCUTCHEON, VOL		TI
2-21	Ei330086	BIND HEAD B-TITE SCREW	3x8 FCRM3-BL	
2-22	EP630220	BIND HEAD P-TITE SCREW	3x8 ZMC2-BL	
2-24	VT669300	PW HEAD B-TITE SCREW	3x8-8 MFC2	
2-31	VZ092400	DAMPER	6x5x10	
2-41	VQ368500	PUSH RIVET	P3545-B	
* 3- 1	VZ702500	HEAT SINK ASS'Y		
* 3- 2	V2055100	P. C. B. ASS'Y	MAIN	
* 3- 2	V2055200	P. C. B. ASS'Y	MAIN	(R)
* 3- 2	V2055300	P. C. B. ASS'Y	MAIN	(A)
* 3- 2	V2055400	P. C. B. ASS'Y	MAIN	(G)
* 3-21	VK195900	SHEET	19x24	
3-31	VK173200	SCREW, TRANSISTOR	3x15 SP FCM3	
3-32	Ei330086	BIND HEAD B-TITE SCREW	3x8 FCRM3-BL	
7	VV022300	P. C. B. ASS'Y	TUNER	(UC)
7	VV022400	P. C. B. ASS'Y	TUNER	(R)
7	VV022500	P. C. B. ASS'Y	TUNER	(AG)
* 8	V2054800	P. C. B. ASS'Y	INPUT	(UCA)
* 8	V2054900	P. C. B. ASS'Y	INPUT	(RG)
△ * 11	XU561A00	POWER TRANSFORMER		(U)
△ * 11	XU562A00	POWER TRANSFORMER		(C)
△ * 11	XU563A00	POWER TRANSFORMER		(R)
△ * 11	XU564A00	POWER TRANSFORMER		(A)
△ * 11	XU565A00	POWER TRANSFORMER		(G)
△ 12	V2296800	POWER CORD ASS'Y		(A)
△ 12	VL238100	POWER CORD ASS'Y		(R)
△ 12	VN363700	POWER CORD ASS'Y		(G)
△ 12	VV437200	POWER CORD ASS'Y		(UC)
15	VU590000	BINDING TIE	CBTD001B	
16	VZ625600	BINDING TIE	SE140 L=140	
101	VV140400	TOP COVER		BL
101	VV140500	TOP COVER		TI
102	VQ794000	CHASSIS		
* 103	VZ556900	REAR PANEL		(U)
* 103	VZ557000	REAR PANEL		(C)
* 103	VZ557100	REAR PANEL		(R)
* 103	VZ557200	REAR PANEL		(A)
* 103	VZ557800	REAR PANEL		(G)

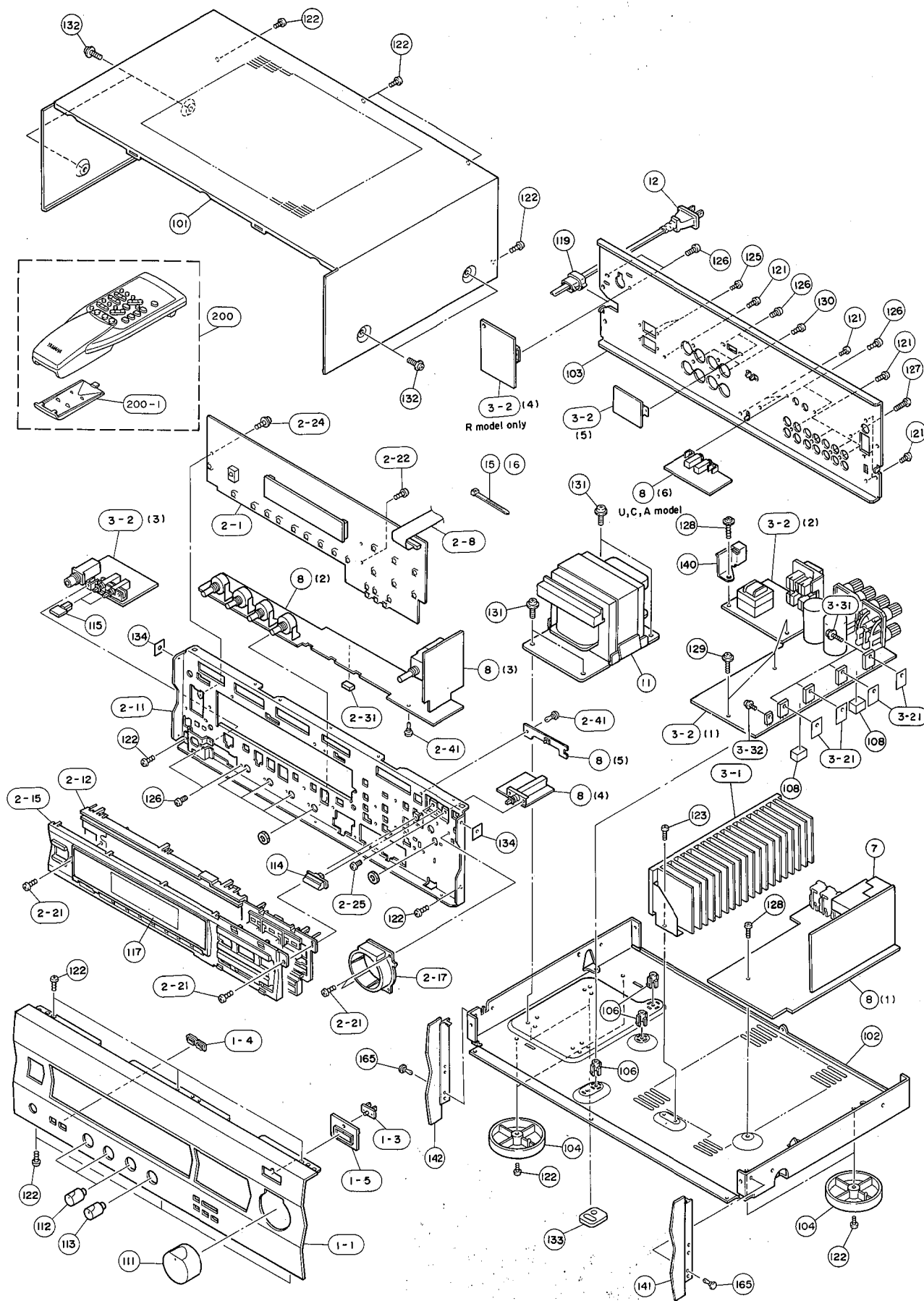
\* New Parts

Ref. No.	PART NO.	Description	Remarks	Markets
104	VS025000	LEG	D60xH21	
106	VR264400	SPACER	H8	
108	VQ366100	DAMPER, PCB		
111	VV148800	KNOB	D40	BL
111	VV148900	KNOB	D40	TI
112	VV311000	KNOB	D14	BL
112	VV311400	KNOB	D14	TI
113	VZ529900	KNOB	D14L	BL
* 113	VZ530000	KNOB	D14L	TI
115	VV123500	BUTTON, 3/8		BL
115	VV123600	BUTTON, 3/8		TI
* 117	VZ702600	SHEET, WINDOW		
119	VN158600	CORD STOPPER	No. 2104	
121	VN413300	BIND HEAD BONDING B-T. SCREW	3x8 MFZN2-BL	
122	Ei330086	BIND HEAD B-TITE SCREW	3x8 FCRM3-BL	
123	Ei030046	BIND HEAD TAPPING SCREW	3x4 ZMC2-Y	
125	Ei030086	BIND HEAD B-TITE SCREW	3x8 ZMC2-Y	
126	ED330066	BIND HEAD SCREW	3x6 FCRM3-BL	
127	VS997700	BIND HEAD S-TITE SCREW	3x10 MFNI33	
128	VT669300	PW HEAD B-TITE SCREW	3x8-8 MFC2	
129	VT669400	PW HEAD B-TITE SCREW	3x15-8 MFC2	
130	VY731200	BONDING HEAD TAPPING SCREW	3x10 MFNI33	
131	EK365090	PW HEAD S-TITE SCREW	4x8-10 FCRM3-BL	
132	EK365090	PW HEAD S-TITE SCREW	4x8-10 FCRM3-BL	BL
132	EX601150	BW HEAD S-TITE SCREW	4x8-10 FNM3-BL	TI
133	VY731400	DAMPER	HOLE	
134	VY989400	DAMPER	SIDE	
140	VZ319700	STOPPER	SCREW	(RAG)
141	VV124500	PLATE SIDE R	130	BL
141	VV124600	PLATE SIDE R	130	TI
142	VV124300	PLATE SIDE L	130	BL
142	VV124400	PLATE SIDE L	130	TI
165	VQ368600	PUSH RIVET	P3555-B	
* 200	VZ453500	ACCESSORIES		
* 200-1	CX679050	REMOTE CONTROL TRANSMITTER	SBGH20035A RAX7	
	VQ147100	LID	74x34BLALPS	
	VR248500	ANTENNA, FM	1P 1.4m	
	VT948000	ANTENNA, AM LOOP	1P 1.0m	
		ANTENNA ADAPTER		
		BATTERY, MANGANESE	SUM-3, AA, R06	

\* New Parts

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**■ RX-496 MECHANICAL PARTS**

Ref. No.	PART NO.	Description	Remarks	Markets
* 1- 1	VZ701800	FRONT PANEL		
1- 3	VV185600	LENS, LED	D2	
1- 4	VV123700	ESCUTCHEON, 3/8	2P	
1- 5	VV185400	ESCUTCHEON	8x26	
* 2- 1	V2054400	P.C.B. ASS'Y	OPERATION	(UC)
* 2- 1	V2054500	P.C.B. ASS'Y	OPERATION	(R)
* 2- 1	V2207500	P.C.B. ASS'Y	OPERATION	(A)
2- 8	MF116200	FLEXIBLE FLAT CABLE	16P 200mm	
* 2-11	VZ701700	SUB CHASSIS		
* 2-12	VZ702700	BUTTON CASE 6		
* 2-15	VZ702900	SUB PANEL CASE 6		
2-17	VV149500	ESCUTCHEON, VOL		
2-21	Ei330086	BIND HEAD B-TITE SCREW	3x8	FCRM3-BL
2-22	EP630220	BIND HEAD P-TITE SCREW	3x8	ZMC2-BL
2-24	VT669300	PW HEAD B-TITE SCREW	3x8-8	MFC2
2-25	ED330066	BIND HEAD SCREW	3x6	FCRM3-BL
2-31	VZ092400	DAMPER	6x5x10	
2-41	VQ368500	PUSH RIVET	P3545-B	
3- 1	VQ967700	HEAT SINK ASS'Y		
* 3- 2	V2060100	P.C.B. ASS'Y	MAIN	(UC)
* 3- 2	V2060200	P.C.B. ASS'Y	MAIN	(R)
* 3- 2	V2060300	P.C.B. ASS'Y	MAIN	(A)
3-21	VK195900	SHEET	19x24	
3-21	VK173200	SCREW, TRANSISTOR	3x15 SP	FCM3
3-42	Ei330086	BIND HEAD B-TITE SCREW	3x8	FCRM3-BL
7	VV022300	P.C.B. ASS'Y	TUNER	(UC)
7	VV022400	P.C.B. ASS'Y	TUNER	(R)
7	VV022500	P.C.B. ASS'Y	TUNER	(A)
* 8	V2059800	P.C.B. ASS'Y	INPUT	(UCA)
* 8	V2059900	P.C.B. ASS'Y	INPUT	(R)
△ * 11	XU571A00	POWER TRANSFORMER		(U)
△ * 11	XU572A00	POWER TRANSFORMER		(C)
△ * 11	XU573A00	POWER TRANSFORMER		(R)
△ * 11	XU574A00	POWER TRANSFORMER		(A)
△ 12	V2296800	POWER CORD ASS'Y		(A)
△ 12	VL238100	POWER CORD ASS'Y		(R)
△ 12	VV437200	POWER CORD ASS'Y		(UC)
15	VU590000	BINDING TIE	CBTD001B	
16	VZ625600	BINDING TIE	SE140 L=140	
101	VV140400	TOP COVER		
102	VQ794000	CHASSIS		
* 103	VZ556300	REAR PANEL		(U)
* 103	VZ556400	REAR PANEL		(C)
* 103	VZ556500	REAR PANEL		(R)
* 103	VZ556600	REAR PANEL		(A)
104	VS025000	LEG	D60xH21	
106	VR264400	SPACER	H8	
108	VQ366100	DAMPER, PCB		
111	VV148800	KNOB	D40	
112	VV311000	KNOB	D14	
113	VZ529900	KNOB	D14L	
114	VV185200	BUTTON	8x26	
115	VV123500	BUTTON, 3/8		

\* New Parts

Ref. No.	PART NO.	Description	Remarks	Markets
* 117	VZ702600	SHEET, WINDOW		
119	VN158000	CORD STOPPER	No. 2104	
121	VN413300	BIND HEAD BONDING B-T. SCREW	3x8 MFZN2-BL	
122	Ei330086	BIND HEAD B-TITE SCREW	3x8 FCRM3-BL	
123	Ei030046	BIND HEAD TAPPING SCREW	3x4 ZMC2-Y	
125	Ei030086	BIND HEAD B-TITE SCREW	3x8 ZMC2-Y	
126	ED330066	BIND HEAD SCREW	3x6 FCRM3-BL	
127	VS997700	BIND HEAD S-TITE SCREW	3x10 MFNI33	
128	VT669300	PW HEAD B-TITE SCREW	3x8-8 MFC2	
129	VT669400	PW HEAD B-TITE SCREW	3x15-8 MFC2	
130	VY731200	BONDING HEAD TAPPING SCREW	3x10 MFNI33	
131	EK365090	PW HEAD S-TITE SCREW	4x8-10 FCRM3-BL	
132	EK365090	PW HEAD S-TITE SCREW	4x8-10 FCRM3-BL	
133	VY731400	DAMPER	HOLE	
134	VY989400	DAMPER	SIDE	
140	VZ319700	STOPPER	SCREW	(RA)
141	VV124500	PLATE SIDE R	130	
142	VV124300	PLATE SIDE L	130	
165	VQ368600	PUSH RIVET	P3555-B	
		ACCESSORIES		
* 200	VZ453500	REMOTE CONTROL TRANSMITTER	SBGH20035A RAX7	
200-1	CX679050	LID	74x34BLALPS	
	VQ147100	ANTENNA, FM	1P 1.4m	
	VR248500	ANTENNA, AM LOOP	1P 1.0m	
	VT948000	ANTENNA ADAPTER		
		BATTERY, MANGANESE	SUM-3, AA, R06	

\* New Parts

A B C D E

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# REMOTE CONTROL TRANSMITTER

## ■ SCHEMATIC DIAGRAM

The schematic diagram illustrates the internal circuitry of the remote control transmitter. It features a central IC1,  $\mu$ PD6600AGS-A69, which is connected to various push-buttons (K1-K29) and LEDs (D1). The circuit includes a 28C1741 IR transmitter, a 1.5V battery, and several passive components like resistors (R1, R2) and capacitors (C1-C5). The IC1 pins are labeled K1/O1 through K13/O3, S-IN, S-CUT, REM, Vdd, OSC-OUT, OSC-IN, VSS, and AC. The push-buttons are labeled with functions such as INPUT PHONO, SLEEP, POWER, VOLUME +, VOLUME -, INPUT CD, CD PLAY, CD SKIP, CD DISC SKIP, CD PAUSE/STOP, CD SEARCH, INPUT TUNER, TUNER A/B/C/D/E, TUNER PRESET +, TUNER PRESET -, INPUT TAPE 1, TAPE DIR B, TAPE DECK A/B, TAPE DIR A, INPUT TAPE 2, TAPE PLAY, TAPE STOP, TAPE REC/PAUSE, and INPUT AUX. Two LEDs, D1 (2/2) and D1 (1/2), are connected to the transmitter output.

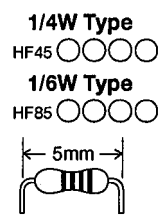
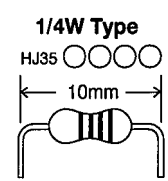
The photograph shows the physical Yamaha remote control transmitter. It is a handheld device with a speaker grille at the bottom and a control panel at the top. The control panel includes buttons for DIR A, DIR B, REW/TUNE, PLAY, TAPE 2, TAPE 1, PRESET +, A/B/C/D/E, TUNER, CD, PAUSE, CD SEARCH, SLEEP, STANDBY/ON, VOLUME, and TAPE STOP. The Yamaha logo is visible at the bottom of the device.

Key No.	Function	HEX	
		CUSTOM	DATA
1	INPUT PHONO	7A	14
3	SLEEP	7A	57
4	POWER	7A	1F
5	INPUT CD	7A	15
6	CD PLAY	7A	08
7	CD SKIP >>>	7A	0A
8	CD SKIP <<<	7A	0B
9	CD DISC SKIP	7A	4F
10	CD PAUSE/STOP	7A	09
11	CD SEARCH >>	7A	0C
12	CD SEARCH <<	7A	0D
13	INPUT TUNER	7A	16
14	TUNER A/B/C/D/E	7A	12
15	TUNER PRESET +	7A	10
16	TUNER PRESET -	7A	11
17	INPUT TAPE 1	7A	18
18	TAPE DIR B	7A	40
19	TAPE DECK A/B	7A	06
20	TAPE DIR A	7A	07
21	INPUT TAPE 2	7A	19
22	TAPE >>	7A	02
23	TAPE PLAY	7A	00
24	TAPE <<	7A	01
27	TAPE STOP	7A	03
28	TAPE REC/PAUSE	7A	04
29	INPUT AUX	7A	17
33	VOLUME +	7A	1A
34	VOLUME -	7A	1B

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# Parts List for Carbon Resistors

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	HJ35 3100	HF85 3100	10 kΩ	HF45 7100	HF45 7100
1.8 Ω	HJ35 3180	*	11 kΩ	HF45 7110	HF45 7110
2.2 Ω	HJ35 3220	HF85 3220	12 kΩ	HJ35 7120	HF85 7120
3.3 Ω	HJ35 3330	HF85 3330	13 kΩ	HF45 7130	HF45 7130
4.7 Ω	HJ35 3470	HF85 3470	15 kΩ	HF45 7150	HF45 7150
5.6 Ω	HJ35 3560	HF85 3560	18 kΩ	HF45 7180	HF45 7180
10 Ω	HF45 4100	HF45 4100	22 kΩ	HF45 7220	HF45 7220
15 Ω	HJ35 4150	HF85 4150	24 kΩ	HF45 7240	HF45 7240
22 Ω	HF45 4220	HF45 4220	27 kΩ	HJ35 7270	HF85 7270
27 Ω	HJ35 4270	HF85 4270	30 kΩ	HF45 7300	HF45 7300
33 Ω	HF45 4330	HF45 4330	33 kΩ	HF45 7330	HF45 7330
39 Ω	HJ35 4470	HF85 4390	36 kΩ	HF45 7360	HF45 7360
47 Ω	HF45 4470	HF45 4470	39 kΩ	HF45 7390	HF45 7390
56 Ω	HF45 4560	HF45 4560	47 kΩ	HF45 7470	HF45 7470
68 Ω	HF45 4680	HF45 4680	51 kΩ	HF45 7510	HF45 7510
75 Ω	HF45 4750	HF45 4750	56 kΩ	HF45 7560	HF45 7560
82 Ω	HF45 4820	HF45 4820	62 kΩ	HF45 7620	HF45 7620
91 Ω	HF45 4910	HF45 4910	68 kΩ	HF45 7680	HF45 7680
100 Ω	HF45 5100	HF45 5100	82 kΩ	HF45 7820	HF45 7820
110 Ω	HJ35 5110	HF85 5110	91 kΩ	HF45 7910	HF45 7910
120 Ω	HF45 5120	HF45 5120	100 kΩ	HF45 8100	HF45 8100
150 Ω	HF45 5150	HF45 5150	110 kΩ	HF45 8110	HF45 8110
160 Ω	HJ35 5160	*	120 kΩ	HF45 8120	HF45 8120
180 Ω	HF45 5180	HF45 5180	150 kΩ	HF45 8150	HF45 8150
200 Ω	HF45 5200	HF45 5200	180 kΩ	HF45 8180	HF45 8180
220 Ω	HF45 5220	HF45 5220	220 kΩ	HJ35 8220	HF85 8220
270 Ω	HF45 5270	HF45 5270	270 kΩ	HF45 8270	HF45 8270
330 Ω	HF45 5330	HF45 5330	300 kΩ	HF45 8300	HF45 8300
390 Ω	HF45 5390	HF45 5390	330 kΩ	HF45 8330	HF45 8330
430 Ω	HF45 5430	HF45 5430	390 kΩ	HJ35 8390	HF85 8390
470 Ω	HF45 5470	HF45 5470	470 kΩ	HF45 8470	HF45 8470
510 Ω	HF45 5510	HF45 5510	560 kΩ	HJ35 8560	HF85 8560
560 Ω	HF45 5560	HF45 5560	680 kΩ	HJ35 8680	HF85 8680
680 Ω	HF45 5680	HF45 5680	820 kΩ	HJ35 8820	HF85 8820
820 Ω	HF45 5820	HF45 5820	1.0 MΩ	HF45 9100	HF45 9100
910 Ω	HF45 5910	HF45 5910	1.2 MΩ	HJ35 9120	*
1.0 kΩ	HF45 6100	HF45 6100	1.5 MΩ	HJ35 9150	HF85 9150
1.2 kΩ	HF45 6120	HF45 6120	1.8 MΩ	HJ35 9180	HF85 9180
1.5 kΩ	HF45 6150	HF45 6150	2.2 MΩ	HJ35 9220	HF85 9220
1.8 kΩ	HF45 6180	HF45 6180	3.3 MΩ	HJ35 9330	HF85 9330
2.0 kΩ	HJ35 6200	HF85 6200	3.9 MΩ	HJ35 9390	*
2.2 kΩ	HF45 6220	HF45 6220	4.7 MΩ	HJ35 9470	HF85 9470
2.4 kΩ	HJ35 6240	HF85 6240			
2.7 kΩ	HF45 6270	HF45 6270			
3.0 kΩ	HF45 6300	HF45 6300			
3.3 kΩ	HF45 6330	HF45 6330			
3.6 kΩ	HJ35 6360	HF85 6360			
3.9 kΩ	HF45 6390	HF45 6390			
4.7 kΩ	HF45 6470	HF45 6470			
5.1 kΩ	HF45 6510	HF45 6510			
5.6 kΩ	HF45 6560	HF45 6560			
6.8 kΩ	HF45 6680	HF45 6680			
8.2 kΩ	HF45 6820	HF45 6820			
9.1 kΩ	HF45 6910	HF45 6910			



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