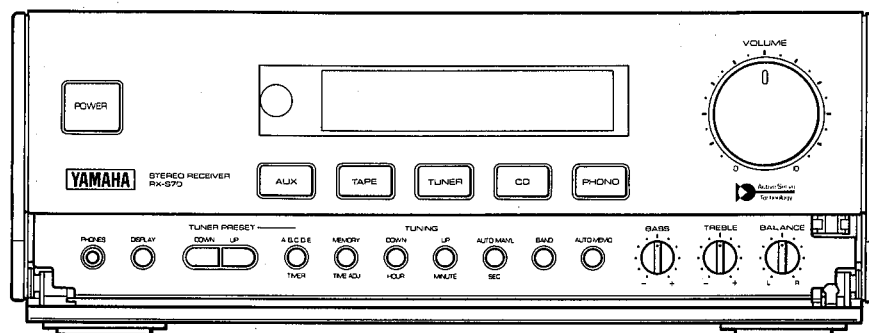
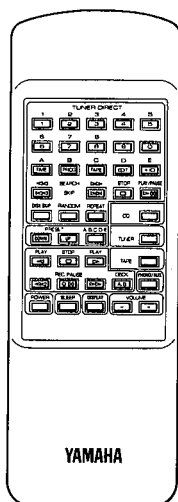


STEREO RECEIVER

RX-S70

SERVICE MANUAL

RX-S70 is a receiver designed for COMPACT SYSTEM CC-70S/W.



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.

- System CC-70W is composed of RX-S70, CDC-S90, KXW-S70 and NX-S70.
- System CC-70S is composed of RX-S70, CDC-S90, KX-S90 and NX-S70.

Model	Manual No.
RX-S70	100465
CDC-S90	100466
KXW-S70	100467
KX-S90	100468
NX-S70	100469

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100465

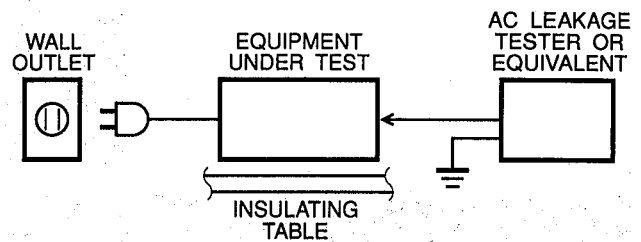
YAMAHA
YAMAHA CORPORATION
P.O.Box 1, Hamamatsu, Japan

3.2K-843 ☐ ㊤ Printed in Japan '93.8

RX-S70

■ TO SERVICE PERSONNEL

1. Critical Components Information.
Components having special characteristics are marked 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 μ F.
 - Leakage current must not exceed 0.5mA.
 - Be sure to test for leakage with the AC plug in both polarities.



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.

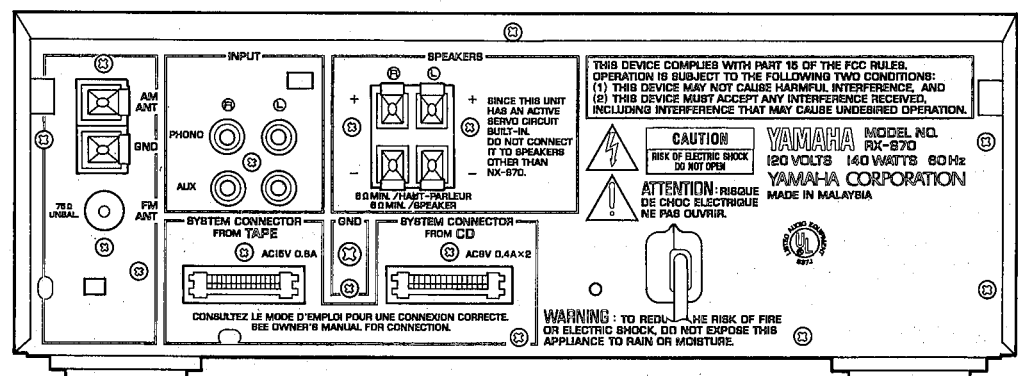
DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

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

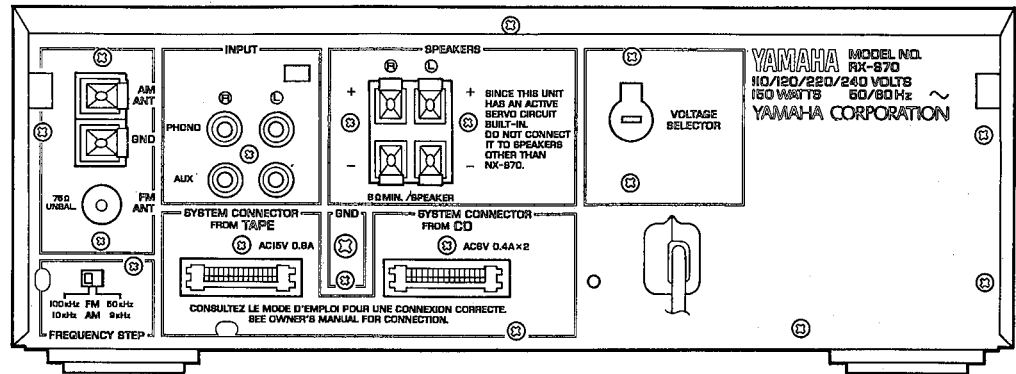
If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

■ REAR PANELS

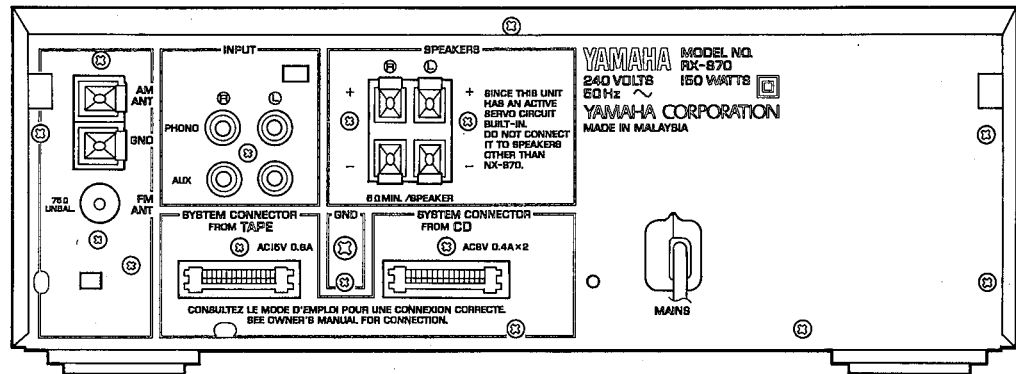
▼ U, C models



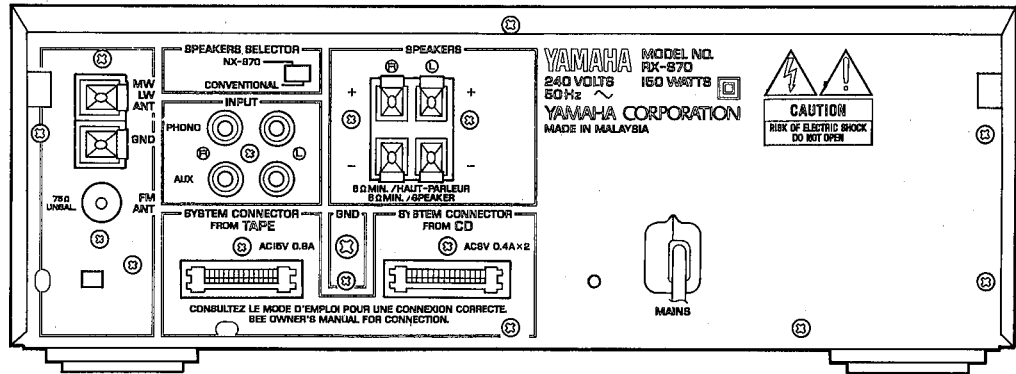
▼ R model



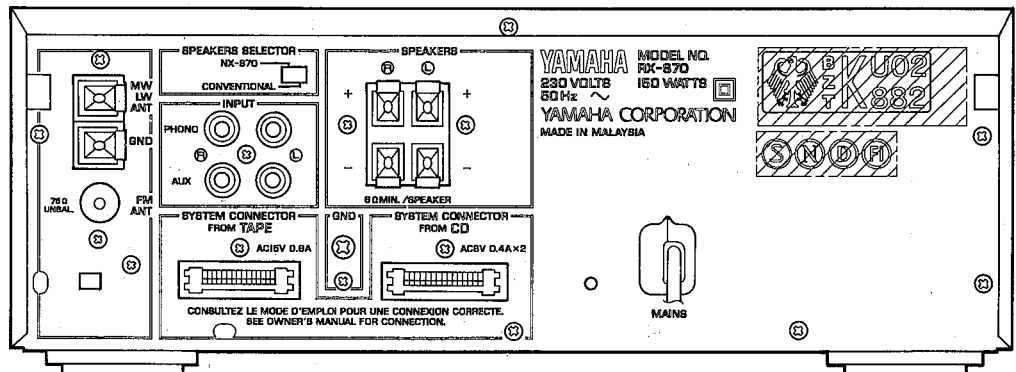
▼ A model



▼ B model



▼ G model



RX-S70

SPECIFICATIONS

AUDIO SECTION

Minimum RMS Output Power per Channel	
6Ω, 20Hz to 20kHz, 0.04% THD	50W
6Ω, 1kHz, 10% THD	
U, C, R models	75W
DIN Standard Output Power per Channel	
1kHz, 1% THD, 4Ω/6Ω	
G model only	65W/60W
IEC Power (1kHz, 0.1% THD, 6Ω)	
G model only	60W
Input Sensitivity/Impedance	
PHONO MM	2.5mV/47kΩ
AUX	150mV/25kΩ
Headphone Output Impedance	
	68Ω
Total Harmonic Distortion (20Hz to 20kHz)	
AUX to SP OUT (25W/6Ω)	0.04%
Signal-to-Noise Ratio (IHF-A Network)	
AUX (Shorted)	102dB
Tone Control Characteristics	
BASS : Boost/cut	0±10dB (50Hz)
TREBLE : Boost/cut	0±10dB (20kHz)

FM SECTION

Tuning Range	
U, C models	87.5 to 107.9MHz
A, B, G, R models	87.50 to 108.00MHz
R model	87.5 to 108.0MHz
Usable Sensitivity (75Ω)	
(30dB S/N Quieting, MONO, 1kHz, 100% mod.)	
Except G model	1.2μV (12.8dBf)
DIN, Mono (S/N 26dB) G model	1.5μV

AM SECTION

Tuning Range	
U, C, R models	530 to 1,710kHz
A, B, G, R models	531 to 1,611kHz
Usable Sensitivity	
	280μV/m

LW SECTION (B, G only)

Tuning Range	153 to 288kHz
Usable Sensitivity	560μV/m

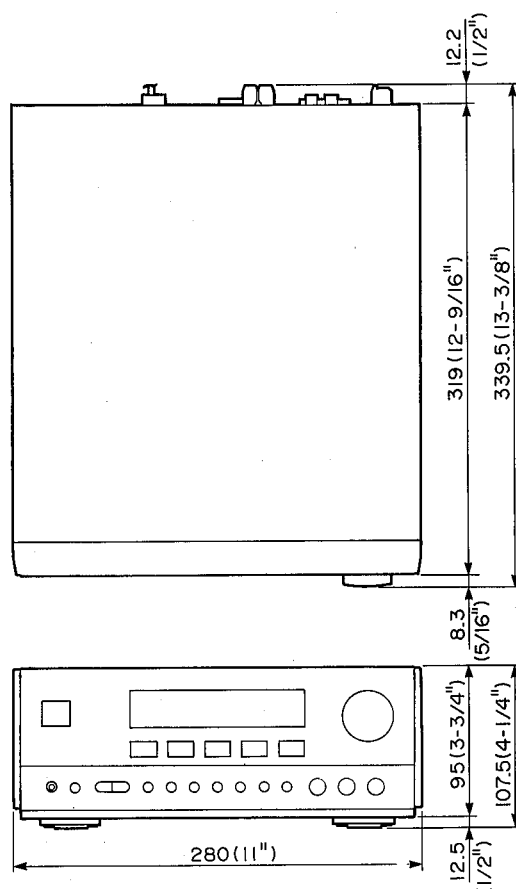
GENERAL

Power Supply	
U, C models	AC 120V, 60Hz
A, B models	AC 240V, 50Hz
G model	AC 230V, 50Hz
R model	AC 110/120/220/240V, 60/50Hz
Power Consumption	
U, C models	140W
A, B, G, R models	150W
Dimensions (W x H x D)	
	280 x 107.5 x 339.5mm (11" x 4-1/4" x 13-3/8")
Weight	
	6 kg (13 lbs. 3 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.

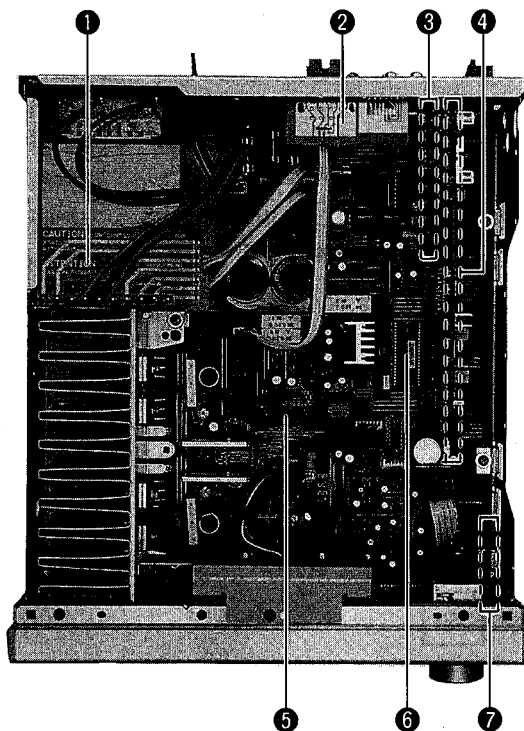
U USA model	B British model
C Canadian model	G European model
A Australian model	R General model

DIMENSIONS



Units : mm (inch)

■ INTERNAL VIEW



- ① MAIN P.C.B. ASS'Y (3)
- ② MAIN P.C.B. ASS'Y (4)
- ③ MAIN P.C.B. ASS'Y (2)
- ④ SUB P.C.B. ASS'Y (1)
- ⑤ MAIN P.C.B. ASS'Y (1)
- ⑥ 8-bit μ -COM (IC210 : M37471M8)
- ⑦ SUB P.C.B. ASS'Y (4)

■ DISASSEMBLY PROCEDURES

(Remove parts in the order as numbered.)

1. Removal of Top Cover

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

2. Removal of Front Panel Unit

- a. Remove the VOLUME knob.
- b. Remove 1 nut (③) in Fig. 1.
- c. Remove 4 screws (④) and 2 screws (⑤) in Fig. 1.
- d. Remove 2 hooks and pull the Front Panel Unit in Fig. 1.

3. Main P.C.B. Check and Part Replacement

- a. Remove 5 screws fixing the Rear Panel.
- b. Remove 4 screws fixing the Main P.C.B..
- c. With the Main P.C.B. placed on its side as shown in Fig. 2, install the Front Panel unit.

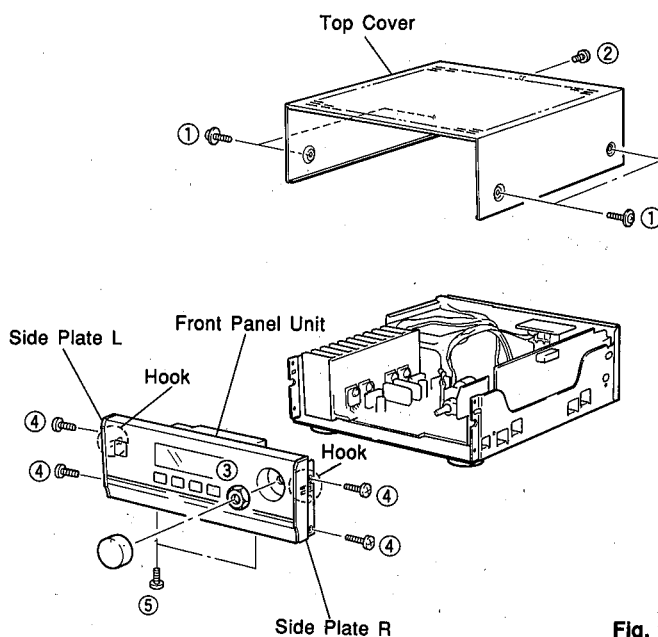


Fig. 1

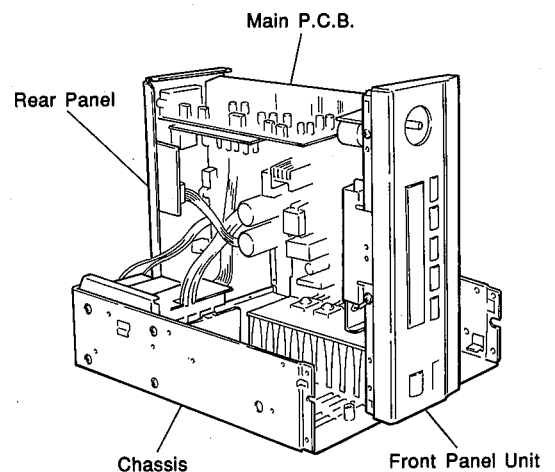


Fig. 2

■ ADJUSTMENT IN POWER AMPLIFIER SECTION

● Before Adjustment

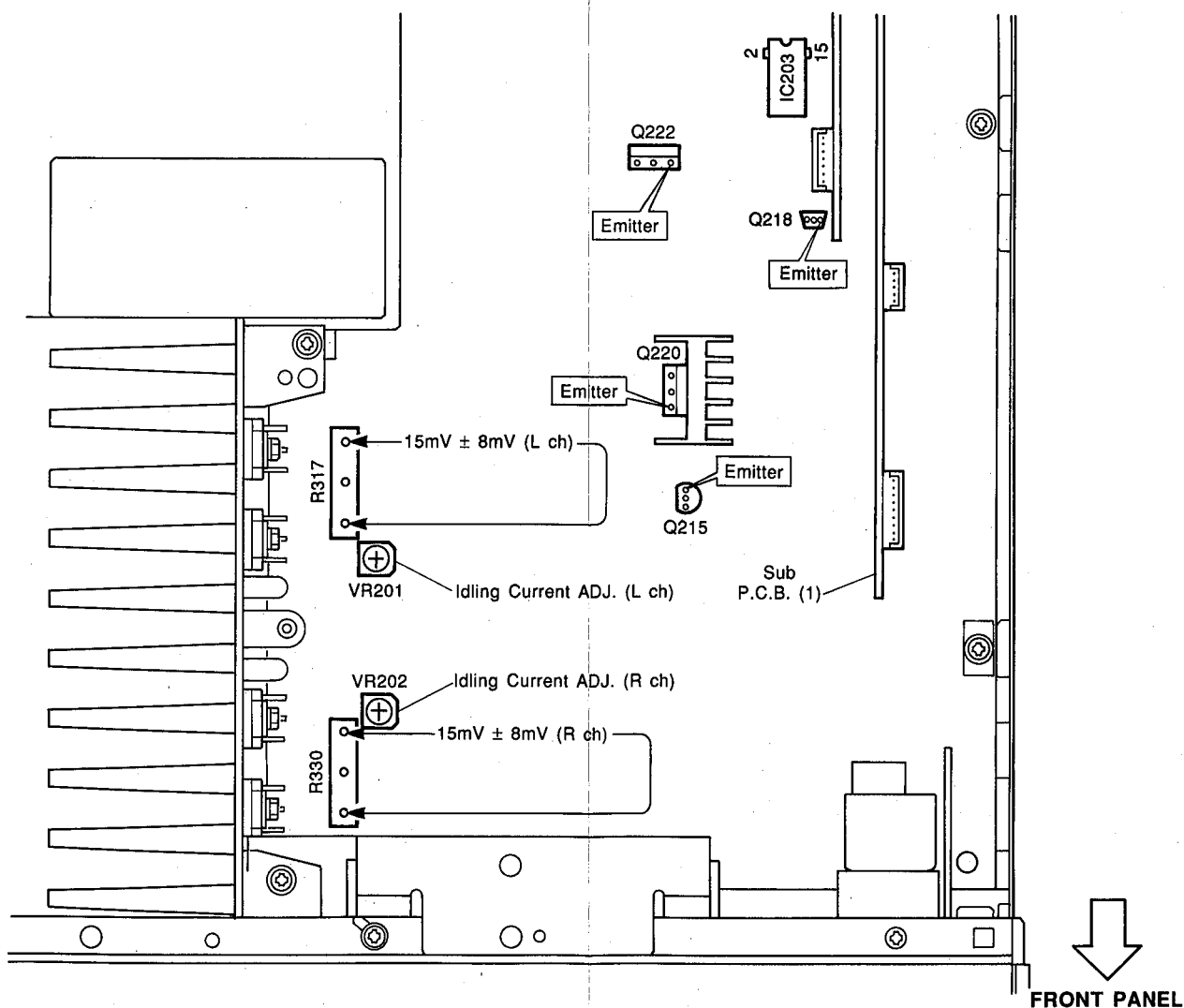
Check the power voltage according to the table below.

Check Item	Test Point	Rating
+12	Emitter of Q220	+12V $\pm$ 1V
-12	Emitter of Q222	-12V $\pm$ 1V
+5.6	Emitter of Q215	+5.6V $\pm$ 1V
+5.6	Emitter of Q218	+5.6V $\pm$ 1V

Idling Current Adjustment

For this adjustment, wait for 10 minutes with no signal applied after the power is turned ON.

Item	Test Point	Adjusted points	Rating (DC)
L ch	Between both terminals of R317	VR201	15mV $\pm$ 8mV
R ch	Between both terminals of R330	VR202	

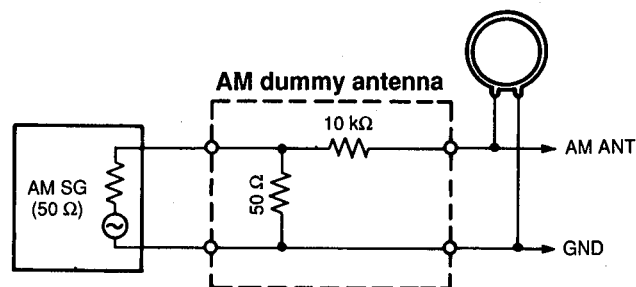
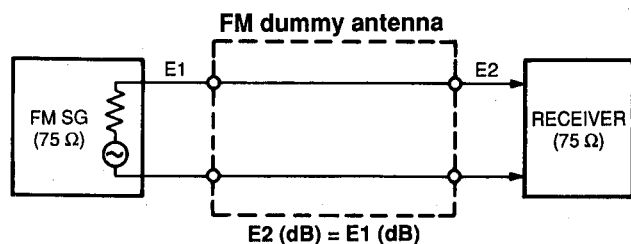
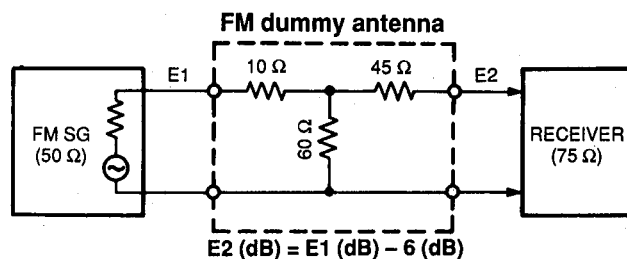


■ ADJUSTMENT IN TUNER SECTION

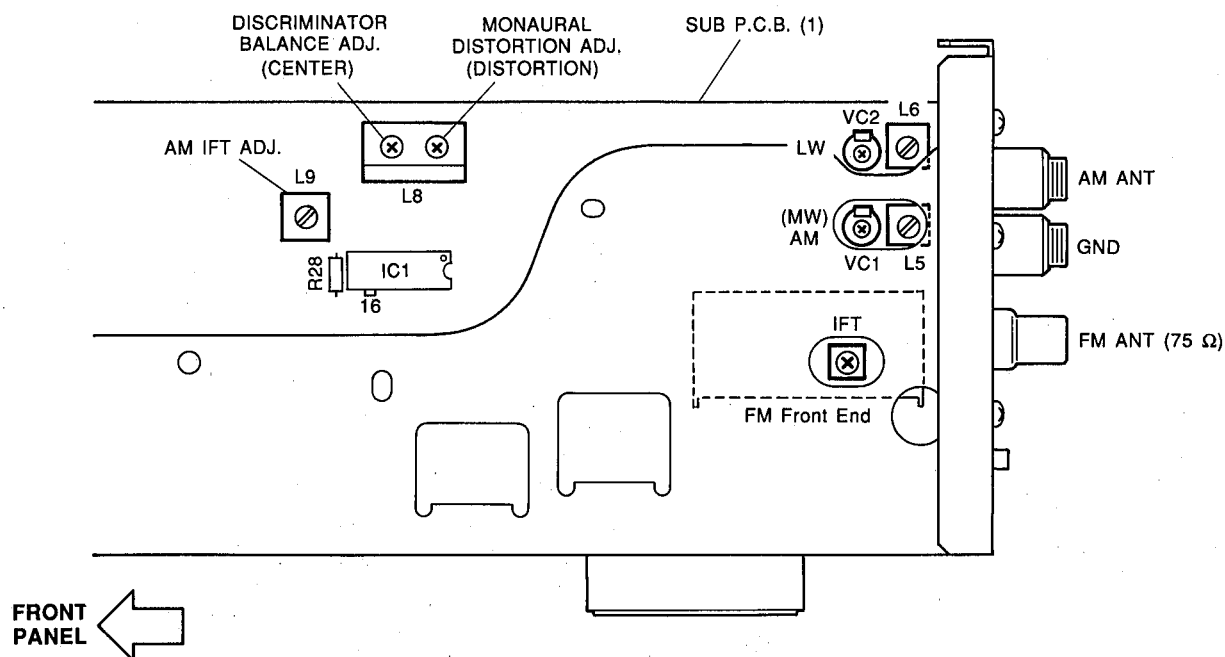
● Measuring Instruments

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, $f_c=15\text{kHz}$)
 Low frequency oscillator

● Dummy antenna



● Adjustment points



FM Adjustment

● Before Adjustment

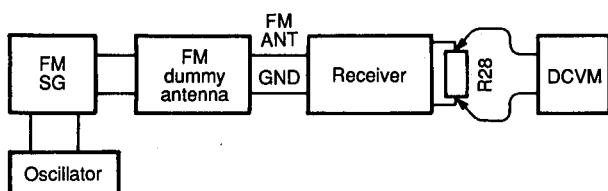
- 1) For dB, $1\mu V = 0dB\mu$ applies.
Example : $60dB\mu = 1mV$
- 2) 100% modulation means that the frequency deviation is 75kHz.
- 3) Install the Matching Transformer and connect FM SG.

- 4) Set each switch at the following position unless otherwise specified.

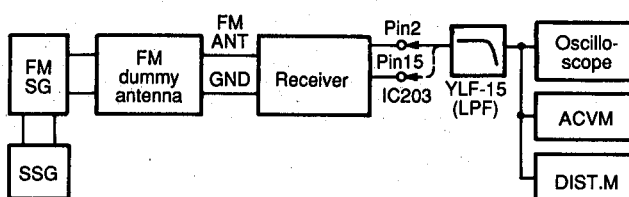
INPUT SELECTOR TUNER
TUNING MODE AUTO

● Connection diagram (Measuring instruments)

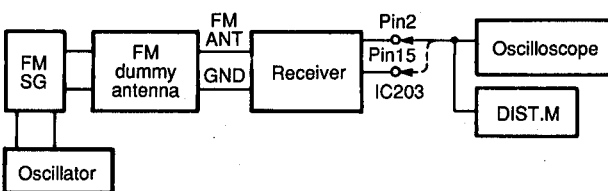
1) Discriminator balance adjustment



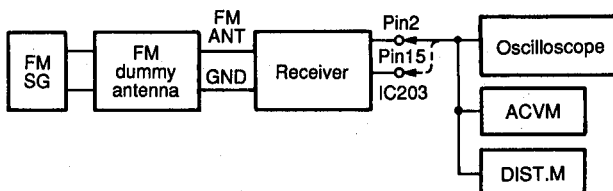
3) Stereo distortion verification/separation verification



2) Monaural distortion adjustment



4) Sensitivity Verification



Step	Adjustment Item	Signal (ANT IN)	Reception frequency	Adjusted point	Test point	Rating
1	Rough adjustment of discriminator balance	FM ANT (75Ω) 98.1MHz 70dBμ MONO 100Hz 100% modulation	98.1MHz * (A-1)	L8 (CENTER)	Both ends of R28	DC 0V±100mV
2	Rough adjustment of monaural distortion	Same as Step 1.	98.1MHz * (A-1)	L8 (DISTORTION)	Lch : Pin2 of IC203 Rch : Pin15 of IC203	Minimize the distortion.
3	Fine adjustment of discriminator balance	Same as Step 1.	98.1MHz * (A-1)	L8 (CENTER)	Both ends of R28	DC 0V±50mV
4	Fine adjustment of monaural distortion	Same as Step 1.	98.1MHz * (A-1)	L8 (DISTORTION)	Lch : Pin2 of IC203 Rch : Pin15 of IC203	Minimize the distortion (to 0.25% or less).
5	Verification of discriminator balance	Same as Step 1.	98.1MHz * (A-1)	L8 (CENTER)	Both ends of R28	DC 0V±50mV
6	Adjustment of frontend IFT	FM ANT (75Ω) 98.1MHz 30dBμ MONO 1kHz 100% modulation	98.1MHz * (A-1)	Frontend IFT	Pin 16 of IC1	Adjust so that the DC voltage is maximum. CAUTION : If over-adjustment IFT core the sensitivity is reduce. Maximum ±90°

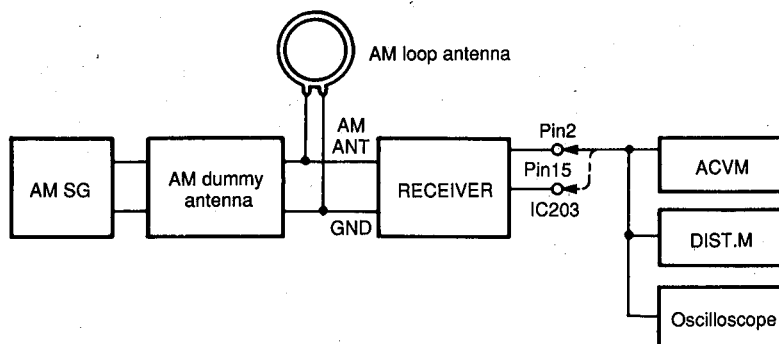
Step	Adjustment Item	Signal (ANT IN)	Reception frequency	Adjusted point	Test point	Rating
7	Verification of monaural distortion	FM ANT (75Ω) 98.1MHz 70dBμ MONO 1kHz, 100% modulation	98.1MHz * (A-1)		Lch : Pin2 of IC203 Rch : Pin15 of IC203	0.4% or less
8	Verification of stereo distortion	FM ANT (75Ω) 98.1MHz 70dBμ Stereo (L or R) 1kHz, 100% modulation	98.1MHz * (A-1) * Tuning mode should be AUTO.		Lch : Pin2 of IC203 Rch : Pin15 of IC203	Distortion should be minimized (1% or less) * STEREO indicator should light.
9	Verification of sensitivity	FM ANT (75Ω) 88.1MHz 98.1MHz 106.1MHz Less than 3dBμ (14.25dBf) MONO Modulation off	88.1MHz * (A-6) 98.1MHz * (A-1) 106.1MHz * (A-7)		ANT (75Ω)	Set the tuning mode to MAN'L MONO. S/N should be 30dB at each frequency of 88.1MHz, 98.1MHz, and 106.1MHz. Confirm that the voltage of ANT-terminal for S/N 30dB is within specification. 3dBμ (14.25dBf) or less (G only : 6dBμ or less)
10	Verification of separation	FM ANT (75Ω) 98.1MHz 70dBμ Stereo (L or R) 1kHz, 100% modulation	98.1MHz * (A-1)		Lch : Pin2 of IC203 Rch : Pin15 of IC203	With SSG output at L or R, the signal leakage level at the other channel should be minimized. 30dB or more
11	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 pressed UP and DOWN. - The stereo indicator should light. - Audio muting should be applied during tuning.

* : Execution of MAKER PRESET (Refer to TEST PROGRAM MODE on page 11.) will facilitate setting reception frequency for adjustment.

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

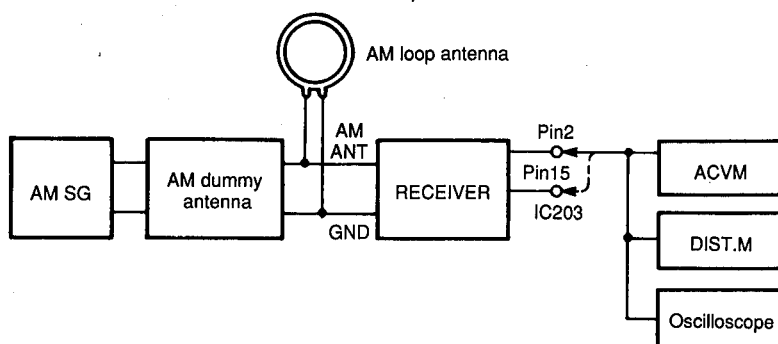
● Connection Diagram (Measuring instruments)

1) Adjustment of sensitivity



Step	Adjustment item	Signal (ANT IN)	Reception frequency	Adjusted point	Test point	Rating
1	Adjustment of sensitivity (1440kHz)	AM ANT 1440kHz 50dB μ 400Hz, 30% modulation	1440kHz * (B-8)	VC1	Lch : Pin2 of IC203 Rch : Pin15 of IC203	Audio output should be maximized.
2	Adjustment of sensitivity (630kHz)	AM ANT 630kHz 50dB μ 400Hz, 30% modulation	630kHz * (B-1)	L5 L9	Lch : Pin2 of IC203 Rch : Pin15 of IC203	Audio output should be maximized. Repeat the Step 1 and 2
3	Verification of sensitivity	AM ANT 630kHz 1080kHz 1440kHz 400Hz, 30% modulation	630kHz * (B1) 1080kHz * (B-2) 1440kHz * (B-8)		AM ANT	Distortion should be 10% or less at each frequency. Check to ensure that the voltage at the ANT terminal is 54dB μ or less.
4	Verification of auto tuning	AM ANT 60dB μ				Auto reception should be available when the tuning key is pressed UP and DOWN.

* : Execution of MAKER PRESET (Refer to TEST PROGRAM MODE on page 11.) will facilitate setting reception frequency for adjustment.

LW Adjustment (B, G only) (This should be done after MW adjustment.)
● Connection Diagram (Measuring instruments)
1) Adjustment of sensitivity


Step	Adjustment Item	Signal (ANT IN)	Reception frequency	Adjusted point	Test point	Rating
1	Adjustment of sensitivity (270kHz)	AM ANT 270kHz 50dBμ 400Hz, 30% modulation	270kHz * (C-1)	VC2	Lch : Pin2 of IC203 Rch : Pin15 of IC203	Audio output should be maximized.
2	Adjustment of sensitivity (171kHz)	AM ANT 171kHz 50dBμ 400Hz, 30% modulation	171kHz * (C-2)	L6	Lch : Pin2 of IC203 Rch : Pin15 of IC203	Audio output should be maximized. Repeat the Step 1 and 2
3	Verification of sensitivity	AM ANT 171kHz 225kHz 270kHz 400Hz, 30% modulation	171kHz * (C-2) 225kHz * (C-3) 270kHz * (C-1)		AM ANT	Distortion should be 10% or less at each frequency. Check to ensure that the voltage at the ANT terminal is 54dBμ or less.
4	Verification of auto tuning	AM ANT 60dBμ				Auto reception should be available when the tuning key is pressed UP and DOWN.

* : Execution of MAKER PRESET (Refer to TEST PROGRAM MODE on page 11.) will facilitate setting reception frequency for adjustment.

■ CLOCK SECTION

MARKETS	METHOD	MONTHLY ERROR
U, C, R (100k/10k)	12 hours	±90 seconds
A, B, G, R (50k/9k)	24 hours	

■ DEMO MODE (for demonstration)

- DEMO MODE starts when the RAM on the CPU has been kept under the following conditions for more than 8 minutes with the power-off.
 - * initialized state
 - * the state that the clock is not set up
- LCD display unit alone is switched on and repeats display demonstration DEMO 1-5.
- DEMO MODE stops by pushing POWER switch (POWER ON) and the receiver starts normal operation. Without setting up the clock, DEMO MODE starts after 8 min. power-off.
- Once the clock is set up, DEMO MODE never starts as long as the RAM on the CPU is holding memory.

■ TEST PROGRAM MODE

TEST PROGRAM MODE is brought about when POWER switch is pushed while pressing and holding both AUTO/MAN'L and AUTO/MEMO switches during power-on.

IN TEST PROGRAM MODE program (function) No. can be selected by TUNER PRESET ► (up) and ◀ (down) switches, and operated by POWER switch.

PROG. No.	DISPLAY	FUNCTION
1	1- Lcd : CL	LCD display full lighting RAM CLEAR
2	2- Lcd	LCD display full lighting
3	3- : CL	RAM CLEAR
4	4- DEMO1	start from DEMO 1 (FUNCTION)
5	5- DEMO2	start from DEMO 2 (TIMER)
6	6- DEMO3	start from DEMO 3 (SLEEP)
7	7- DEMO4	start from DEMO 4 (TUNER)
8	8- DEMO5	start from DEMO 5 (CD)

NOTE 1) POWER switch should be pushed to cancel full lighting of LCD display.

NOTE 2) When RAM CLEAR is operated, MEMORY and "CLEAR" light for 2 seconds and the RAM on the CPU is initialized. Tuner's preset becomes maker's preset.

● MAKER'S PRESET

BAND	MARKETS	PRESET No.							
		1	2	3	4	5	6	7	8
FM (MHz)	U, C, R (100k/10k)	98.1	95.1	87.5	101.5	107.9	88.1	106.1	107.9
	A, B, G, R (50k/9k)	98.10	95.10	87.50	101.50	108.00	88.10	106.10	107.90
AM (kHz)	U, C, R (100k/10k)	630	1080	1400	530	1710	900	1350	1440
	A, B, G, R (50k/9k)	630	1080	1404	531	1611	900	1350	1440
LW (kHz)	B, G	270	171	225	153	288	180	207	252

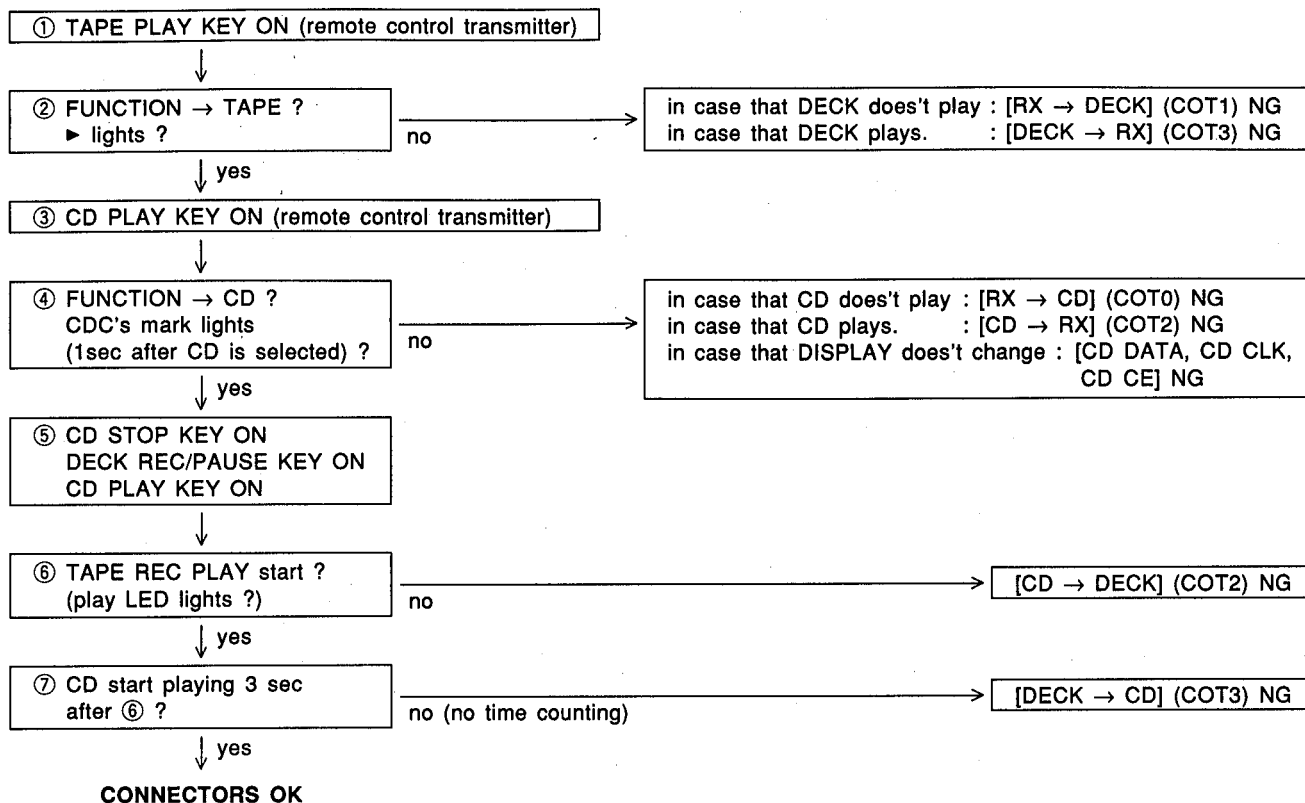
NOTE 1) PRESET PAGE { B, G (with LW) A : FM B : MW C : LW D : FM E : MW
 OTHERS (w.o. LW) A : FM B : AM C : FM D : AM E : FM

CAUTION : Before setting to the TEST PROGRAM mode, write down the existing preset memory content of the Tuner in a table as shown below. (This is because setting to the TEST PROGRAM 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								

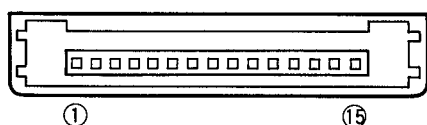
■ SYSTEM CONNECTOR CHECK (SYSTEM CONTROL, LCD)

● CHECK ROUTINE FOR CD, DECK CONNECTORS



● SYSTEM CONNECTOR CD

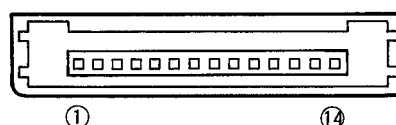
(Viewed from the rear)



No.	NAME	FUNCTION
1	E	GND
2	CDR	CD IN (Rch)
3	E	GND
4	CDL	CD IN (Lch)
5	E	GND
6	E	GND
7	COT3	SYSTEM CONTROL 3
8	COT2	SYSTEM CONTROL 2
9	COT0	SYSTEM CONTROL 0
10	CDDATA	CD SERIAL DATA
11	CDCLK	CD SERIAL CLOCK
12	CDCE	CD CHIP ENABLE
13	CAC1	AC OUT
14	CACE	
15	CAC2	

● SYSTEM CONNECTOR TAPE

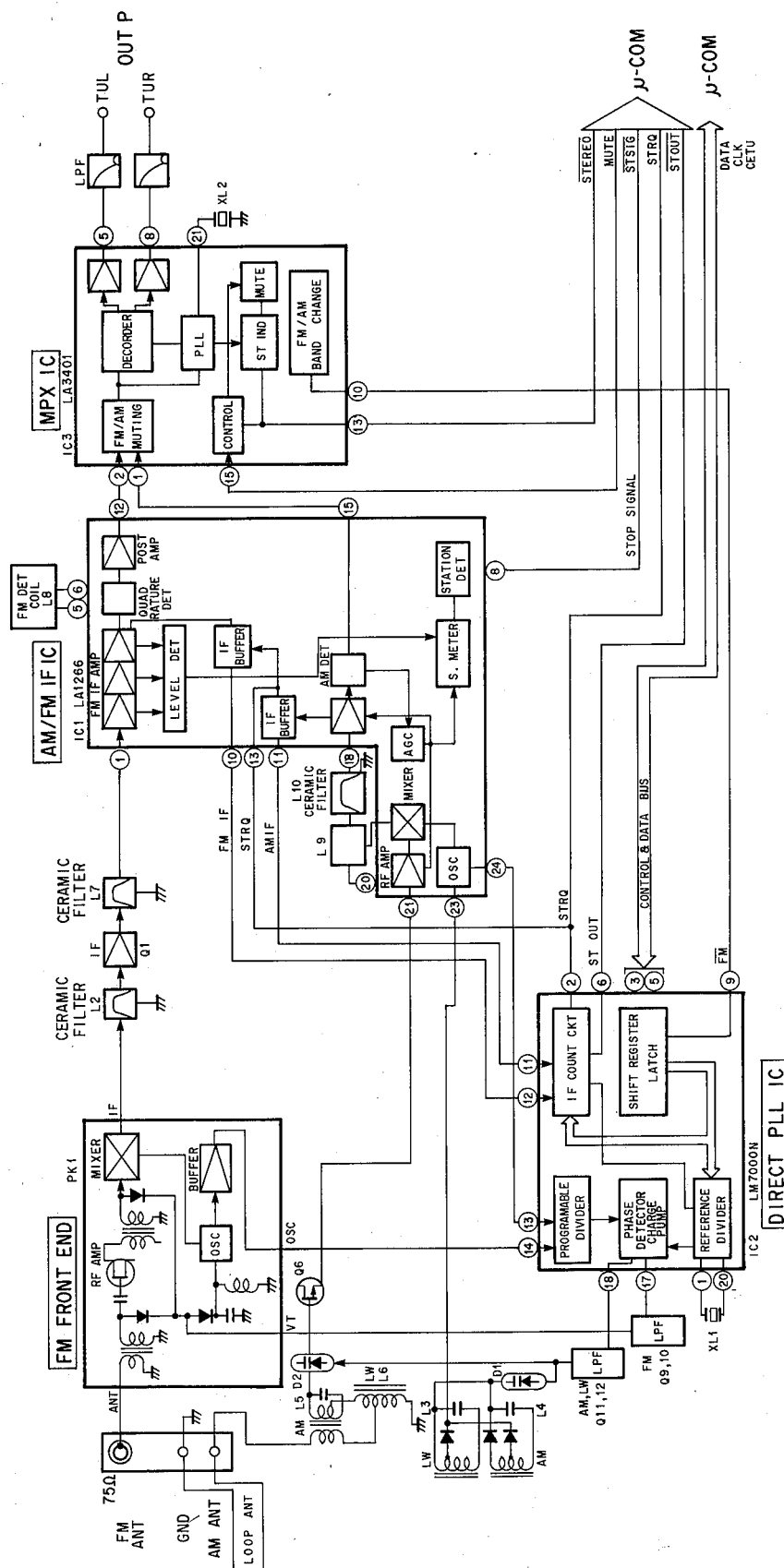
(Viewed from the rear)



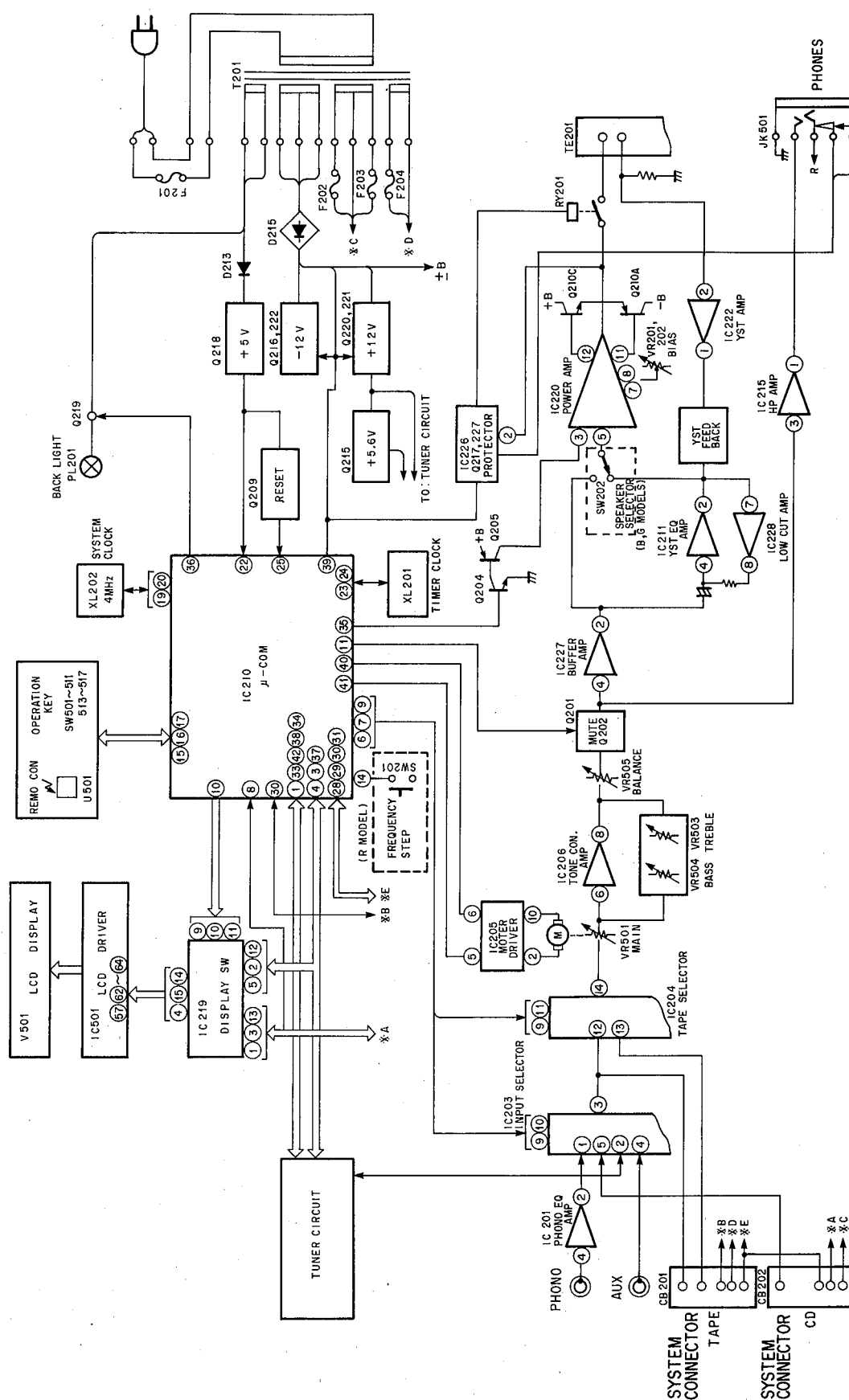
No.	NAME	FUNCTION
1	E	GND
2	REC L	REC OUT (Lch)
3	E	GND
4	REC R	REC OUT (Rch)
5	E	GND
6	PBL	TAPE IN (Lch)
7	E	GND
8	PBR	TAPE IN (Rch)
9	E	GND
10	COT3	SYSTEM CONTROL 3
11	COT2	SYSTEM CONTROL 2
12	COT1	SYSTEM CONTROL 1
13	TAC2	AC OUT
14	TAC1	

BLOCK DIAGRAM

TUNER SECTION

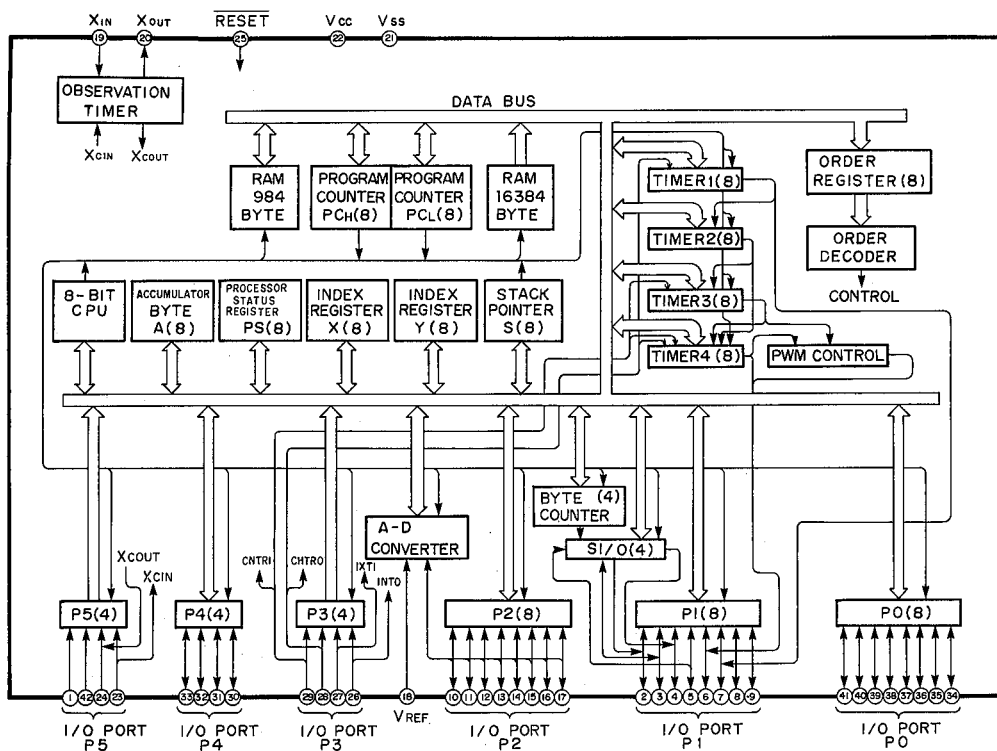
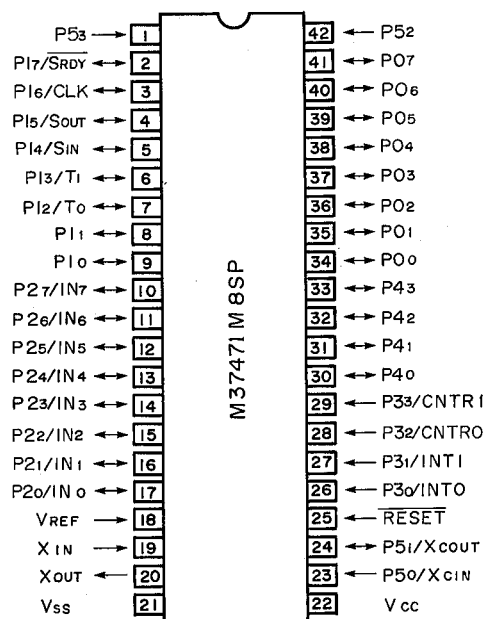


CONTROL & AMP SECTION



■ μ -COM DATA

IC210 : M37471M8SP

8bit μ -COM

Pin No.	Name	OD · CMOS	Function	
1	P5 ₃	OD	STEREO IN (TUNER)	[0 : STEREO 1 : MONO]
2	P1 ₇	CMOS	LCD CE OUT	[1 : TRANSFER]
3	P1 ₆	CMOS	LCD/LM7000N CLK OUT (SERIAL I/O)	
4	P1 ₅	CMOS	LCD/LM7000N DATA OUT (SERIAL I/O)	
5	P1 ₄	CMOS	LCD INH OUT	[0 : LCD OFF]
6	P1 ₃	CMOS	INPUT SELECT OUT (B)	PHONO TUNER CD AUX B : 1 0 1 0 A : 1 1 0 0
7	P1 ₂	CMOS		

Pin		OD • CMOS	Function
No.	Name		
8	P11	OD	CD LCD CE IN [1 : BEING TRANSFERRED]
9	P10	CMOS	TAPE MONITOR SELECT, INH ON OUT [0 : TAPE ON]
10	P27	CMOS	DISPLAY SELECT OUT [0 : RECEIVER 1 : CD]
11	P26	CMOS	AMP MUTE OUT [0 : MUTE ON]
12	P25		Not used (GND)
13	P24		Not used (GND)
14	P23	A-D	MARKET SELECT [A (R) : R : A : B, G : U, C : J]
15	P22	A-D	KEY2 [MEMORY : Auto MEMORY : DISPLAY]
16	P21	A-D	KEY1 [P-DOWN : P-UP : A/B/C/D/E : FM/AM : Tun-DOWN : Tun-UP : AUTO/MAN'L]
17	P20	A-D	KEY0 [POWER : AUX : TAPE : TUNER : CD : PHONO]
18	VREF	/	A-D REFERENCE VOLTAGE INPUT
19	XIN	/	4MHz } SYSTEM CLOCK
20	XOUT	/	
21	VSS	/	GND
22	VCC	/	+2.7 ~ +5.5V
23	P50	/	XCIN 32.768kHz } TIMER CLOCK
24	P51	/	
25	RES	/	RESET
26	P30	OD	POWER DOWN AC PULSE IN (& INT0)
27	P31	OD	REMOTE CONTROL IN (& INT1)
28	P32	OD	CASSETTE DATA IN (SYSTEM COMMUNICATION COT3)
29	P33	OD	CD DATA IN (SYSTEM COMMUNICATION COT2)
30	P40	CMOS	CASSETTE DATA OUT (SYSTEM COMMUNICATION COT1)
31	P41	CMOS	CD DATA OUT (SYSTEM COMMUNICATION COT0)
32	P42	CMOS	FORCED MONO OUT (TUNER) [0 : MONO ON]
33	P43	CMOS	TUNER MUTE OUT (TUNER) [1 : MUTE ON]
34	P00	INTERNAL P-UP	STOP OUT IN (TUNER) [0 : CORRECT STATION AVAILABLE]
35	P01	CMOS	POWER MUTE OUT [0 : OFF 1 : ON]
36	P02	CMOS	LAMP OUT [0 : HALF ON 1 : ALL ON]
37	P03	CMOS	LM7000N CE OUT [1 : TRANSFER]
38	P04	CMOS	STOP REQUEST OUT (TUNER) [1 : REQUEST ON]
39	P05	CMOS	POWER ON OUT [0 : ON 1 : OFF]
40	P06	CMOS	VOLUME UP OUT
41	P07	CMOS	VOLUME DOWN OUT
42	P52	OD	STEREO SIGNAL IN (TUNER) [0 : STATION AVAILABLE]

● A/D INPUT PORT

For Pin14, Pin15, Pin16 and Pin17, the indicated voltage, which is the divisional voltage of the standard 5V with resistance, is detected when the corresponding key is pressed.

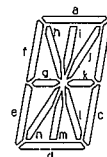
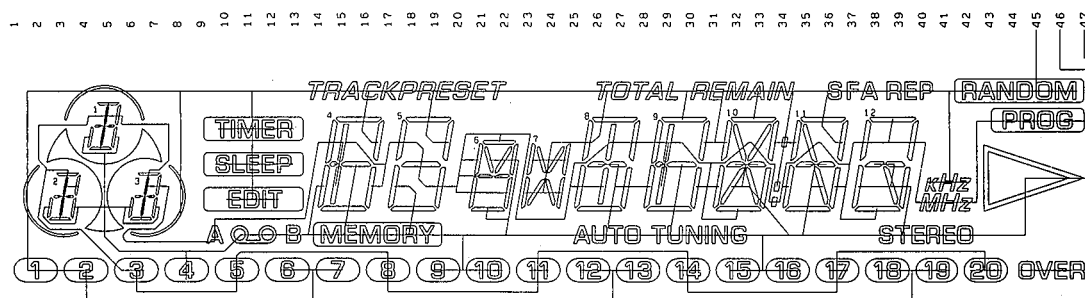
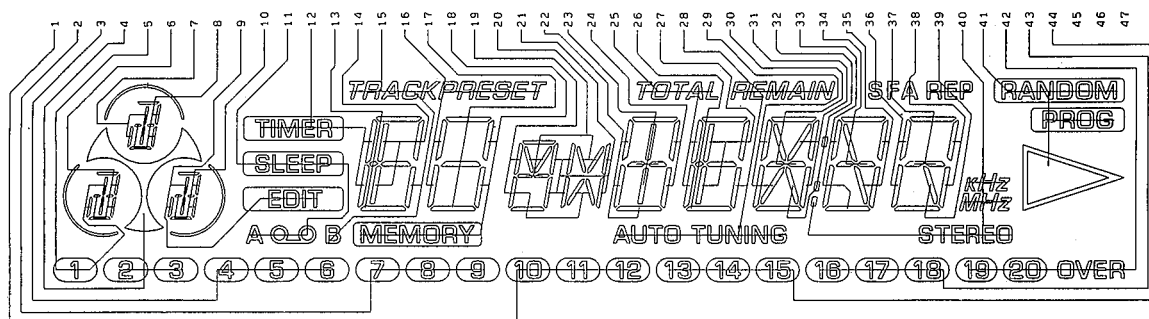
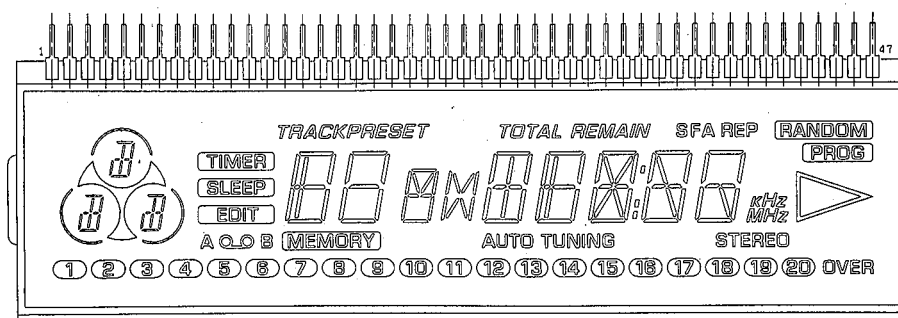
VOLTAGE AREA *1	STANDARD VOLTAGE *2	VS (Pin14)	KEY2 (Pin15)	KEY1 (Pin16)	KEY0 (Pin17)
Less than 0.556	0	A (R)	MEMORY	PRESET DOWN	POWER
0.556 — 1.111	0.834	R	AUTO MEMO	PRESET UP	AUX
1.111 — 1.667	1.39	A	DISPLAY	A/B/C/D/E	TAPE
1.667 — 2.222	1.94	B, G	—	BAND	TUNER
2.222 — 2.778	2.50	U, C	—	TUNING DOWN	CD
2.778 — 3.333	3.06	J	—	TUNING UP	PHONO
3.333 — 3.889	3.61	—	—	AUTO/MAN'L	—
3.889 — 4.444	4.17	—	—	—	—

*1 The Voltage Area is when the Power Source is 5V, and it changes in proportion to the voltage.

*2 Standard Voltage is the value when the Power Source is 5V under the present resistance value.

■ DISPLAY DATA (VQ062900)

● V501 : LCD8255B1JP



No.	COM1	COM2	COM3	No.	COM1	COM2	COM3	No.	COM1	COM2	COM3
1	12	11	10	17	5a	5g	5d	33	11f	11e	11d
2	7	8	9	18	5b	5c	MEMORY	34	11a	11h	11gk
3	6	5	4	19	7ln	6ef	6d	35	11b	11c	11l
4	2	3	Y	20	7hj	6agk	6hj	36	S	12f	12e
5	1	2im	2e	21	7bcef	6c	6b	37	F	12a	12gk
6	(	2abdgc	2c	22	8f	8e	8d	38	A	12b	12c
7	—	1im	1e	23	8a	8im	8gk	39	REP	12d	12l
8	(	1abdgc	1c	24	—	8b	8c	40	kHz	MHz DP	STEREO
9	EDIT	3im	3e	25	TOTAL	9f	9e	41	RANDOM	PROG	▷
10	)	3abdgc	3c	26	9a	9g	9d	42	19	20	OVER
11	SLEEP	A	Q	27	9b	9im	9k	43	18	17	16
12	TIMER	4f	4e	28	REMAIN	9c	AUTO TUNING	44	13	14	15
13	4a	4g	4d	29	10f	10e	10l	45	COM	—	—
14	4b	4im	4k	30	10a	10h	10gk	46	—	COM	—
15	TRACK	4c	8	31	10b	10j	10c	47	—	—	COM
16	PRESET	5f	5e	32	COL	10d	10l				

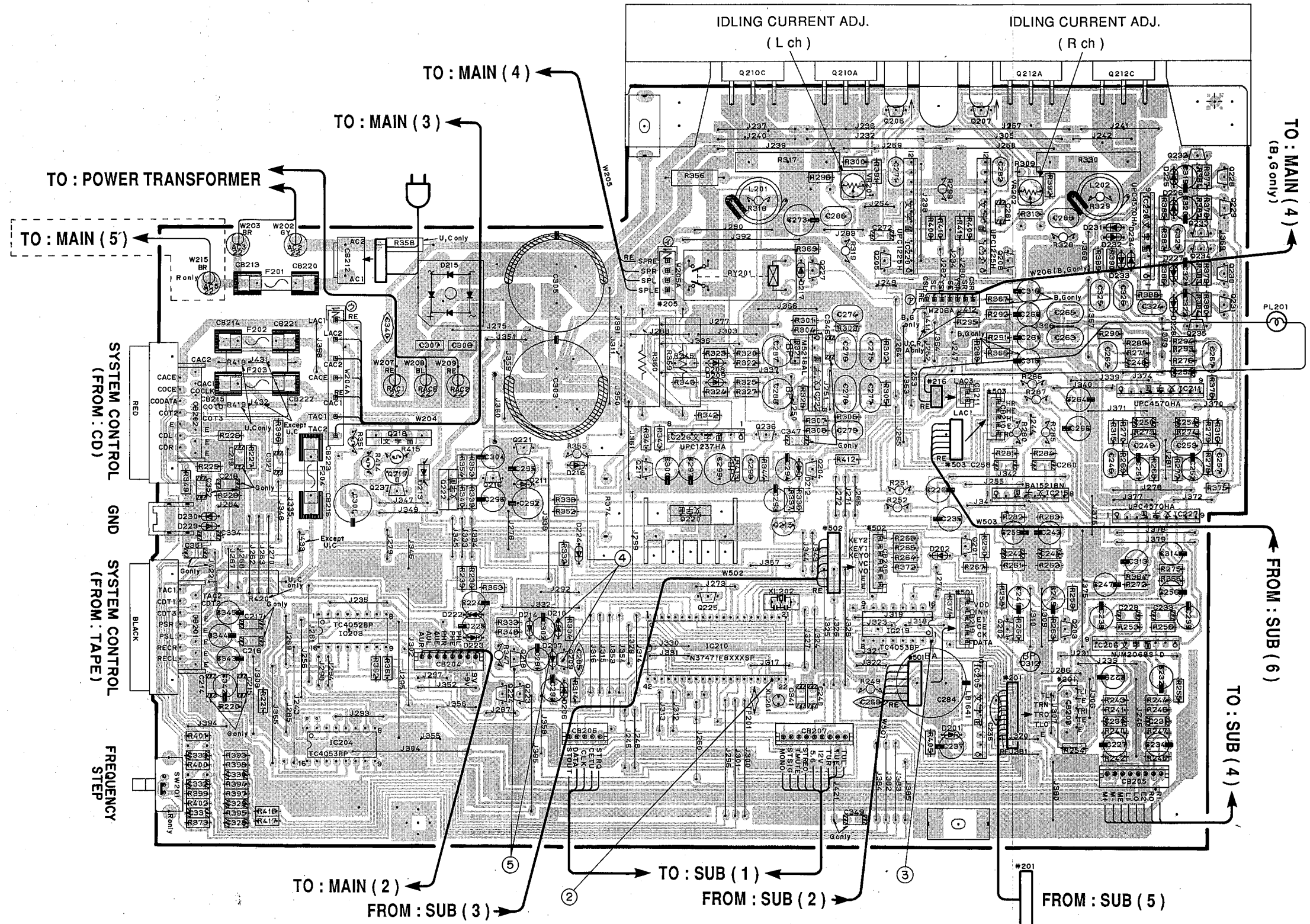
■ PRINTED CIRCUIT BOARD (Foil side)

② to ⑤ : TEST POINT WAVEFORMS (See page 27)

MAIN P. C. B. (1)

● Semiconductor Location

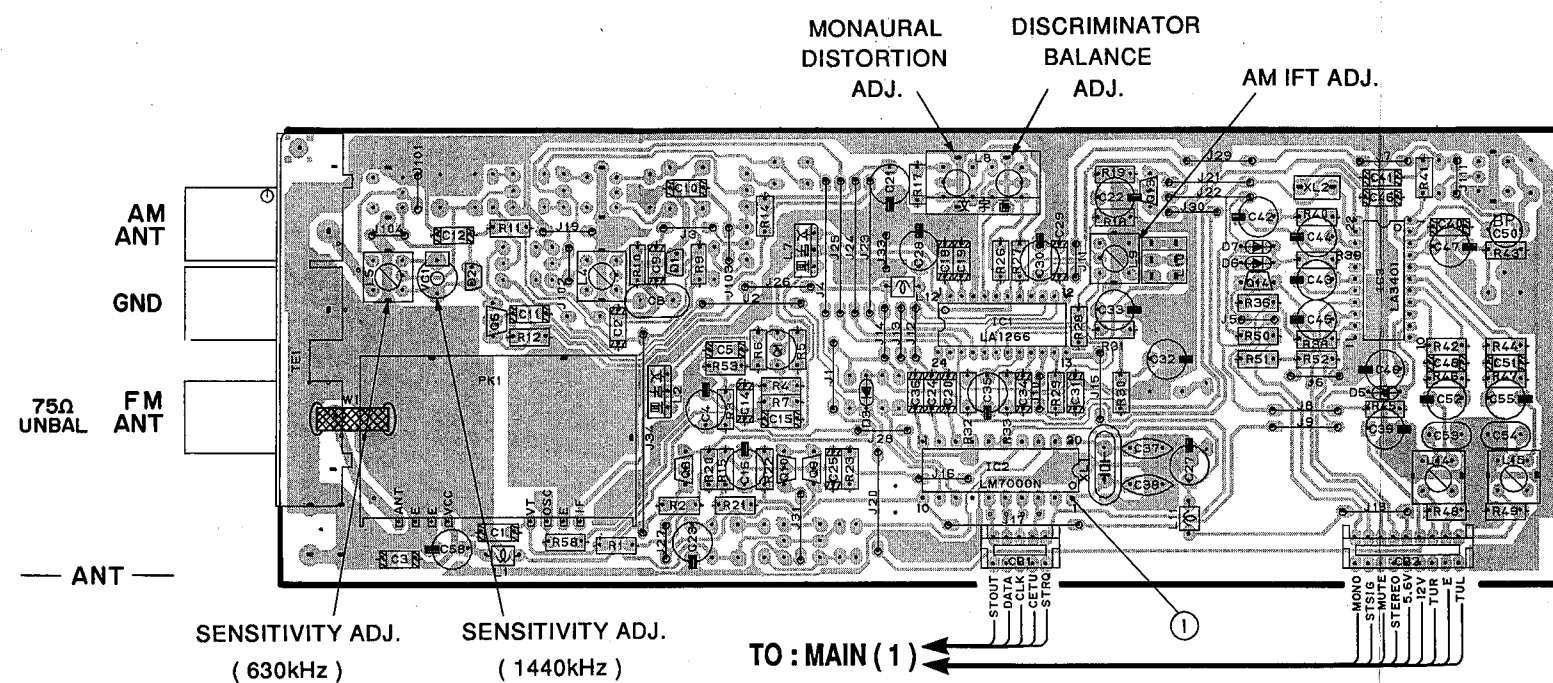
Ref. No.	Location
IC 203	C4
IC 204	C5
IC 205	F4
IC 206	G4
IC 210	E4
IC 211	G3
IC 215	F3
IC 219	F4
IC 220	F2
IC 221	F2
IC 222	E3
IC 226	E3
IC 227	G4
IC 228	G2
Q 201	F4
Q 202	F4
Q 203	F4
Q 204	E3
Q 205	F2
Q 206	F2
Q 207	F2
Q 208	F2
Q 209	D4
Q210A	E2
Q210C	E2
Q212A	F2
Q212C	G2
Q 215	E4
Q 216	D3
Q 217	E3
Q 218	D4
Q 219	C3
Q 220	E4
Q 221	D3
Q 222	D3
Q 223	D4
Q 224	D4
Q 225	E4
Q 227	E3
Q 228	G2
Q 229	G2
Q 230	G3
Q 231	G3
Q 232	G2
Q 233	G2
Q 234	G2
Q 235	G3
Q 236	E3
Q 237	C3



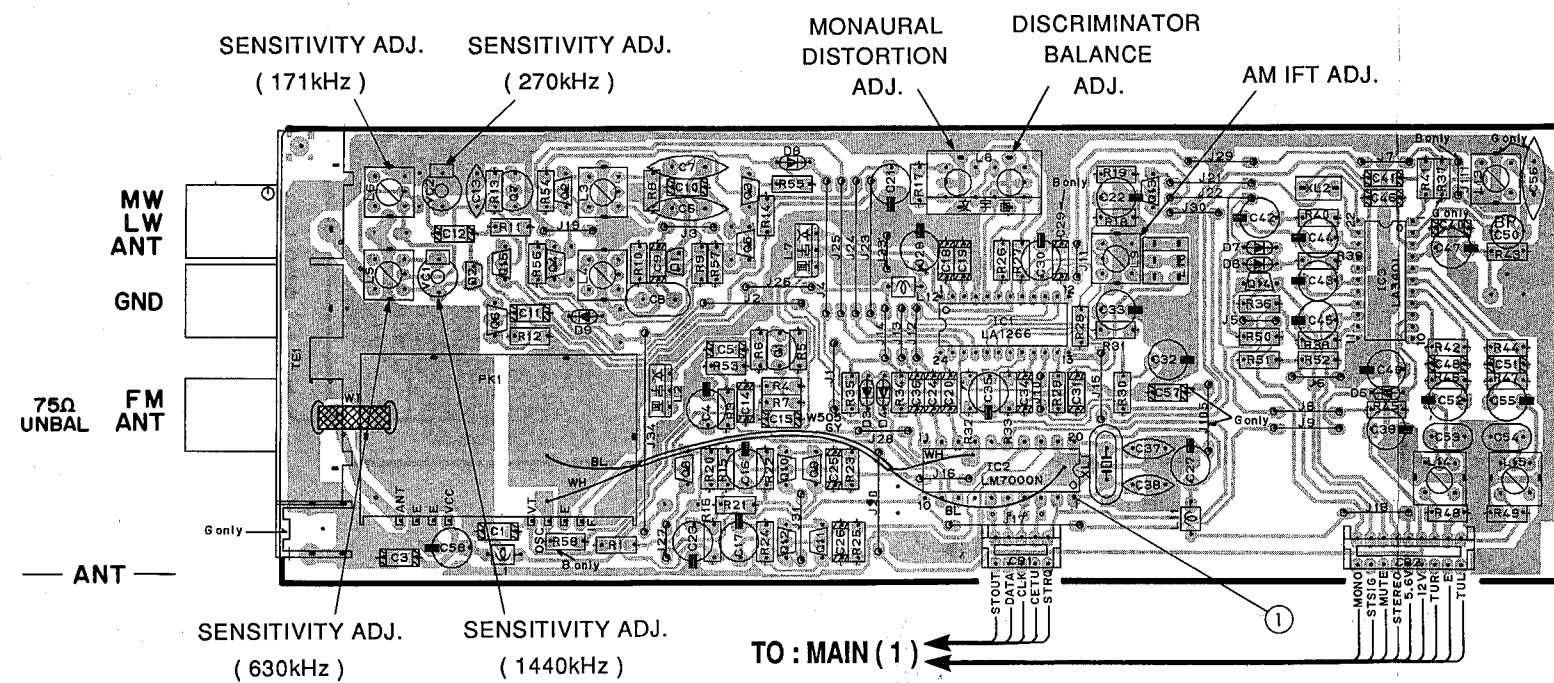
■ PRINTED CIRCUIT BOARD (Foil side)

① : TEST POINT WAVEFORMS (See page 27)

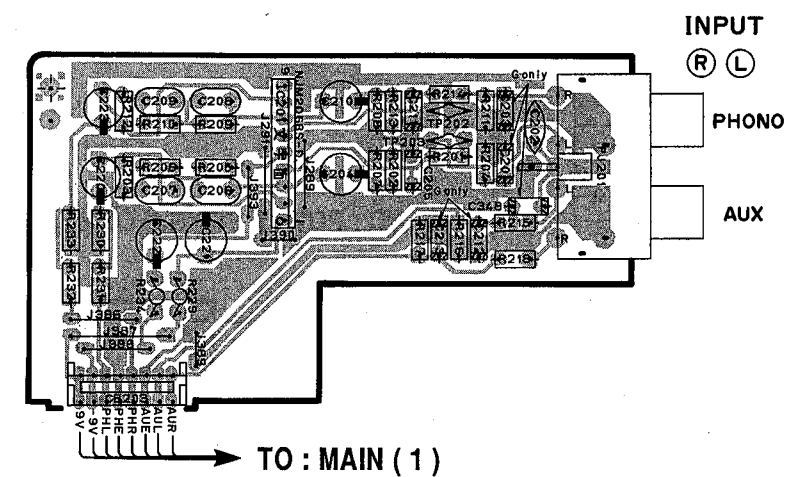
● U, C, R, A models
SUB P. C. B. (1)



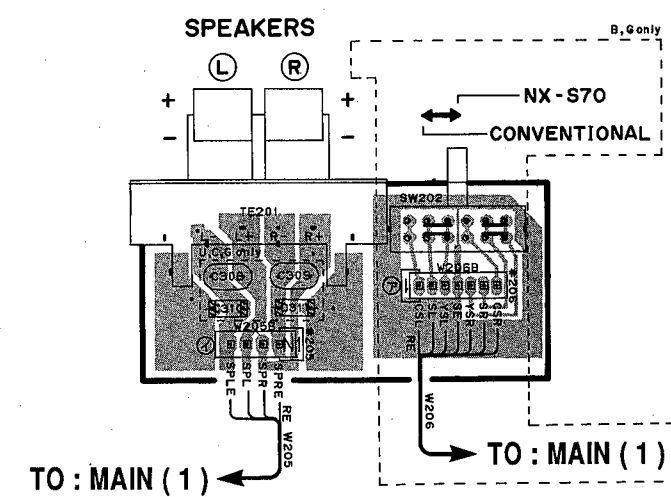
● B, G models
SUB P. C. B. (1)



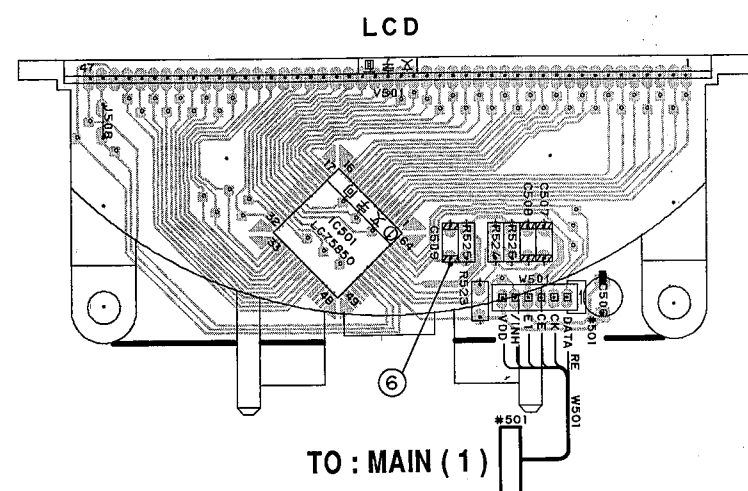
MAIN P. C. B. (2)



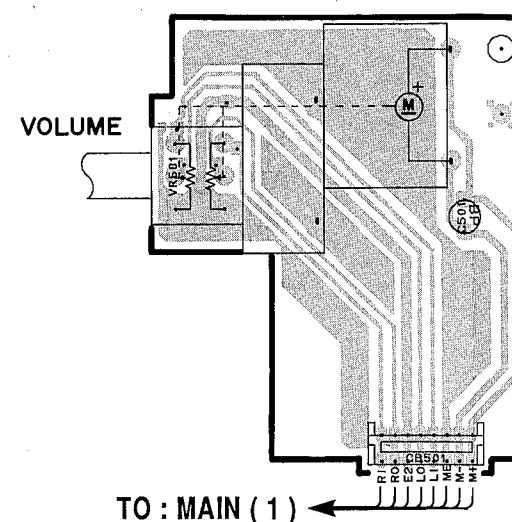
MAIN P. C. B. (4)



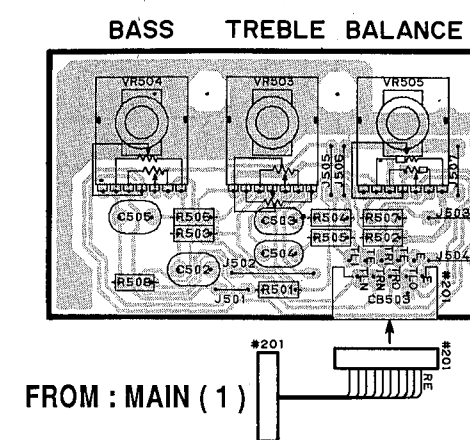
SUB P. C. B. (2)



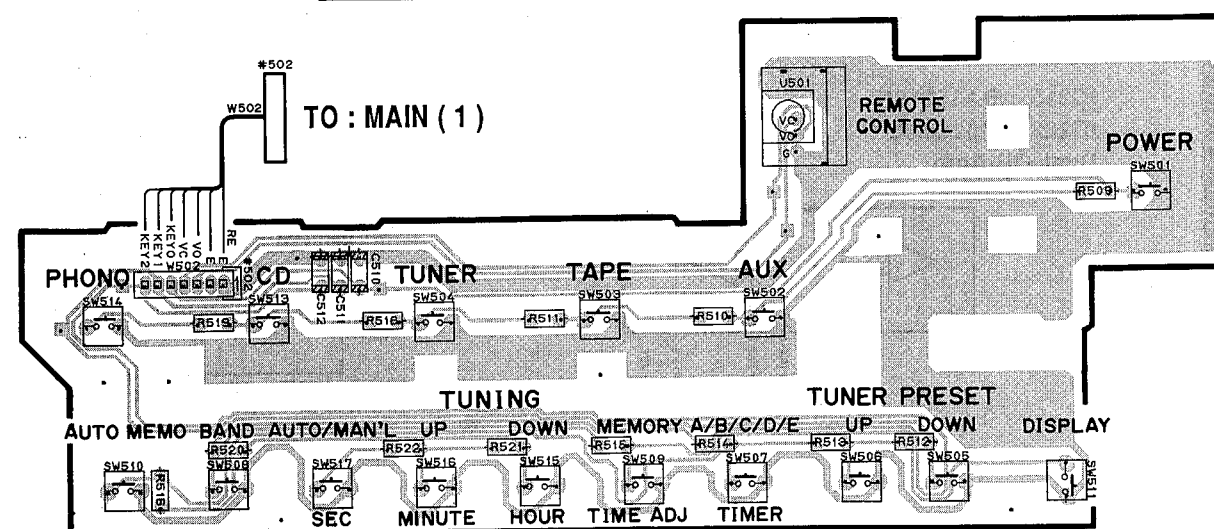
SUB P. C. B. (4)



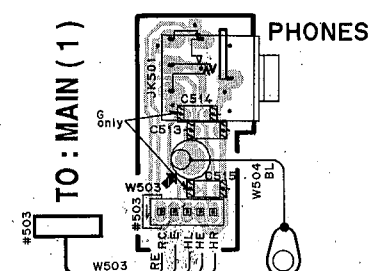
SUB P. C. B. (5)



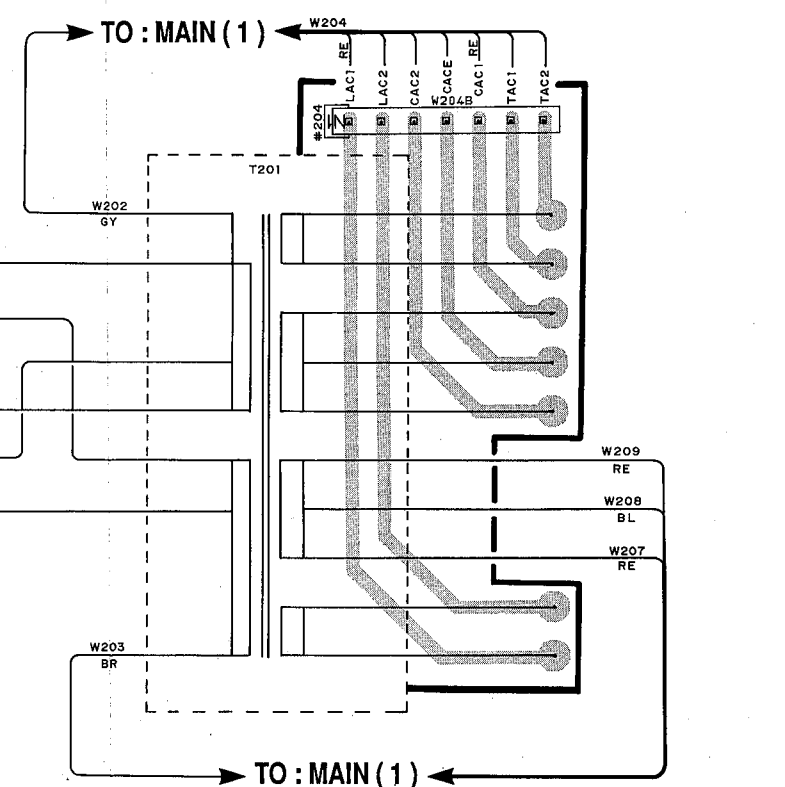
SUB P. C. B. (3)



SUB P. C. B. (6)

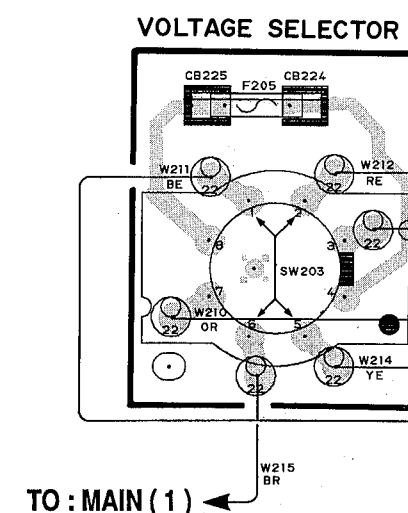


MAIN P. C. B. (3)



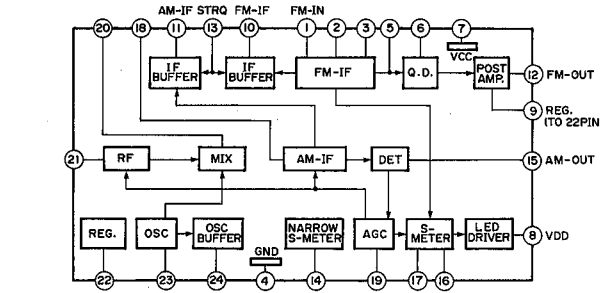
- R model

MAIN P. C. B. (5)

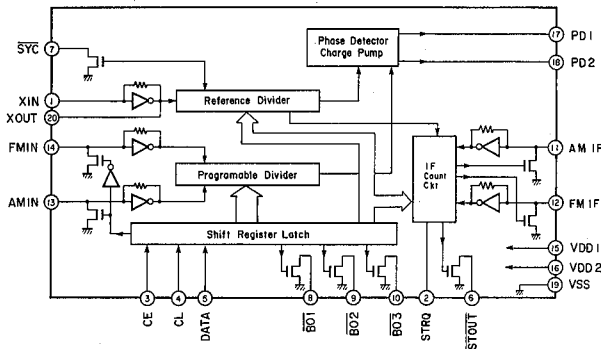


IC BLOCK

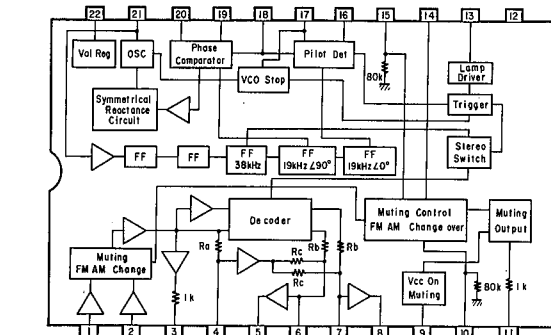
IC1 : LA1266
AM/FM IF



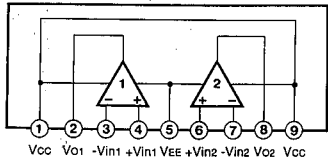
IC2 : LM7000N
PLL Controller



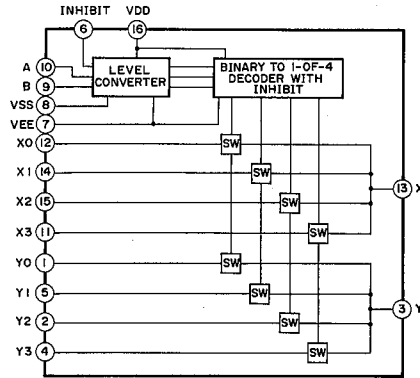
IC3 : LA3401
MPX



IC201, 206 : NJM2068S-D
IC211, 227, 228 : μ PC4570HA
Dual OP-Amp

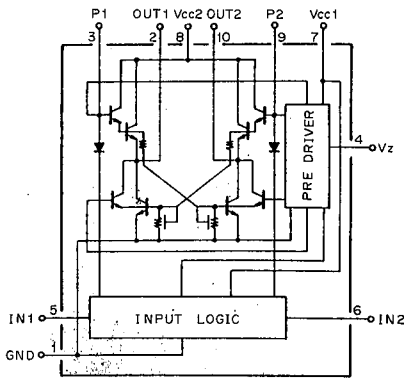


IC203 : TC4052BP
Dual 4 Channel Analog Multiplexers/Demultiplexers

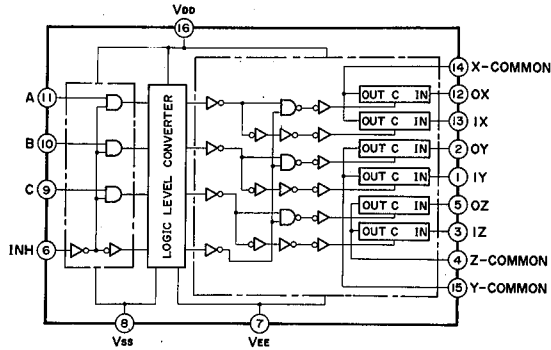


INHIBIT	B	A	
0	0	0	0x, 0y
0	0	1	1x, 1y
0	1	0	2x, 2y
0	1	1	3x, 3y
1	X	X	NONE

IC205 : LB1641
Motor Driver



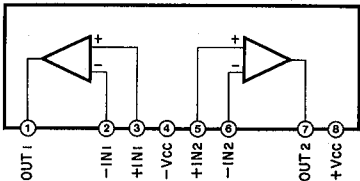
IC204, 219 : TC4053BP
Triple 2 Channel Analog
Multiplexers/Demultiplexers



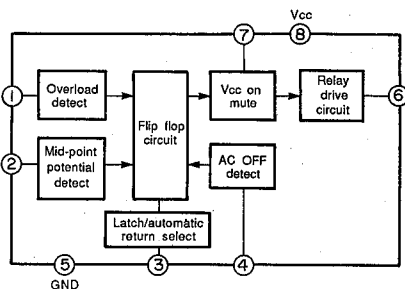
CONTROL INPUTS				"ON" CHANNEL
INHIBIT	C	B	A	0X (Pin 12), 0Y (Pin 2), 0Z (Pin 5)
(Pin 6)	(Pin 9)	(Pin 10)	(Pin 11)	1X (Pin 13), 1Y (Pin 1), 1Z (Pin 3)
L	L	L	L	0X, 0Y, 0Z
L	L	L	H	1X, 0Y, 0Z
L	L	H	L	0X, 1Y, 0Z
L	L	H	H	1X, 1Y, 0Z
L	H	L	L	0X, 0Y, 1Z
L	H	L	H	1X, 0Y, 1Z
L	H	H	L	0X, 1Y, 1Z
L	H	H	H	1X, 1Y, 1Z
H	*	*	*	NONE

* Don't Care

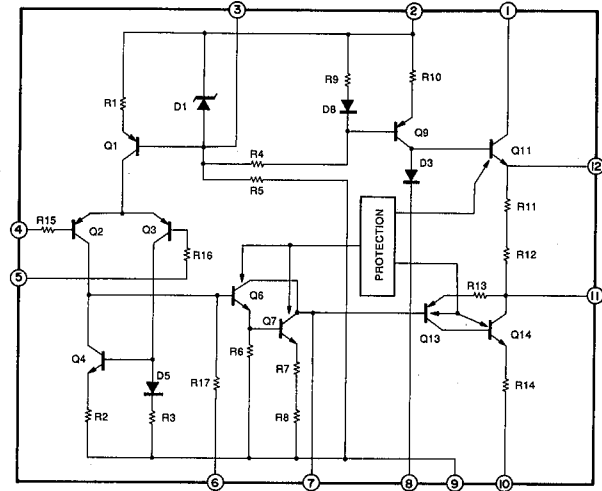
IC215 : BA15218N
IC222 : M5218AL
Dual OP-Amp



IC226 : μ PC1237HA
Protector IC for Power Amplifier

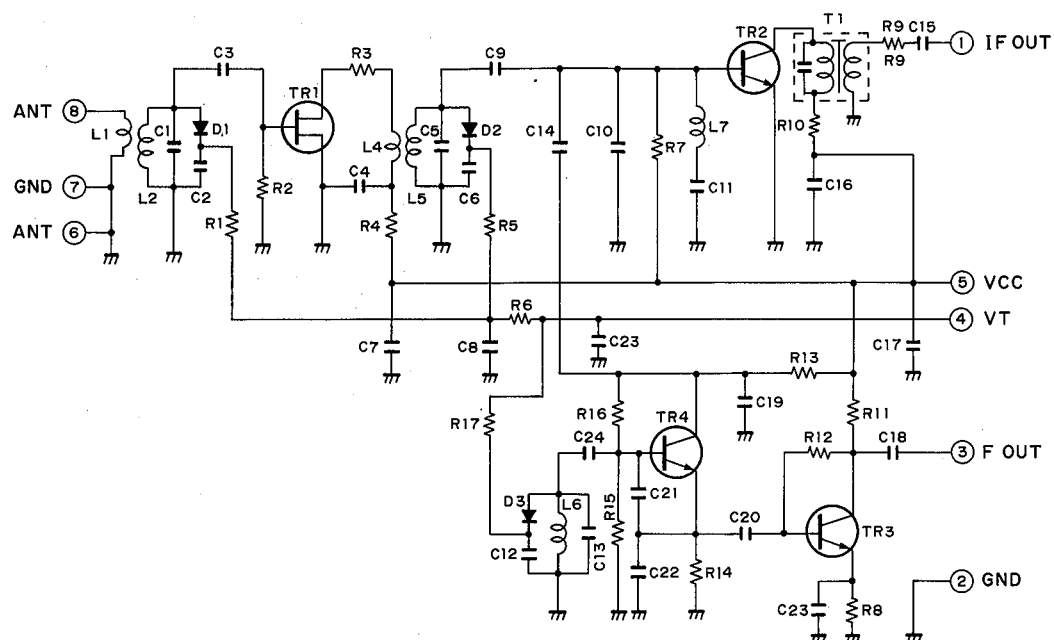


IC220, 221 : μ PC1225H
Power Amp

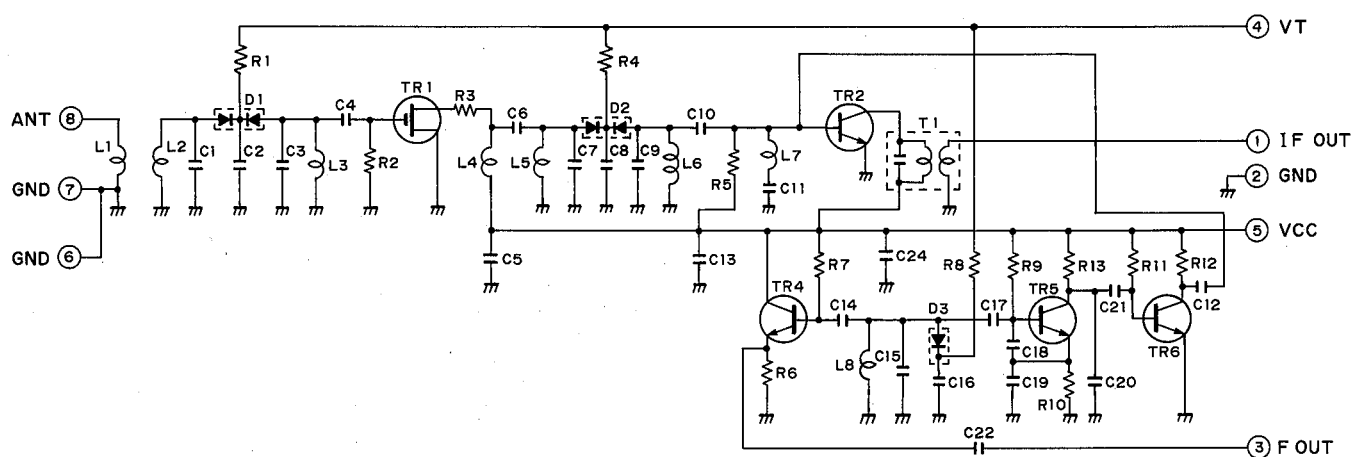


■ FRONT END PACK

- PK1 : TFFJ2U312A (VP458800)
Except G model



- PK1 : TFFJ3E312A (VP458900)
G model



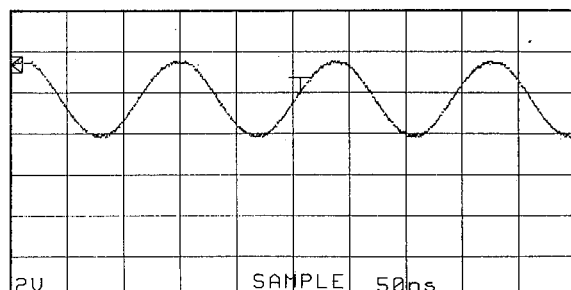
■ TEST POINT WAVEFORMS

Point ①

(Pin 1 of IC2)

V : 2V/div H : 50nsec/div

DC range 1 : 1 probe

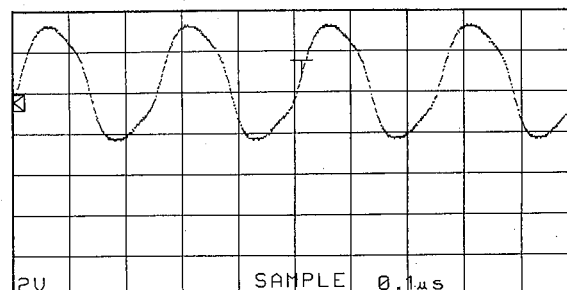


Point ②

(Pin 20 of IC210)

V : 2V/div H : 0.1μsec/div

DC range 1 : 1 probe

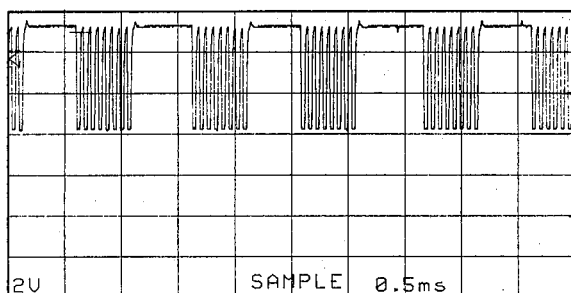


Point ③

(Pin 1 of IC219)

V : 2V/div H : 0.5msec/div

DC range 1 : 1 probe

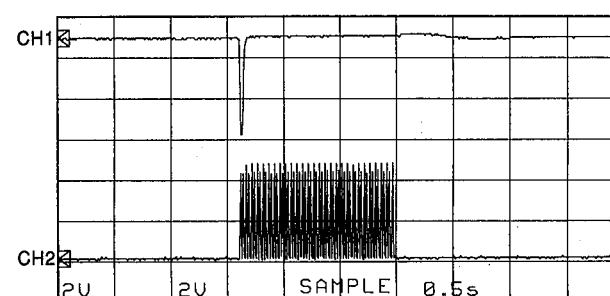


Point ④

(CH1 : Collector of Q209)
(CH2 : Cathode of D210)

V : 2V/div H : 0.5sec/div

DC range 1 : 1 probe



With the POWER
switch turned ON,
connect the power
cord to the AC outlet.

Disconnect the
power cord from
the AC outlet.

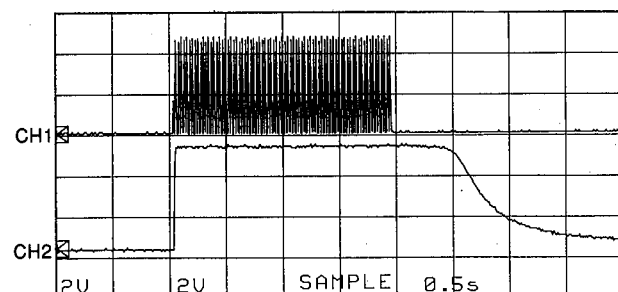
(This waveform is not available by pushing
the power switch ON and OFF.)

Point ⑤

(CH1 : Cathode of D210)
(CH2 : Emitter of Q218)

V : 2V/div H : 0.5sec/div

DC range 1 : 1 probe



With the POWER
switch turned ON,
connect the power
cord to the AC outlet.

Disconnect the
power cord from
the AC outlet.

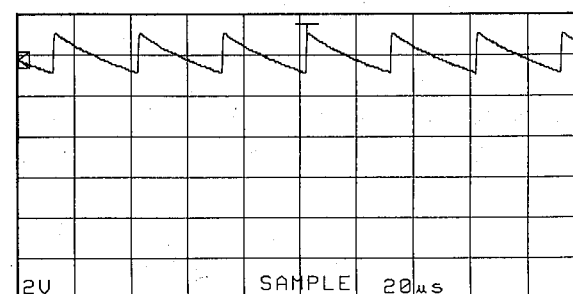
(This waveform is not available by pushing
the power switch ON and OFF.)

Point ⑥

(Pin 61 of IC501)

V : 2V/div H : 20μsec/div

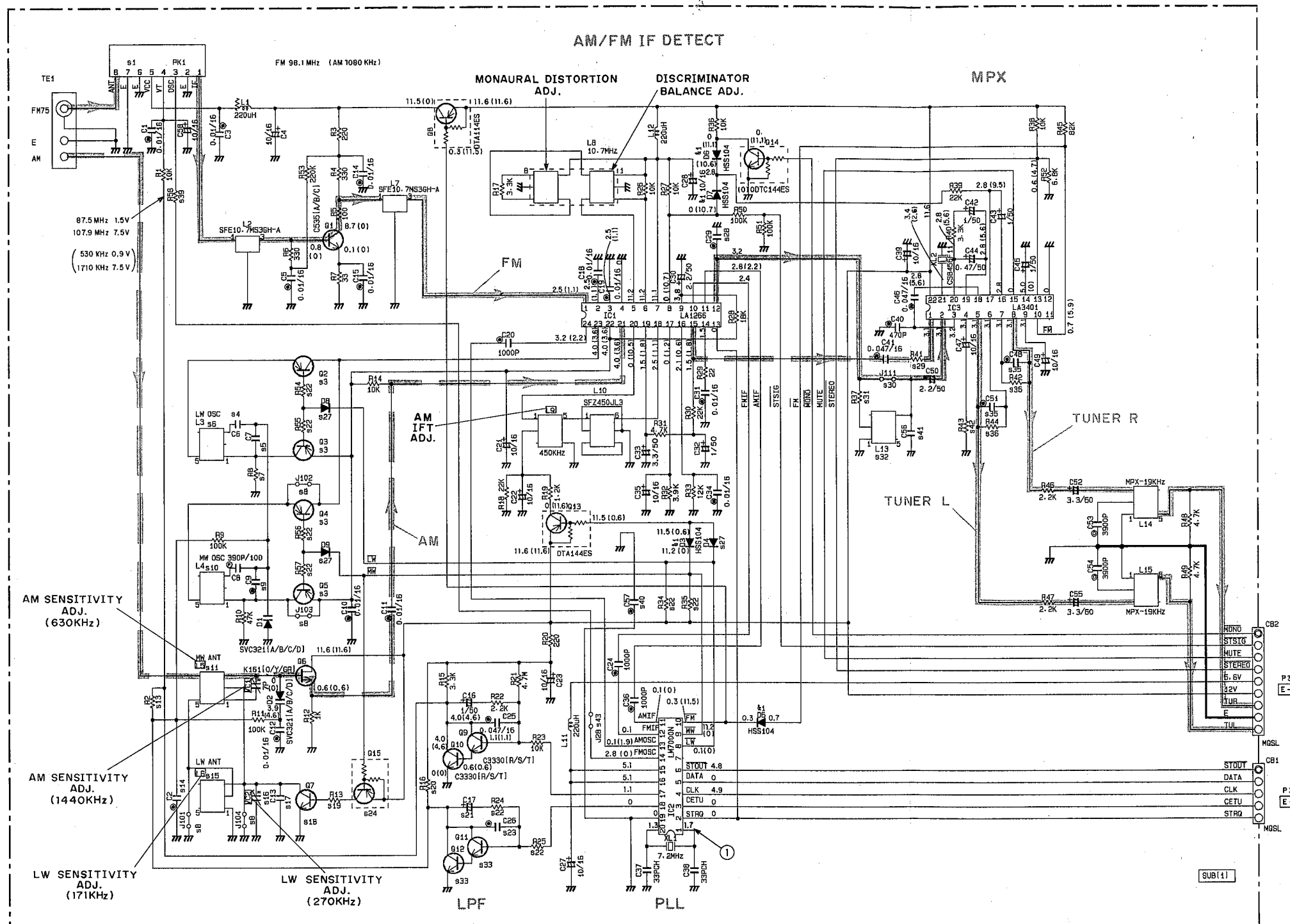
DC range 1 : 1 probe



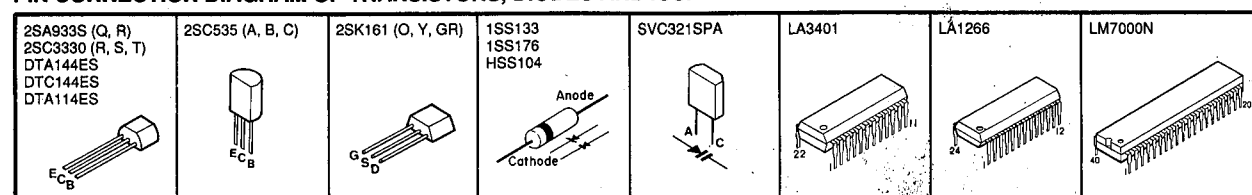
SCHEMATIC DIAGRAM (Tuner Section)

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

① : TEST POINT WAVEFORMS (See page 27)



PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICs.



Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
41	03.5-7	HSS104 1SS133 1SS176

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	AXIAL LEAD CERAMIC CAPACITOR
⊖	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
⊖	MICA CAPACITOR
⊖	POLYPROPYLENE FILM CAPACITOR
⊖	SEMICONDUCTIVE CERAMIC CAPACITOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (1/6W)
⊗	CARBON FILM RESISTOR (1/4W)
⊖	METAL OXIDE FILM RESISTOR
⊖	METAL FILM RESISTOR
⊖	METAL PLATE RESISTOR
⊖	FIRE PROOF CARBON FILM RESISTOR
⊖	CEMENT MOLDED RESISTOR
⊖	SEMI VARIABLE RESISTOR
⊖	CHIP RESISTOR

NOTICE

(J)..... Japanese model
(U)..... U.S.A model
(C)..... Canadian model
(A)..... Australian model
(G)..... European model
(B)..... British model
(R)..... General model
(P)..... RP model

s	J	U.C	R	A	B	G
1	PK1	VP45870	VP45880	VP45890	VP45890	VP45890
2						
3	G2.3.4.5	X	X	X	A933S[G/R]	A933S[G/R]
4	D6	X	X	X	CH 180P	CH 180P
5	C7	X	X	X	CH 120P	CH 120P
6	L3	X	X	X	VC86740	VC86740
7	R8	X	X	X	47K	47K
8	J101-104	O	O	O	X	X
9	C9	CH 15P	CH 15P	CH 15P	CH 4.7P	CH 4.7P
10	L4	VK64640	VK64640	VK64640	VC86750	VC86750
11	L5	VK64650	VK64650	VK64650	VC86770	VC86770
12						
13	R2	10K	10K	10K	X	X
14	C2	0.01/16	0.01/16	0.01/16	X	X
15	L6	X	X	X	VC86760	VC86760
16	VC2	X	X	X	VC93730	VC93730
17	C13	X	X	X	CH 47P	CH 47P
18	Q7	X	X	X	C535[A/B/C]	C535[A/B/C]
19	R13	X	X	X	10K	10K
20	R16	X	X	X	3.3K	3.3K
21	C17	X	X	X	1/50	1/50
22	R24.25.34 R35 R54-57	X	X	X	10K	10K
23	C26	X	X	X	0.047/16	0.047/16
24	R15	X	X	X	DTA144ES	DTA144ES
25						
26						
27	D4.8.9	X	X	X	HSS104 1SS133 1SS176	HSS104 1SS133 1SS176
28	C29	100P	100P	100P	100P	X
29	R41	10K	10K	10K	10K	33K
30	J111	O	O	O	O	X
31	R37	X	X	X	X	4.7K
32	L13	X	X	X	X	V036570
33	011-12	X	X	X	C3330[R/S/T]	C3330[R/S/T]
34						
35	C48.51	680P	1000P	1000P	680P	390P
36	R42.44	75K	75K	75K	75K	120K
37						
38						
39	R58	100	100	100	100	X
40	C57	X	X	X	X	100P
41	C56	X	X	X	X	CH120P
42	R43	56K	56K	56K	56K	20K
43	J28	O	O	O	O	X

NOTE) X: NOT USED
O: USED

* All voltage are measured with a 10MΩ/V 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.

■ SCHEMATIC DIAGRAM (Control & Amp Section)

Each voltage given here represents that obtained when setting is at CD input position.

② to ⑥ : TEST POINT WAVEFORMS (See page 27)

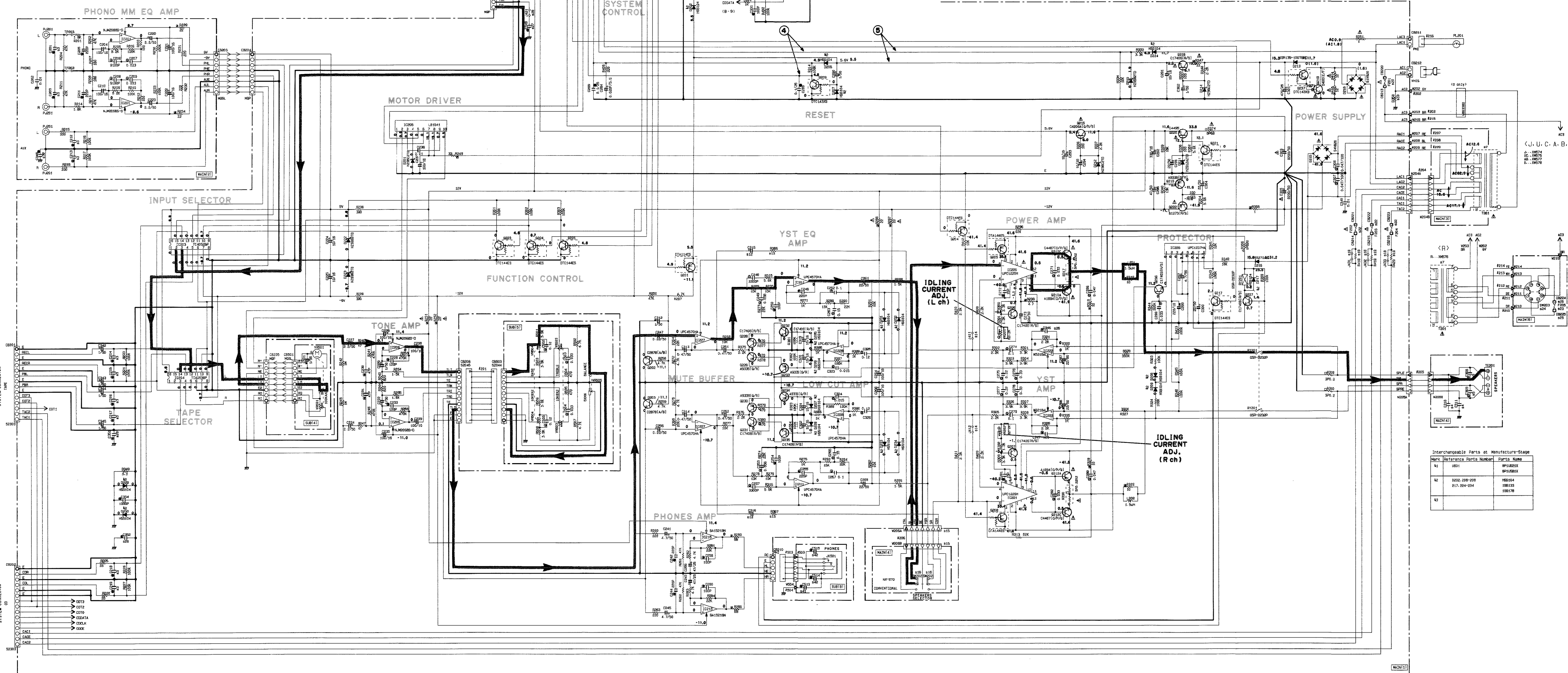
MAIN

	J	U-C	R	A	B	D
1	RS79	25K	25K	2K	3-5K	5-2K
2	5K001	X	X	W54120	X	X
3	2501	500	X	X	X	250P
4	C300	511	X	0.01/16	X	X
5	C300	200	X	0.01	X	X
6						
7	T201	1M574	1M575	1M576	1M577	1M578
8						
9	R500	X	1/200 2W	X	X	X
10						
11						
12	C305	315	X	X	X	20/50
13	C306	R307	X	X	X	1-5K
14	J411	J412	0	0	0	X
15	N200	X	X	X	X	V257010
16	S402	X	X	X	X	V257010
17						
18	J412	430	433	0	0	0
19	R410	410	420	X	300.2	X
20	F201	144120V	144120V	144120V	11-5A125V	11-5A125V
21						
22	F202	F203	T2A200V	T2A200V	T2A200V	T2A200V
23	F203	X	X	11-5A125V	X	X
24	S403	X	X	V257010	X	X
25	C304	C305	X	X	X	X
26	C306	347	X	X	X	100P
27	C307	X	X	X	X	100P
28	J401	X	X	X	X	0
29	C308	X	X	X	X	2000P/16
30	C309	X	100P	X	X	100P
31						

NOTE: X: NOT USED
0: USED

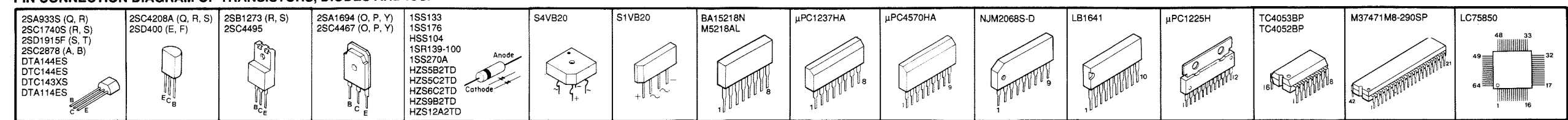
RESISTOR	PARTS NAME	CAPACITOR	PARTS NAME
NO MARK CARBON FILM RESISTOR (1/4W)	NO MARK ELECTROLYTIC CAPACITOR	NO MARK ELECTROLYTIC CAPACITOR	NO MARK ELECTROLYTIC CAPACITOR
METAL DIODE FILM RESISTOR	TANTALUM CAPACITOR	TANTALUM CAPACITOR	TANTALUM CAPACITOR
METAL FILM RESISTOR	NO MARK CERAMIC CAPACITOR	NO MARK CERAMIC CAPACITOR	NO MARK CERAMIC CAPACITOR
METAL PLATE RESISTOR	POLYESTER FILM CAPACITOR	POLYESTER FILM CAPACITOR	POLYESTER FILM CAPACITOR
FUSE FUSE CARBON FILM RESISTOR	POLYETHYLENE FILM CAPACITOR	POLYETHYLENE FILM CAPACITOR	POLYETHYLENE FILM CAPACITOR
SEMENT WOLDED RESISTOR	MICA CAPACITOR	MICA CAPACITOR	MICA CAPACITOR
SEMI VARIABLE RESISTOR	POLYPROPYLENE FILM CAPACITOR	POLYPROPYLENE FILM CAPACITOR	POLYPROPYLENE FILM CAPACITOR
CHIP RESISTOR	SEMICONDUCTIVE CERAMIC CAPACITOR	SEMICONDUCTIVE CERAMIC CAPACITOR	SEMICONDUCTIVE CERAMIC CAPACITOR

NOTICE
(J)..... Japanese model
(U)..... U.S.A. model
(C)..... Canadian model
(A)..... Australian model
(G)..... European model
(B)..... British model
(P)..... P.B. model



Mark	Reference	Parts Name	Parts Name
A1	1001	1001	1001
A2	1002, 1003-010	1002, 1003-010	1002, 1003-010
A3	1004, 1005-010	1004, 1005-010	1004, 1005-010

PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICs.

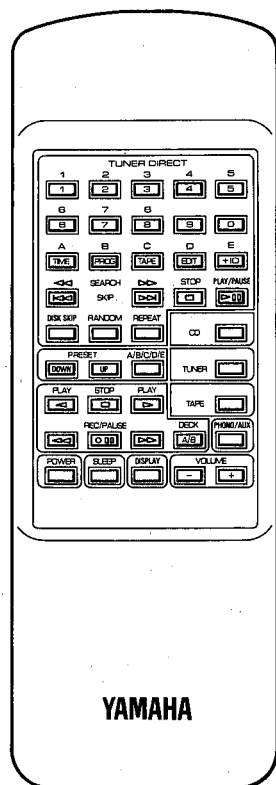
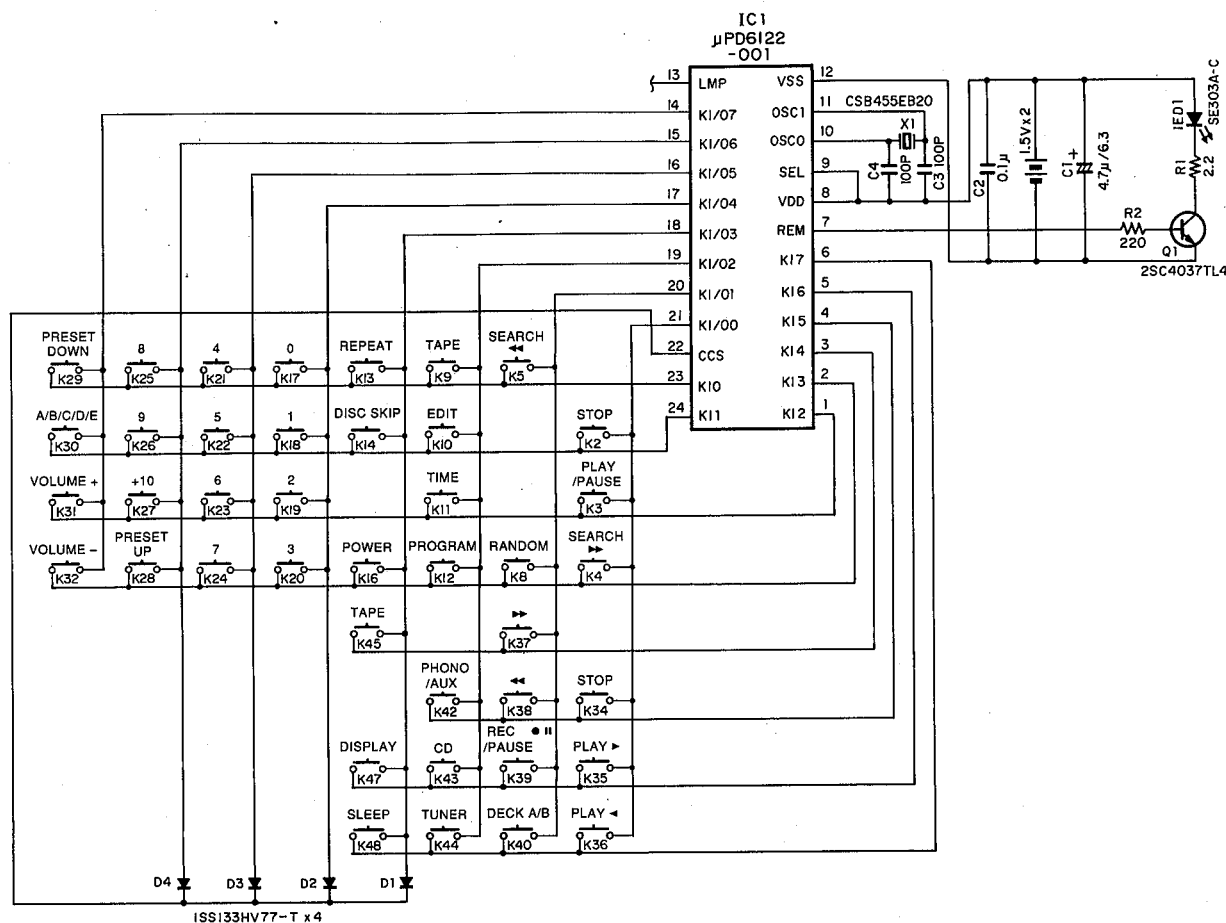


* All voltage are measured with a 10MΩ/V DC electric volt meter.
* Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
* Schematic diagram is subject to change without notice.

REMOTE CONTROL TRANSMITTER

SCHEMATIC DIAGRAM

RX-S70



Key No.	FUNCTION	DATA CODE								HEX
		D0	D1	D2	D3	D4	D5	D6	D7	
K2	STOP (CD)	1	0	0	0	0	0	0	0	01
K3	PLAY/PAUSE (CD)	0	1	0	0	0	0	0	0	02
K4	SEARCH <> (CD)	1	1	0	0	0	0	0	0	03
K5	SEARCH << (CD)	0	0	1	0	0	0	0	0	04
K6	SEARCH >> (CD)	1	1	1	0	0	0	0	0	07
K8	RANDOM (CD)	0	0	0	1	0	0	0	0	08
K9	TAPE (CD)	1	0	0	1	0	0	0	0	09
K10	EDIT (CD)	0	1	0	1	0	0	0	0	0A
K11	TIME (CD)	1	1	0	1	0	0	0	0	0B
K12	PROGRAM (CD)	0	0	1	1	0	0	0	0	0C
K13	REPEAT (CD)	1	0	1	1	0	0	0	0	0D
K14	DISC SKIP (CD)	0	1	1	1	0	0	0	0	0F
K16	POWER	1	0	1	1	1	0	0	0	10
K17	0 (CD)	0	0	0	0	1	0	0	0	11
K18	1 (CD)	1	0	0	0	1	0	0	0	12
K19	2 (CD)	0	1	0	0	1	0	0	0	13
K20	3 (CD)	1	1	0	0	1	0	0	0	14
K21	4 (CD)	0	0	1	0	1	0	0	0	15
K22	5 (CD)	1	0	1	0	1	0	0	0	16
K23	6 (CD)	0	1	1	0	1	0	0	0	17
K24	7 (CD)	1	1	1	0	1	0	0	0	18
K25	8 (CD)	0	0	0	1	1	0	0	0	19
K26	9 (CD)	1	0	0	1	1	0	0	0	1A
K27	+10 (CD)	0	1	0	1	1	0	0	0	1B
K28	PRESET UP (TUNER)	1	1	0	1	1	0	0	0	1C
K29	PRESET DOWN (TUNER)	0	0	1	1	1	0	0	0	1D
K30	A/B/C/D/E (TUNER)	1	0	1	1	1	0	0	0	1E
K31	VOLUME +	0	1	1	1	1	0	0	0	1F
K32	VOLUME -	1	1	1	1	1	0	0	0	41
K34	STOP (TAPE)	1	0	0	0	0	0	1	0	42
K35	PLAY > (TAPE)	0	1	0	0	0	0	1	0	43
K36	PLAY < (TAPE)	1	1	0	0	0	0	1	0	44
K37	>> (TAPE)	0	0	1	0	0	0	1	0	45
K38	<< (TAPE)	1	0	1	0	0	0	1	0	46
K39	REC/PAUSE <> (TAPE)	0	1	1	0	0	0	1	0	47
K40	DECK A/B (TAPE)	1	1	1	0	0	0	1	0	49
K42	PHONO/AUX	1	0	0	1	0	0	1	0	4A
K43	CD	0	1	0	1	0	0	1	0	4B
K44	TUNER	1	1	0	1	0	0	1	0	4C
K45	TAPE	0	0	1	1	0	0	1	0	4E
K47	DISPLAY	0	1	1	0	0	0	1	0	4F
K48	SLEEP	1	1	1	1	0	0	1	0	78
CUSTOM CODE		0	0	0	1	1	1	1	0	

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 parts No. of the carbon resistors, refer to 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.

MAIN P. C. B.

Schm Ref.	PART NO.	Description
* VQ347200	P.C.B.	MAIN(UC)
* VQ347300	P.C.B.	MAIN(R)
* VQ347400	P.C.B.	MAIN(A)
* VQ347500	P.C.B.	MAIN(B)
* VQ347600	P.C.B.	MAIN(G)
* CB201	VP694000	CN 14P
* CB202	VP694100	CN 15P
CB204	Vi377800	CN.BS.PIN 8P
CB205	Vi377800	CN.BS.PIN 8P
CB206	VA252300	CN 5P
CB207	VB994900	CN 9P
CB208	VM688900	CN.BS.PIN 10P
CB209	VD005000	CN.BS.PIN 7P
CB210	VD004800	CN.BS.PIN 5P
CB211	VD004500	CN.BS.PIN 2P
CB212	VG879900	CN.BS.PIN 2P
CB213	VP206500	HOLDER.FUS EYF-52BC
CB214	VP206500	HOLDER.FUS EYF-52BC
CB215	VP206500	HOLDER.FUS EYF-52BC
CB216	VP206500	HOLDER.FUS EYF-52BC
CB219	VD004900	CN.BS.PIN 6P
CB220	VP206500	HOLDER.FUS EYF-52BC
CB221	VP206500	HOLDER.FUS EYF-52BC
CB222	VP206500	HOLDER.FUS EYF-52BC
CB223	VP206500	HOLDER.FUS EYF-52BC
CB224	VP206500	HOLDER.FUS EYF-52BC(R)
CB225	VP206500	HOLDER.FUS EYF-52BC(R)
C201	VG278400	C.CE.TUBLR 220pF 50V(G)
C202	UG444100	C.CE 0.01uF 50V
C203	VG278400	C.CE.TUBLR 220pF 50V(G)
C204	VF964800	C.EL 100uF 16V
C205	VG278400	C.CE.TUBLR 220pF 50V
C206	UA653910	C.MYLAR 9100pF 50V
C207	UA654330	C.MYLAR 0.033uF 50V
C208	UA653910	C.MYLAR 9100pF 50V
C209	UA654330	C.MYLAR 0.033uF 50V
C210	VF964800	C.EL 100uF 16V
C211	VG278400	C.CE.TUBLR 220pF 50V
C212	VG278400	C.CE.TUBLR 220pF 50V(G)
C213	VG278400	C.CE.TUBLR 220pF 50V(G)
C214	VG278400	C.CE.TUBLR 220pF 50V(G)
C215	VG278400	C.CE.TUBLR 220pF 50V(G)
C216	VG278400	C.CE.TUBLR 220pF 50V(G)
C217	VG278400	C.CE.TUBLR 220pF 50V(G)
C218	VG278400	C.CE.TUBLR 220pF 50V(G)
C219	VG278400	C.CE.TUBLR 220pF 50V(G)
C220	VJ839200	C.EL 2.2uF 50V
C221	VF964800	C.EL 100uF 16V
C222	VF964800	C.EL 100uF 16V
C223	VJ839200	C.EL 2.2uF 50V
C224	VJ836900	C.EL 10uF 16V
C225	VJ836900	C.EL 10uF 16V
C226	VF964800	C.EL 100uF 16V

* New Parts

Schm Ref.	PART NO.	Description
C227	VJ839200	C.EL 2.2uF 50V
C228	VF466800	C.CE.TUBLR 100pF 50V
C229	VJ839100	C.EL 1uF 50V
C230	VF466700	C.CE.TUBLR 47pF 50V
C231	VF466700	C.CE.TUBLR 47pF 50V
C232	VJ839100	C.EL 1uF 50V
C233	VF466800	C.CE.TUBLR 100pF 50V
C234	VJ839200	C.EL 2.2uF 50V
C235	VF964800	C.EL 100uF 16V
C236	UG444100	C.CE 0.01uF 50V
C237	VF964800	C.EL 100uF 16V
C238	VF760000	C.EL 100uF 10V
C239	VF760000	C.EL 100uF 10V
* C240	VG273600	C.CE.TUBLR 15pF 50V
C241	UM416470	C.EL 4.7uF 50V
C242	VG278400	C.CE.TUBLR 220pF 50V
C243	UJ667470	C.EL 47uF 50V
C244	VG278400	C.CE.TUBLR 220pF 50V
C245	UM416470	C.EL 4.7uF 50V
C246	UA653330	C.MYLAR 3300pF 50V
C247	VJ838800	C.EL 0.22uF 50V
C248	VG278400	C.CE.TUBLR 220pF 50V
C249	UA654560	C.MYLAR 0.056uF 50V
C250	VF466800	C.CE.TUBLR 100pF 50V
C251	VJ839000	C.EL 0.47uF 50V
C252	VJ839000	C.EL 0.47uF 50V
C253	UA654560	C.MYLAR 0.056uF 50V
C254	VF466800	C.CE.TUBLR 100pF 50V
C255	VG278400	C.CE.TUBLR 220pF 50V
C256	VJ838800	C.EL 0.22uF 50V
C257	UA653330	C.MYLAR 3300pF 50V
C258	VF466800	C.CE.TUBLR 100pF 50V
C259	UJ667470	C.EL 47uF 50V
C260	VF466800	C.CE.TUBLR 100pF 50V
C261	U1367220	C.EL 22uF 50V
C262	UA655100	C.MYLAR 0.1uF 50V
C263	UA655150	C.MYLAR 0.15uF 50V
C264	VF964800	C.EL 100uF 16V
C265	UA655150	C.MYLAR 0.15uF 50V
C266	VF964800	C.EL 100uF 16V
C267	UA655100	C.MYLAR 0.1uF 50V
C268	U1367220	C.EL 22uF 50V
C269	VD930900	C.CE.SMI 0.1uF 25V
C271	UA654330	C.MYLAR 0.033uF 50V
C272	VG276200	C.CE.TUBLR 15pF 50V
C273	UJ668100	C.EL 100uF 50V
C274	UA655100	C.MYLAR 0.1uF 50V
C275	UA655220	C.MYLAR 0.22uF 50V
C276	UA655330	C.MYLAR 0.33uF 50V
C277	UA655220	C.MYLAR 0.22uF 50V
C278	UA655330	C.MYLAR 0.33uF 50V
C279	UA655100	C.MYLAR 0.1uF 50V
C281	VG276200	C.CE.TUBLR 15pF 50V

* New Parts

MAIN P. C. B.

RX-S70

Schm Ref.	PART NO.	Description
* C282	UA654330	C.MYLAR 0.033uF 50V
* C284	VQ353000	C.EL 22000uF 5.5V
C285	VD930900	C.CE.SMI 0.1uF 25V
C286	UA654470	C.MYLAR 0.047uF 50V
* C287	VN511200	C.EL 22uF 50V
* C288	VN511200	C.EL 22uF 50V
C289	UA654470	C.MYLAR 0.047uF 50V
C290	VJ839100	C.EL 1uF 50V
C291	VJ836900	C.EL 10uF 16V
C292	UJ638330	C.EL 330uF 16V
C293	VJ836900	C.EL 10uF 16V
C294	VJ836900	C.EL 10uF 16V
C295	Ui367220	C.EL 22uF 50V
C296	UJ667470	C.EL 47uF 50V
C297	UM416470	C.EL 4.7uF 50V
C298	UA654330	C.MYLAR 0.033uF 50V
* C299	VQ528400	C.EL 220uF 10V
C300	Ui367220	C.EL 22uF 50V
C301	UJ648470	C.EL 470uF 25V
C302	VJ839100	C.EL 1uF 50V
△ C303	VG632700	C.EL 8200uF 50V
C304	Ui367220	C.EL 22uF 50V
△ C305	VG632700	C.EL 8200uF 50V
C306	Vi862100	C.POL.MTL 0.047uF 100V
C307	Vi862100	C.POL.MTL 0.047uF 100V
C308	UA654100	C.MYLAR 0.01uF 50V(UCG)
C309	UA654100	C.MYLAR 0.01uF 50V(UCG)
C310	VF467300	C.CE.TUBLR 0.01uF 16V(UCG)
C311	VF467300	C.CE.TUBLR 0.01uF 16V(UCG)
* C312	VG722100	C.EL 1uF 50V
C313	VJ839000	C.EL 0.47uF 50V
C314	VJ839000	C.EL 0.47uF 50V
C315	Ui367220	C.EL 22uF 50V(BG)
C316	Ui367220	C.EL 22uF 50V(BG)
C319	VJ836900	C.EL 10uF 16V
C320	VJ836900	C.EL 10uF 16V
C321	VJ836900	C.EL 10uF 16V
C322	VJ836900	C.EL 10uF 16V
C323	UA654150	C.MYLAR 0.015uF 50V
C324	UA654150	C.MYLAR 0.015uF 50V
C325	UA655120	C.MYLAR 0.12uF 50V
C326	UA655120	C.MYLAR 0.12uF 50V
C327	VF466800	C.CE.TUBLR 100pF 50V
C328	VF466800	C.CE.TUBLR 100pF 50V
C329	VF466800	C.CE.TUBLR 100pF 50V
C330	VF466800	C.CE.TUBLR 100pF 50V
C331	VF466800	C.CE.TUBLR 100pF 50V
C332	VF466800	C.CE.TUBLR 100pF 50V
C333	VF466800	C.CE.TUBLR 100pF 50V
C334	VF467000	C.CE.TUBLR 1000pF 50V
C340	UG444100	C.CE 0.01uF 50V
* C341	VG273800	C.CE.TUBLR 18pF 50V
C342	VJ839100	C.EL 1uF 50V

* New Parts

Schm Ref.	PART NO.	Description
C343	VJ839100	C.EL 1uF 50V
C344	VJ839100	C.EL 1uF 50V
C345	VJ839100	C.EL 1uF 50V
C346	VG278800	C.CE.TUBLR 560pF 50V(G)
C347	VG278800	C.CE.TUBLR 560pF 50V(G)
C348	VF466800	C.CE.TUBLR 100pF 50V(UCG)
C349	VF466800	C.CE.TUBLR 100pF 50V(G)
C351	VG279400	C.CE.TUBLR 2200pF 16V(G)
C352	VG279400	C.CE.TUBLR 2200pF 16V(G)
* D201	VM974200	DIODE.ZENR HZS5C2TD 5.0V
D202	VD631600	DIODE 1SS133,176,HSS104
D206	VD631600	DIODE 1SS133,176,HSS104
D207	VD631600	DIODE 1SS133,176,HSS104
D208	VD631600	DIODE 1SS133,176,HSS104
D209	VD631600	DIODE 1SS133,176,HSS104
D210	VG437400	DIODE.ZENR MTZJ5.1B 5.1V
* D211	VM975500	DIODE.ZENR HZS12A2TD 12V
* D212	VM974500	DIODE.ZENR HZS6C2TD 6.0V
D213	VH801600	DIODE 1SR139-100
* D214	VM974500	DIODE.ZENR HZS6C2TD 6.0V
△ D215	1H001090	DIODE.BRG S4VB20 2.6A 200V
D216	VN008700	DIODE 1SS270A
D217	VD631600	DIODE 1SS133,176,HSS104
△ * D218	VQ379300	DIODE.BRG S1VB20 1.0A 200V
D222	VM975000	DIODE.ZENR HZS9B2TD 9.0V
D223	VM975000	DIODE.ZENR HZS9B2TD 9.0V
D224	VD631600	DIODE 1SS133,176,HSS104
D225	VD631600	DIODE 1SS133,176,HSS104
D226	VD631600	DIODE 1SS133,176,HSS104
D227	VD631600	DIODE 1SS133,176,HSS104
D228	VD631600	DIODE 1SS133,176,HSS104
D229	VD631600	DIODE 1SS133,176,HSS104
D230	VD631600	DIODE 1SS133,176,HSS104
D231	VD631600	DIODE 1SS133,176,HSS104
D232	VD631600	DIODE 1SS133,176,HSS104
D233	VD631600	DIODE 1SS133,176,HSS104
D234	VD631600	DIODE 1SS133,176,HSS104
△ F201	KB003060	FUSE TL1.6A 250V(ABG)
△ F201	KB003100	FUSE T4.0A 250V(R)
△ * F201	KB003620	FUSE T4.0A 125V(UC)
△ F202	KB003070	FUSE TL2.0A S(RABG)
△ F202	KB003570	FUSE T2.0A 250V(UC)
△ F203	KB003070	FUSE TL2.0A S(RABG)
△ F203	KB003570	FUSE T2.0A 250V(UC)
△ F204	KB003070	FUSE TL2.0A S(RABG)
△ F204	KB003570	FUSE T2.0A 250V(UC)
△ F205	KB003060	FUSE TL1.6A 250V(R)
IC201	XE322001	IC NJM2068S-D
IC203	XA053A00	IC TC4052BP
IC204	iG055100	IC TC4053BP
IC205	XF494A00	IC LB1641
IC206	XE322001	IC NJM2068S-D
IC210	XM288A00	IC M37471M8-290SP

* New Parts

MAIN P. C. B.

Schm Ref.	PART NO.	Description
IC211	XB247301	IC uPC4570HA
IC215	XG938A00	IC BA15218N
IC219	iG055100	IC TC4053BP
△ IC220	iG067100	IC uPC1225H
△ IC221	iG067100	IC uPC1225H
IC222	XH471A00	IC M5218AL
IC226	XF663A00	IC uPC1237HA
IC227	XB247301	IC uPC4570HA
IC228	XB247301	IC uPC4570HA
* L201	VP575600	COIL 1.5uH
* L202	VP575600	COIL 1.5uH
* PJ201	VQ260900	JACK.PIN 4P
Q201	VD678500	TR.DGT DTA114ES
Q202	iC287820	TR 2SC2878 A,B
Q203	iC287820	TR 2SC2878 A,B
Q204	VG722000	TR.DGT DTC144ES
Q205	VG721700	TR.DGT DTA144ES
Q206	iC174020	TR 2SC1740S R,S
Q207	iC174020	TR 2SC1740S R,S
Q208	VG721700	TR.DGT DTA144ES
Q209	VD488500	TR.DGT DTC143XS
△ Q210A	iX615750	TR 2SA1694 O,P,Y
△ Q210C	iX615760	TR 2SC4467 O,P,Y
△ Q212A	iX615750	TR 2SA1694 O,P,Y
△ Q212C	iX615760	TR 2SC4467 O,P,Y
△ Q215	VK407600	TR 2SC4208A Q,R,S
Q216	iA093320	TR 2SA933S Q,R
Q217	VG722000	TR.DGT DTC144ES
△ Q218	iC174020	TR 2SC1740S R,S
△ Q219	iD040040	TR 2SD400
△ Q220	VN996900	TR 2SC4495
Q221	VG722000	TR.DGT DTC144ES
△ Q222	VQ734700	TR 2SB1273 R,S
Q223	VG722000	TR.DGT DTC144ES
Q224	VG722000	TR.DGT DTC144ES
Q225	VG722000	TR.DGT DTC144ES
Q227	iC174020	TR 2SC1740S R,S
Q228	iC174020	TR 2SC1740S R,S
Q229	iA093320	TR 2SA933S Q,R
Q230	iA093320	TR 2SA933S Q,R
Q231	iC174020	TR 2SC1740S R,S
Q232	iC174020	TR 2SC1740S R,S
Q233	iA093320	TR 2SA933S Q,R
Q234	iA093320	TR 2SA933S Q,R
Q235	iC174020	TR 2SC1740S R,S
Q236	iC174020	TR 2SC1740S R,S
Q237	VD488500	TR.DGT DTC143XS
R229	HV454220	R.CAR.FP 22Ω 1/4W
R234	HV454220	R.CAR.FP 22Ω 1/4W
R249	HV454330	R.CAR.FP 33Ω 1/4W
R251	HV454220	R.CAR.FP 22Ω 1/4W
R252	HV454220	R.CAR.FP 22Ω 1/4W
R280	HV454680	R.CAR.FP 68Ω 1/4W

* New Parts

Schm Ref.	PART NO.	Description
R285	HV454680	R.CAR.FP 68Ω 1/4W
R286	HV454220	R.CAR.FP 22Ω 1/4W
R287	HV454220	R.CAR.FP 22Ω 1/4W
R299	HV453470	R.CAR.FP 4.7Ω 1/4W
△ R317	H2003780	R.MTL.PLAT 0.22Ω+0.22 5W
R318	HV454100	R.CAR.FP 10Ω 1/4W
R319	HV454100	R.CAR.FP 10Ω 1/4W
R328	HV454100	R.CAR.FP 10Ω 1/4W
R329	HV454100	R.CAR.FP 10Ω 1/4W
△ R330	H2003780	R.MTL.PLAT 0.22Ω+0.22 5W
△ R347	HV454330	R.CAR.FP 33Ω 1/4W
△ R351	VL380500	R.FUS 1Ω 1/4W
R355	HV453100	R.CAR.FP 1Ω 1/4W
* R356	HL315820	R.MTL.OXD 820Ω 1W
* R359	VN014000	R.WW 0.2Ω 3W
* R360	VN014000	R.WW 0.2Ω 3W
△ R374	VQ357200	R.WW 68Ω 5W
△ R414	VK186700	R.FUS 12Ω 1/4W
△ R415	VK186700	R.FUS 12Ω 1/4W
R418	VR046900	R.MTL.FLM 2.2Ω 3W(UC)
R419	VR046900	R.MTL.FLM 2.2Ω 3W(UC)
R420	VR046900	R.MTL.FLM 2.2Ω 3W(UC)
RY201	VC278600	RELAY G5R-2232P DC24V
SW201	VF541200	SW.SLIDE SSSF11(R)
* SW202	VQ073500	SW.SLIDE SSSU142-S06S-1(BG)
△ SW203	VA961800	VOLT.SELECT ESE-37247-F(R)
* TE201	VP692600	TERM.SP 4P
TP201	VL448600	JUMPER.TST
TP202	VL448600	JUMPER.TST
TP203	VL448600	JUMPER.TST
VR201	VJ693200	VR.TRIM B2.2KΩ
VR202	VJ693200	VR.TRIM B2.2KΩ
* XL201	VQ328900	RSNR.CRYS 32.768KHz
XL202	VD827600	RSNR.CE 4MHz
	VA119100	HEAT.SINK
	BB069510	GND.MTL No.6951
	BB071360	SCR.TERM 8.3x13
* VQ366200	HEAT.SINK	
EP600130	SCR.BND.HD 3x6	ZMC2-Y
EK930010	SCR.BW.HD 3x8-8	FCRM3-BL
* VQ368600	PUSH.RIVET P3555-B	
VL391100	RADIATOR OSH-2440-SPL	
* VP983300	HEAT.SINK	
VK195900	SHEET 19x24	
VK173200	SCR.TR 3x15	SP FCM3

* New Parts

SUB P. C. B.

Schm Ref.	PART NO.	Description
* C1	VQ347800	P.C.B. SUB(UC)
* C2	VQ347900	P.C.B. SUB(R)
* C3	VQ348000	P.C.B. SUB(A)
* C4	VQ348100	P.C.B. SUB(B)
* C5	VQ348200	P.C.B. SUB(G)
CB503	VP113500	CN.BS.PIN 10P
C1	VF467300	C.CE.TUBLR 0.01uF 16V
C2	VF467300	C.CE.TUBLR 0.01uF 16V(UCRA)
C3	VF467300	C.CE.TUBLR 0.01uF 16V
C4	VG290900	C.EL 10uF 50V
C5	VF467300	C.CE.TUBLR 0.01uF 16V
C6	VA777600	C.CE 180pF 50V(BG)
C7	VA777400	C.CE 120pF 50V(BG)
C8	UT452390	C.PP 390pF 100V
C9	VG272900	C.CE.TUBLR 4.7pF 50V(BG)
* C9	VG273600	C.CE.TUBLR 15pF 50V(UCRA)
C10	VF467300	C.CE.TUBLR 0.01uF 16V
C11	VF467300	C.CE.TUBLR 0.01uF 16V
C12	VF467300	C.CE.TUBLR 0.01uF 16V
C13	VA761400	C.CE 47pF 50V(BG)
C14	VF467300	C.CE.TUBLR 0.01uF 16V
C15	VF467300	C.CE.TUBLR 0.01uF 16V
C16	VG290500	C.EL 1uF 50V
C17	VJ839100	C.EL 1uF 50V(BG)
C18	VF467300	C.CE.TUBLR 0.01uF 16V
C19	VF467300	C.CE.TUBLR 0.01uF 16V
C20	VF467000	C.CE.TUBLR 1000pF 50V
C21	VG290900	C.EL 10uF 50V
C22	VG290900	C.EL 10uF 50V
C23	VG290900	C.EL 10uF 50V
C24	VF467000	C.CE.TUBLR 1000pF 50V
C25	VJ599000	C.CE.TUBLR 0.047uF 16V
C26	VJ599000	C.CE.TUBLR 0.047uF 16V(BG)
C27	VG290900	C.EL 10uF 50V
C28	VG290900	C.EL 10uF 50V
C29	VF466800	C.CE.TUBLR 100pF 50V(UCRAB)
C30	VG290600	C.EL 2.2uF 50V
C31	VF467300	C.CE.TUBLR 0.01uF 16V
C32	VG290500	C.EL 1uF 50V
C33	VG290700	C.EL 3.3uF 50V
C34	VF467300	C.CE.TUBLR 0.01uF 16V
C35	VG290900	C.EL 10uF 50V
C36	VF467000	C.CE.TUBLR 1000pF 50V
C37	VA761200	C.CE 33pF 50V
C38	VA761200	C.CE 33pF 50V
C39	VG290900	C.EL 10uF 50V
C40	VF466900	C.CE.TUBLR 470pF 50V
C41	VJ599000	C.CE.TUBLR 0.047uF 16V
C42	VG290500	C.EL 1uF 50V
C43	VG290500	C.EL 1uF 50V
C44	VG290300	C.EL 0.47uF 50V
C45	VG290500	C.EL 1uF 50V
C46	VJ599000	C.CE.TUBLR 0.047uF 16V

* New Parts

Schm Ref.	PART NO.	Description
C47	VG290900	C.EL 10uF 50V
C48	VF467000	C.CE.TUBLR 1000pF 50V(UCR)
C48	VG278700	C.CE.TUBLR 390pF 50V(G)
C48	VG278900	C.CE.TUBLR 680pF 50V(AB)
C49	VG290900	C.EL 10uF 50V
* C50	VQ535800	C.EL 2.2uF 50V
C51	VF467000	C.CE.TUBLR 1000pF 50V(UCR)
C51	VG278700	C.CE.TUBLR 390pF 50V(G)
C51	VG278900	C.CE.TUBLR 680pF 50V(AB)
C52	VG290700	C.EL 3.3uF 50V
C53	UA653390	C.MYLAR 3900pF 50V
C54	UA653390	C.MYLAR 3900pF 50V
C55	VG290700	C.EL 3.3uF 50V
C56	VA777400	C.CE 120pF 50V(G)
C57	VF466800	C.CE.TUBLR 100pF 50V(G)
C58	VG290900	C.EL 10uF 50V
* C501	VG722100	C.EL 1uF 50V
C502	UA655120	C.MYLAR 0.12uF 50V
C503	UA654330	C.MYLAR 0.033uF 50V
C504	UA654330	C.MYLAR 0.033uF 50V
C505	UA655120	C.MYLAR 0.12uF 50V
C506	VJ836900	C.EL 10uF 16V
C507	VJ599000	C.CE.TUBLR 0.047uF 16V
C508	VJ599000	C.CE.TUBLR 0.047uF 16V
C509	VF466900	C.CE.TUBLR 470pF 50V
C510	VF466900	C.CE.TUBLR 470pF 50V
C511	VF466900	C.CE.TUBLR 470pF 50V
C512	VF466900	C.CE.TUBLR 470pF 50V
C513	VF467000	C.CE.TUBLR 1000pF 50V(UCRAB)
C513	VJ599100	C.CE.TUBLR 0.1uF 50V(G)
C514	VJ599000	C.CE.TUBLR 0.047uF 16V(G)
C515	VJ599000	C.CE.TUBLR 0.047uF 16V(G)
D1	IF002200	DIODE.VAR SVC321
D2	IF002200	DIODE.VAR SVC321
D3	VD631600	DIODE 1SS133,176,HSS104
D4	VD631600	DIODE 1SS133,176,HSS(BG)
D5	VD631600	DIODE 1SS133,176,HSS104
D6	VD631600	DIODE 1SS133,176,HSS104
D7	VD631600	DIODE 1SS133,176,HSS104
D8	VD631600	DIODE 1SS133,176,HSS(BG)
D9	VD631600	DIODE 1SS133,176,HSS(BG)
IC1	XB760001	IC LA1266
IC2	XB818A00	IC LM7000N
IC3	IG158100	IC LA3401
* IC501	XM289A00	IC LC75850
* JK501	VP609800	JACK.MNI 1P YKB21-5151
L1	Vi546100	COIL 220uH
L2	GG000560	FLTR.CE SFE10.7MS3GHY-A
L3	VC867400	COIL.OS LW, 520uH(BG)
L4	VC867500	COIL.OS MW, 132uH(BG)
L4	VK646400	COIL.OS MW, 118uH(UCRA)
L5	VC867700	COIL.AT MW, 3.5MHz(BG)
L5	VK646500	COIL.AT MW, 340uH(UCRA)

* New Parts

SUB P. C. B.

Schm Ref.	PART NO.	Description
L6	VC867600	COIL.AT LW, 3.5MHz (BG)
L7	GG000560	FLTR.CE SFE10.7MS3GHY-A
L8	VC218600	COIL.DT.FM 10.7MHz
L9	GE100470	COIL.IF.AM 450KHz
L10	VC219000	FLTR.CE SFZ450JL3
L11	Vi546100	COIL 220uH
L12	Vi546100	COIL 220uH
* L13	VQ365700	FLTR.LP FB-7SG (G)
* L14	VQ138200	FLTR.LC 19KHz
* L15	VQ138200	FLTR.LC 19KHz
* PK1	VP458800	TUNER.PK FJ2U312A (UCRAB)
* PK1	VP458900	TUNER.PK FJ3E312A (G)
Q1	iC053540	TR 2SC535 A,B,C
Q2	iA093320	TR 2SA933S Q,R (BG)
Q3	iA093320	TR 2SA933S Q,R (BG)
Q4	iA093320	TR 2SA933S Q,R (BG)
Q5	iA093320	TR 2SA933S Q,R (BG)
Q6	iE104100	FET 2SK161 O,Y,GR
Q7	iC053540	TR 2SC535 A,B,C (BG)
Q8	VD678500	TR.DGT DTA114ES
Q9	VC218900	TR 2SC3330 R,S,T
Q10	VC218900	TR 2SC3330 R,S,T
Q11	VC218900	TR 2SC3330 R,S,T (BG)
Q12	VC218900	TR 2SC3330 R,S,T (BG)
Q13	VG721700	TR.DGT DTA144ES
Q14	VG722000	TR.DGT DTC144ES
Q15	VG721700	TR.DGT DTA144ES (BG)
SW501	VG392900	SW.TACT SKHVAA
SW502	VG392900	SW.TACT SKHVAA
SW503	VG392900	SW.TACT SKHVAA
SW504	VG392900	SW.TACT SKHVAA
SW505	VG392900	SW.TACT SKHVAA
SW506	VG392900	SW.TACT SKHVAA
SW507	VG392900	SW.TACT SKHVAA
SW508	VG392900	SW.TACT SKHVAA
SW509	VG392900	SW.TACT SKHVAA
SW510	VG392900	SW.TACT SKHVAA
SW511	VG392900	SW.TACT SKHVAA
SW513	VG392900	SW.TACT SKHVAA
SW514	VG392900	SW.TACT SKHVAA
SW515	VG392900	SW.TACT SKHVAA
SW516	VG392900	SW.TACT SKHVAA
SW517	VG392900	SW.TACT SKHVAA
TE1	LA005800	TERM.ANT YKD31-0215
U501	VG990800	L.DTCT GP1U521X
* V501	VQ062900	LCD LCD8255B1JP
VC1	VC463300	C.TRIM 7pF ECR-HA007A11
VC2	VC937300	C.TRIM 20pF (BG)
* VR501	VQ063300	VR A100K Ω
* VR503	VQ063100	VR B10K Ω
* VR504	VQ063200	VR B10K Ω
* VR505	VQ063000	VR MN5K Ω
XL1	QU003800	RSNR.CRYS 7.2MHz

* New Parts

Schm Ref.	PART NO.	Description
XL2	GG000750	RSNR.CE 18.95MHz
	BB071360	SCR.TERM 8.3x13 (G)
*	VQ368600	PUSH.RIVET P3555-B
*	VP984400	RFLCT
*	VP985300	SHEET.D
	VF444500	CAP.LAMP AG-4015
	VH471600	LAMP 115mA 14.5V

* New Parts

A

B

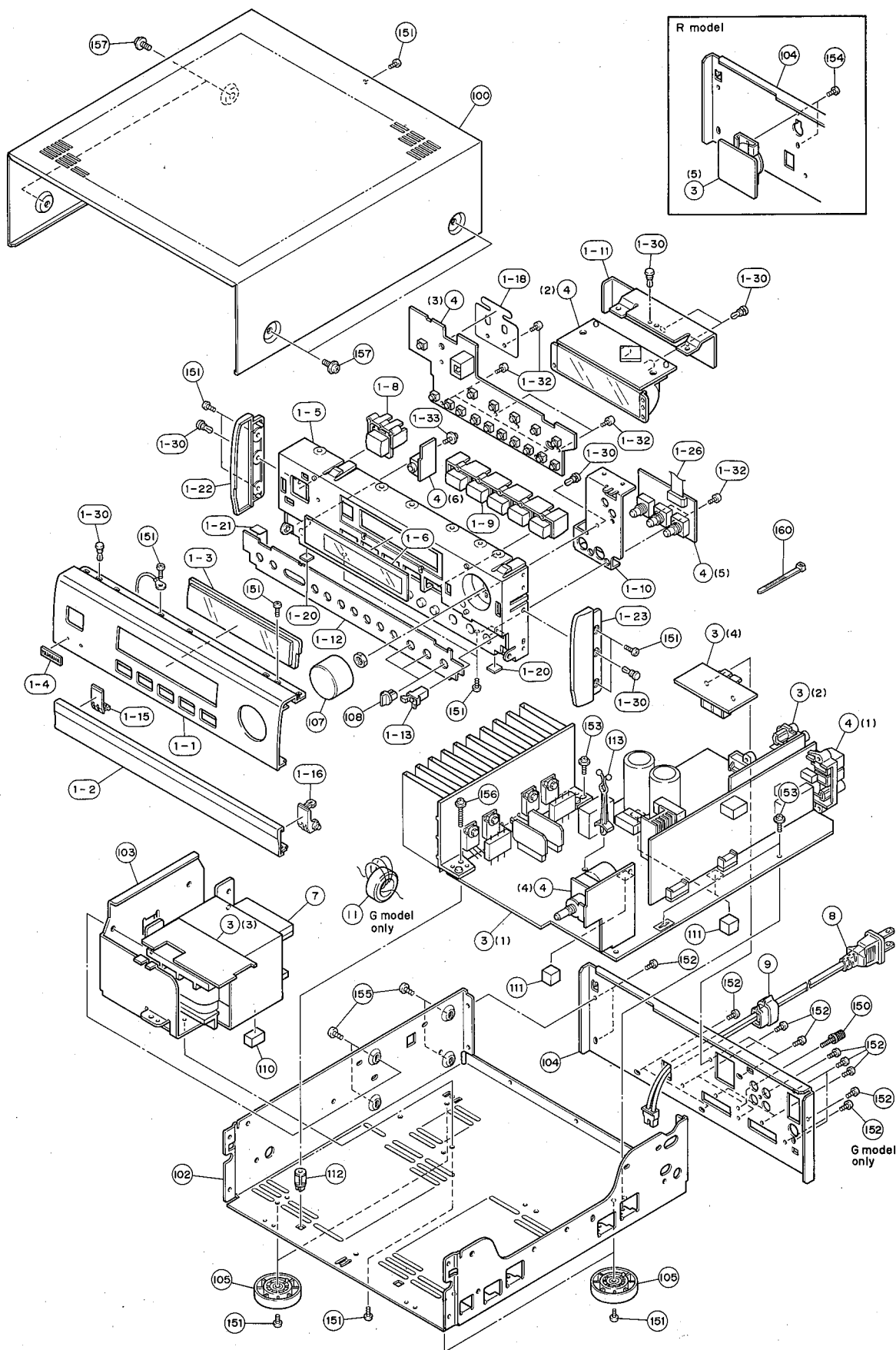
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D

E

RX-S70

EXPLODED VIEW



■ MECHANICAL PARTS Note) Ø : Diameter

Ref. No.	PART NO.	Description	Remarks	Markets
* 1- 1	VP983100	FRONT PANEL		
* 1- 2	VP983200	LID PANEL		
* 1- 3	VP984500	WINDOW PANEL		
* 1- 4	VQ058200	EMBLEM	22x6.5	
* 1- 5	VP983900	SUB PANEL		
* 1- 6	VP985200	SHEET, LCD		
* 1- 8	VP984000	BUTTON	16/18	
* 1- 9	VP984100	BUTTON, OP	OP	
* 1-10	VP982500	FRAME, VOL		
* 1-11	VP982300	FRAME, LCD		
* 1-12	VP983500	PLATE, SP		
* 1-13	VQ518800	LATCH	No.4U44	
* 1-15	VP984600	HINGE L		
* 1-16	VP984700	HINGE R		
* 1-18	VQ365800	SHEET, PROTECTOR		
* 1-20	VQ597200	CUSHION, LID		
* 1-21	VQ597700	TAPE, GROUND	FM8100	
* 1-22	VP984200	PLATE, SIDE L		
* 1-23	VP984300	PLATE, SIDE R		
* 1-26	VQ357300	CONNECTOR, FLAT CABLE	10P 100mm	
* 1-30	VQ368600	PUSH RIVET	P3555-B	
1-32	VF617600	PAN HEAD P-TITE SCREW	2.6x8 FCRM3-BL	
1-33	VA775100	BW HEAD P-TITE SCREW	3x8-10 FCRM3-BL	
* 3	VQ347200	P.C.B. ASS'y, MAIN		(UC)
* 3	VQ347300	P.C.B. ASS'y, MAIN		(R)
* 3	VQ347400	P.C.B. ASS'y, MAIN		(A)
* 3	VQ347500	P.C.B. ASS'y, MAIN		(B)
* 3	VQ347600	P.C.B. ASS'y, MAIN		(G)
* 4	VQ347800	P.C.B. ASS'y, SUB		(UC)
* 4	VQ347900	P.C.B. ASS'y, SUB		(R)
* 4	VQ348000	P.C.B. ASS'y, SUB		(A)
* 4	VQ348100	P.C.B. ASS'y, SUB		(B)
* 4	VQ348200	P.C.B. ASS'y, SUB		(G)
△ *	7	XM575A00	POWER TRANSFORMER	(UC)
△ *	7	XM576A00	POWER TRANSFORMER	(R)
△ *	7	XM577A00	POWER TRANSFORMER	(AB)
△ *	7	XM578A00	POWER TRANSFORMER	(G)
△	8	VL012900	POWER CORD ASS'y	(UC)
△	8	VL238100	POWER CORD ASS'y	(R)
△ *	8	VL238400	POWER CORD ASS'y	(A)
△	8	VL238900	POWER CORD ASS'y	(G)
△ *	8	VN804500	POWER CORD ASS'y	(B)
	9	VN158600	CORD STOPPER	No.2104
	11	VB933800	FERRITE CORE	BP53RB310190NOA
* 100	VP982100	TOP COVER		
* 102	VP982800	CHASSIS		
* 103	VP982200	FRAME, TRANSFORMER		
* 104	VP982900	REAR PANEL		(UC)
* 104	VP983000	REAR PANEL		(R)
* 104	VQ190600	REAR PANEL		(A)
* 104	VQ190800	REAR PANEL		(G)
* 104	VQ387000	REAR PANEL		(B)
* 105	VP984800	LEG	Ø41xH12.5	

* New Parts

Ref. No.	PART NO.	Description	Remarks	Markets
* 107	VQ362300	KNOB, V	Ø32	
* 108	VP985100	KNOB	Ø11	
* 110	VQ390100	DAMPER	8x8x15	
* 111	VQ366100	DAMPER, PCB		
112	Vi048500	SUPPORT, P.C.B.		
* 113	VQ406700	WIRE CRAMP	PCW-505	
150	AA627310	GROUND TERMINAL		
151	Ei330086	BIND HEAD B-TITE SCREW	3x8 FCRM3-BL	
152	EN301010	BIND HEAD BONDING TAP. SCREW	3x8 FCRM3-BL	
153	EX600700	BW HEAD TAPPING SCREW	3x8 FCM3-CU	
154	ED330066	BIND HEAD SCREW	3x6 FCRM3-BL	
155	Ei340806	BIND HEAD B-TITE SCREW	4x8 FCRM3-BL	
156	EX602560	BW HEAD P-TITE SCREW	3x20-8 FCRM3-BL	
157	EX601150	BW HEAD S-TITE SCREW	4x8-10 FNM3-BL	TI
160	CB069250	BINDING TIE	BK-1	
		ACCESSORIES		
* 200	VQ361700	REMOTE CONTROL TRANSMITTER	SBAU 41KEY	
200-1	CX674370	LID	54x32.9N3ALPS	
*	VQ147100	ANTENNA, FM	1P 1.4m	
*	VQ307400	AM LOOP ANTENNA	81-653-645-110	
		BATTERY, MANGANESE	SUM-3,AA,R06	

* New Parts

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

1/4W Type

1/6W Type

RX-S70

YAMAHA
