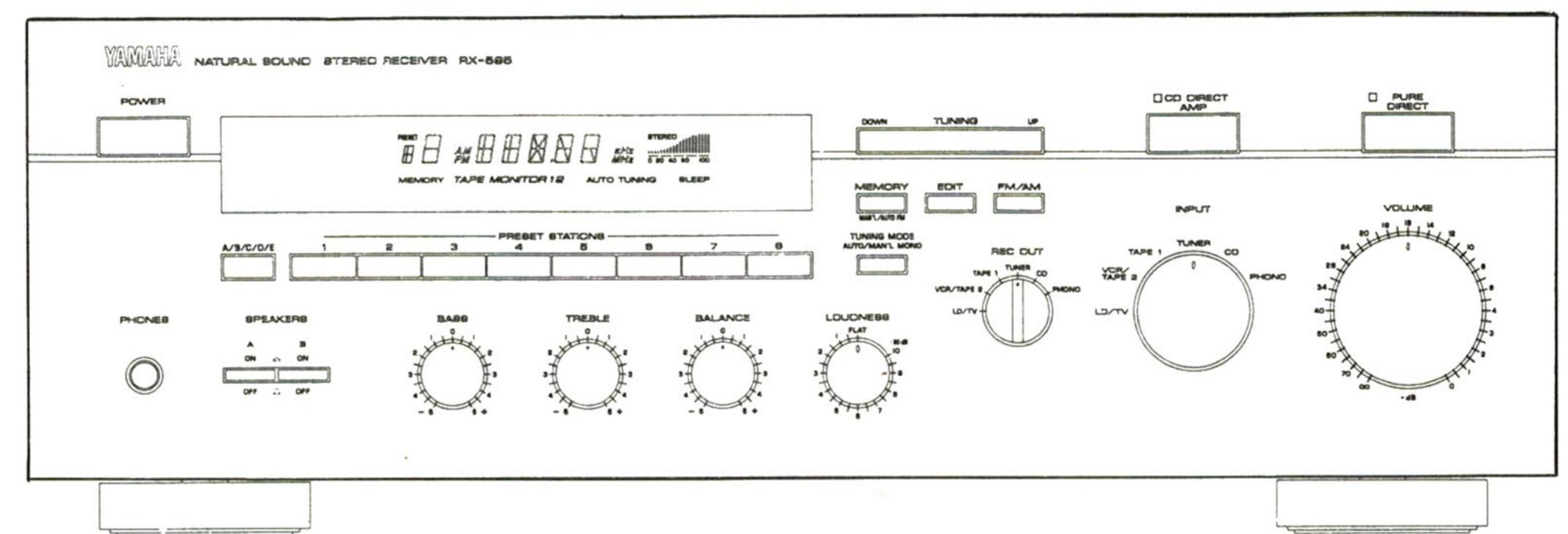
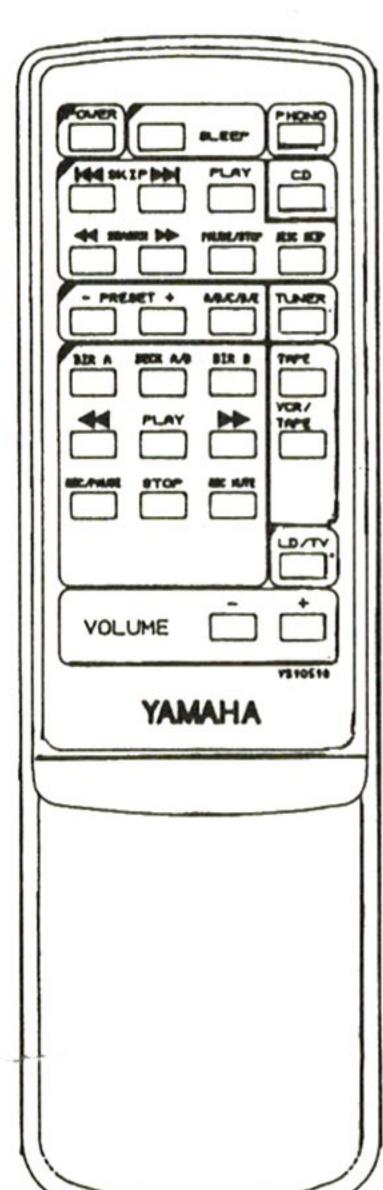
STEREO RECEIVER

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

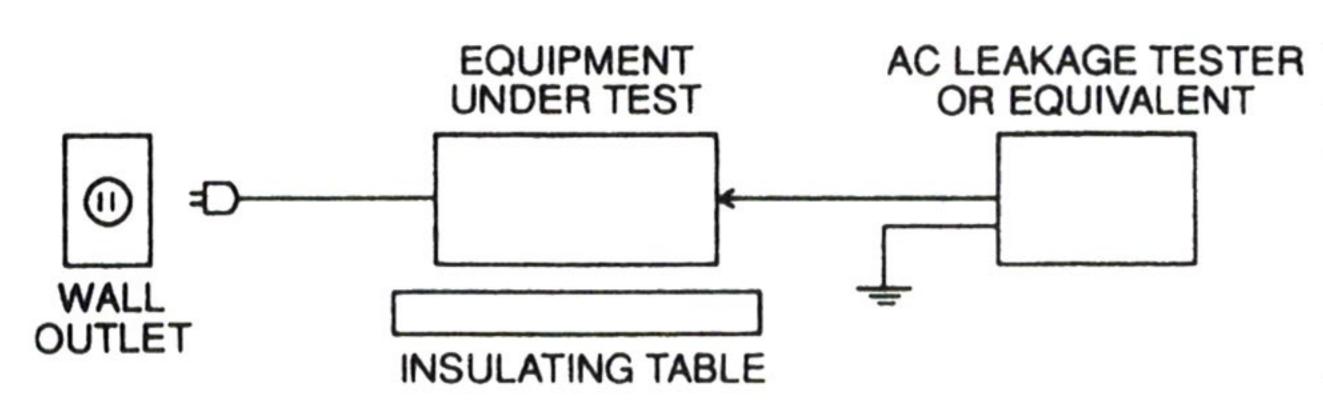
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TO SERVICE PERSONNEL

- 2. Leakage Current Measurement (For 120 V Model Only).
 - When service has been completed. It is imperative that you verify that all exposed conductive surfaces are properly insulated from supply circuits.
- Meter impedance should be equivalent to 1500 ohms shunted by 0.15 μF.
- Leakage current must not exceed 0.5 mA.
- 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.

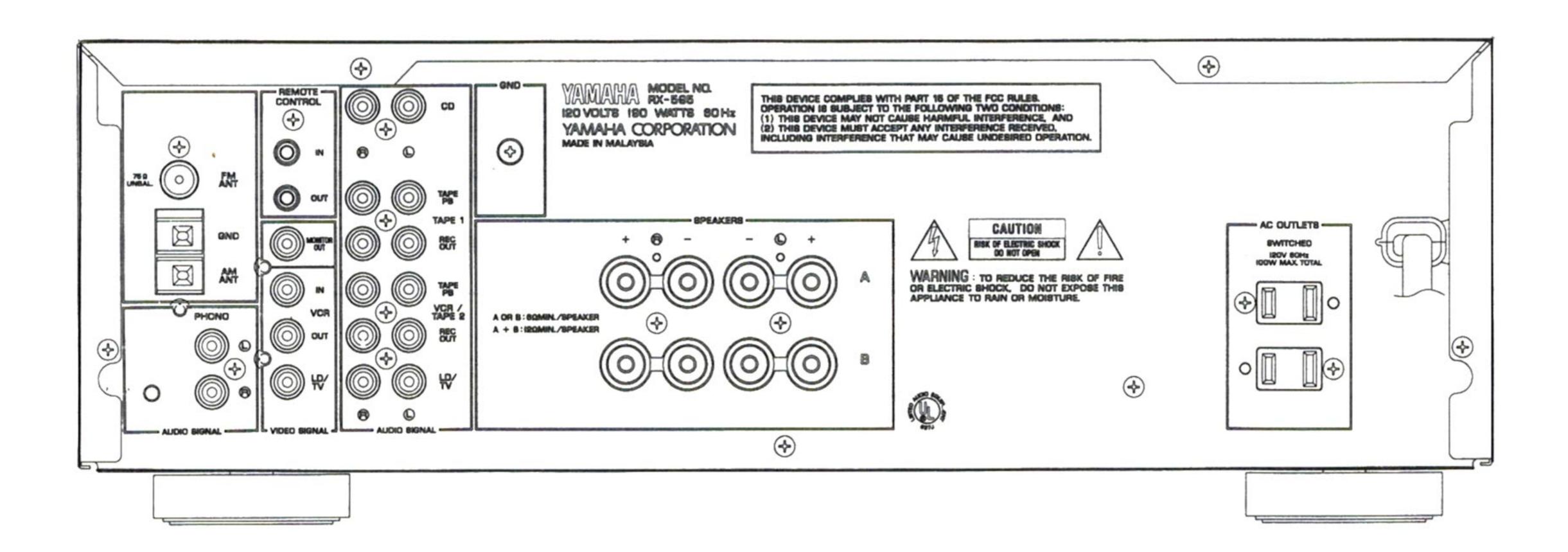
DO NOT PLACE SOLDER. ELECTRICAL/ ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHAT SO EVER!

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

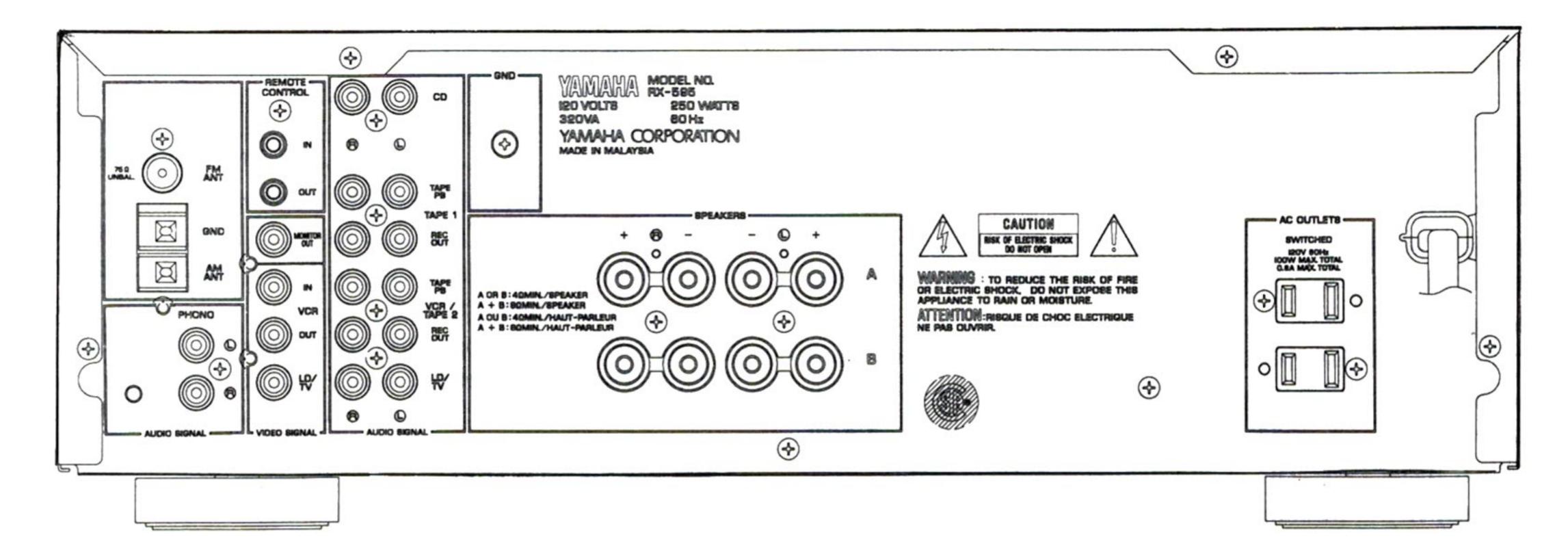
If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

REAR PANELS

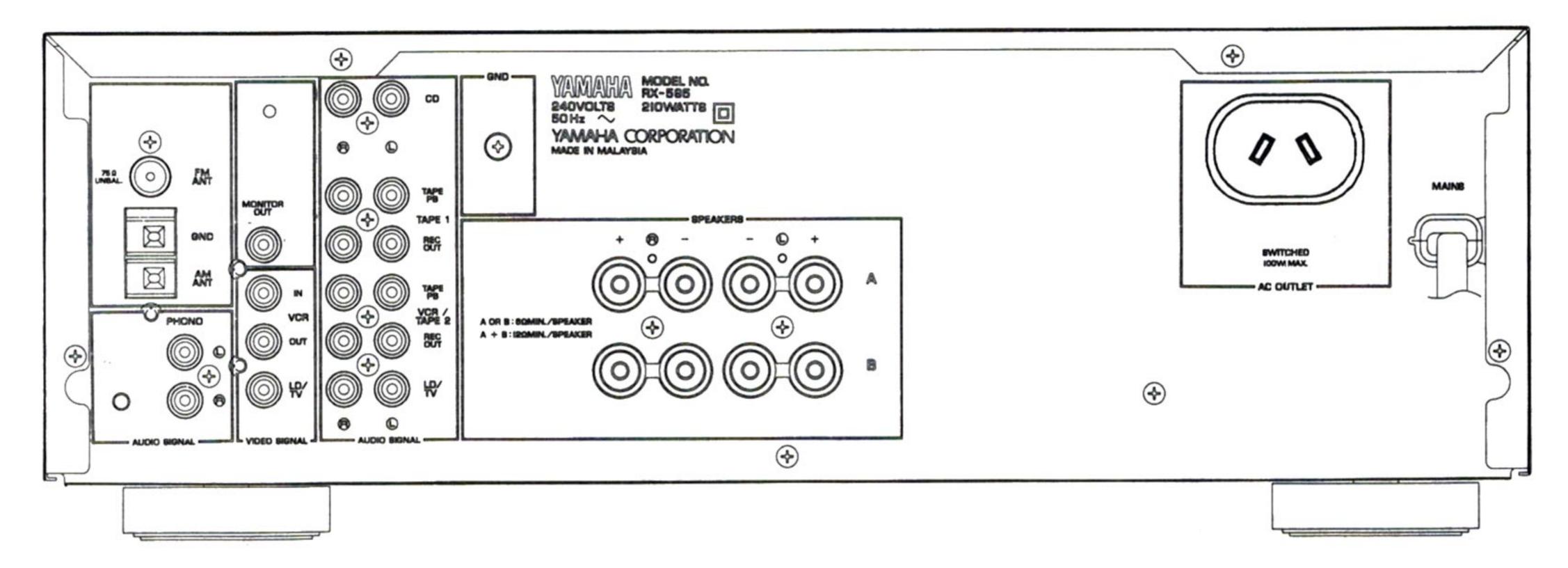
U model



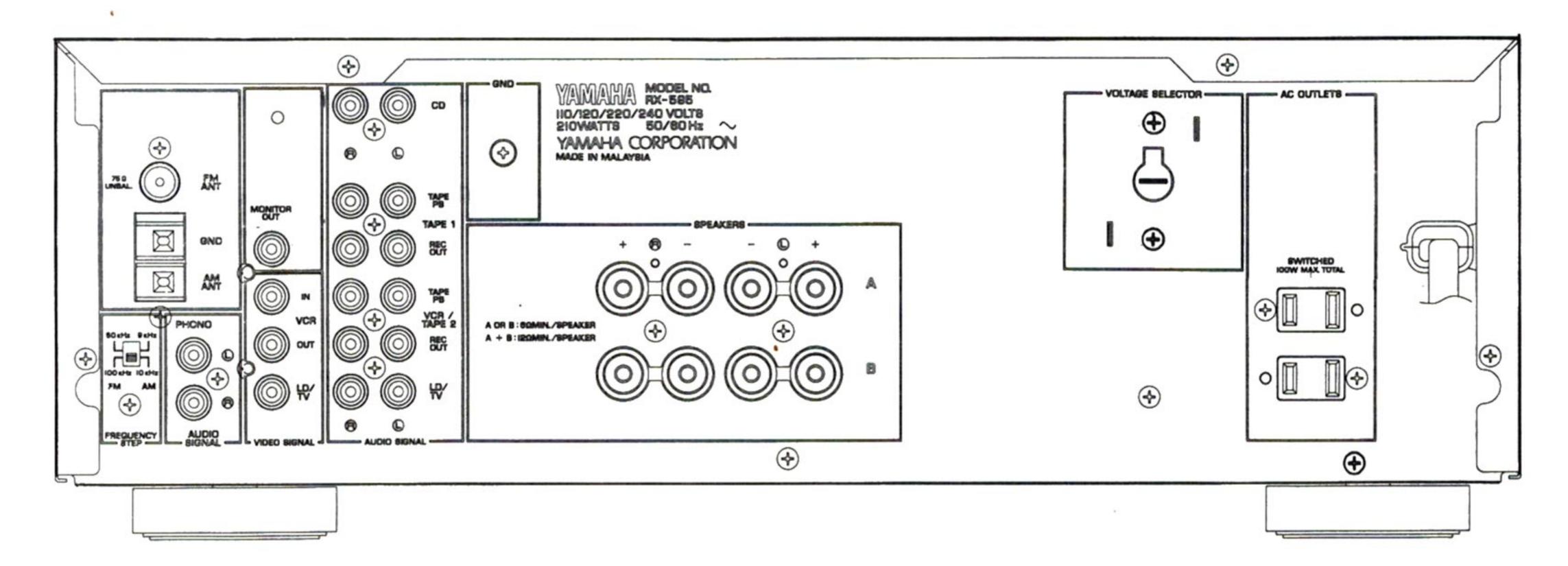
C model



A model



R model



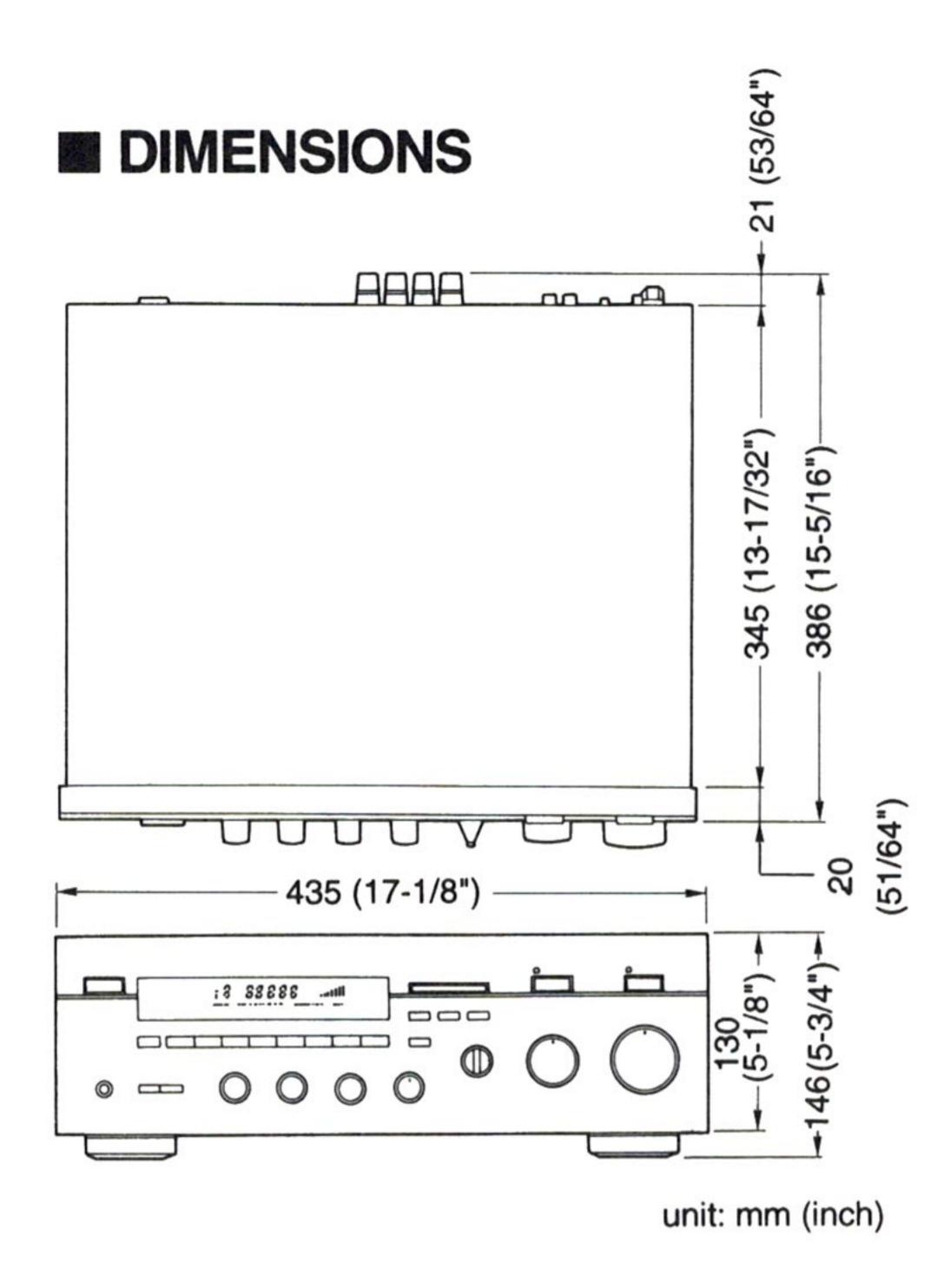
SPECIFICATIONS

AUDIO SECTION
Minimum RMS Output Power per Channel
8 ohms, 20Hz to 20kHz, 0.019% THD80W
6 ohms, 20Hz to 20kHz, 0.038% THD90W
Dynamic Power per Channel (IHF)
8/6/4/2 ohms
Power Band Width
8 ohms, 40W, 0.038% THD 10Hz to 50kHz
Damping Factor
8 ohms, 20Hz to 20kHz240 or more
Maximum Power (EIAJ) (R model only)
8 ohms, 1kHz, 10% THD130W
6 ohms, 1kHz, 10% THD150W
Input Sensitivity/Impedance
PHONO MM
CD etc 150mV/47k-ohms
Maximum Input Signal Level (1kHz, 0.003% THD)
PHONO MM115mV
Output Level/Impedance
REC OUT
Headphone Jack Rated Output/Impedance
0.019% THD, RL = 80hms 0.3V/680 ohms
Frequency Response (20Hz to 20kHz)
CD etc 0±0.5dB
RIAA Equalization Deviation (20Hz to 20kHz) PHONO MM
Total Harmonic Distortion (20Hz to 20kHz)
PHONO MM to REC OUT (3V)
Intermodulation Distortion
CD etc. (Rated Output/8 ohms)
Signal-to-Noise Ratio (IHF-A Network)
PHONO MM (5mV Input Shorted)88dB
CD etc. (Shorted)110dB
Residual Noise (IHF-A Network)
CD DIRECT AMP SW ON35μV
PURE DIRECT SW ON90μV
Channel Separation (1kHz, Vol30dB))
CD etc. (Input 5.1k-ohms Terminated,
1kHz/10kHz)65/50dB
Tone Control Characteristics
BASS : Boost/cut±10dB (20Hz)
Turnover Frequency350Hz
TREBLE : Boost/cut±10dB (20kHz)
Turnover Frequency
Continuous Loudness Control
(Level related equalization) Gain Tracking Error (0 to -60dB)2dB
M AM SECTION
Tuning Range
U, C models
A model531 to 1,611kHz R model530 to 1,710/531 to 1,611kHz
Usable Sensitivity
Signal-to-Noise Ratio
Image Response Ratio40dB
Spurious Response Ratio50dB
Harmonic Distortion (400Hz)
AUDIO SECTION
Output Level/Impedance
FM (100% mod., 1kHz)500mV/2.2k-ohms
AM (30% mod., 400Hz)150mV/2.2k-ohms

FM SECTION Tuning Range	ge
Tuning Range	
	87.5 to 107.9MHz
A model	87.5 to 108.0MHz
R model	87.5 to 107.9/87.5 to 108.0MHz
50dB Quleting Sensitivity (IHF,	75 ohms)
	1.55μV (15.1dBf)
	21µV (37.7dBf)
Usable Sensitivity (75 ohms)	
	% mod.)0.8μV (9.3dBf)
Image Response Ratio	· · · · · · · · · · · · · · · · · · ·
IF Response Ratio	
Spurious Response Ratio	
AM Suppression Ratio	
Capture Ratio	1.5dB
Alternate Channel Selectivity	85dB
Signal-to-Noise Ratio (IHF)	
Mono/Stereo	80/75dB
Frequency Response	
	0 ± 1.5dB
Stereo Separation (1kHz)	50dB
GENERAL	
Power Supply	
Power Supply U, C models	AC 120V, 60Hz
Power Supply U, C models	AC 120V, 60Hz AC 240V, 50Hz
Power Supply U, C models	AC 120V, 60Hz AC 240V, 50Hz
Power Supply U, C models	AC 120V, 60Hz AC 240V, 50Hz AC 110/120/220/240V, 60/50Hz
Power Supply U, C models A model R model Power Consumption U model	AC 120V, 60Hz AC 240V, 50Hz AC 110/120/220/240V, 60/50Hz
Power Supply U, C models A model R model Power Consumption U model C model	AC 120V, 60Hz AC 240V, 50Hz AC 110/120/220/240V, 60/50Hz 190W
Power Supply U, C models A model R model Power Consumption U model C model R, A models	AC 120V, 60Hz AC 240V, 50Hz AC 110/120/220/240V, 60/50Hz 190W
Power Supply U, C models A model R model Power Consumption U model C model R, A models AC Outlets	AC 120V, 60Hz AC 240V, 50Hz AC 110/120/220/240V, 60/50Hz 190W 250W (320 VA)
Power Supply U, C models A model R model Power Consumption U model C model R, A models AC Outlets U, C, R models: Switched x 2.	
Power Supply U, C models A model R model Power Consumption U model C model R, A models AC Outlets U, C, R models: Switched x 2. A model: Switched x 1	
Power Supply U, C models A model R model Power Consumption U model C model R, A models AC Outlets U, C, R models: Switched x 2.	
Power Supply U, C models A model R model Power Consumption U model C model R, A models AC Outlets U, C, R models: Switched x 2. A model: Switched x 1	
Power Supply U, C models A model R model Power Consumption U model C model R, A models AC Outlets U, C, R models: Switched x 2. A model: Switched x 1	
Power Supply U, C models A model R model Power Consumption U model C model R, A models AC Outlets U, C, R models: Switched x 2. A model: Switched x 1	
Power Supply U, C models	
Power Supply U, C models	
Power Supply U, C models	

^{*} Specifications subject to change without notice.

UUSA model	A Australian model
C Canadian model	R General model



DISASSEMBLY PROCEDURES

(Remove parts in disassembly order as numbered)

1. Removal of Top Cover

Remove 8 screws (1) in Fig. 1, and slide the Top Cover back.

2. Removal of Bottom Cover

Remove 6 screws (2) in Fig. 1.

3. Removal of Front Panel

Remove 6 screws (3) in Fig. 2.

4. Removal of Rear Panel

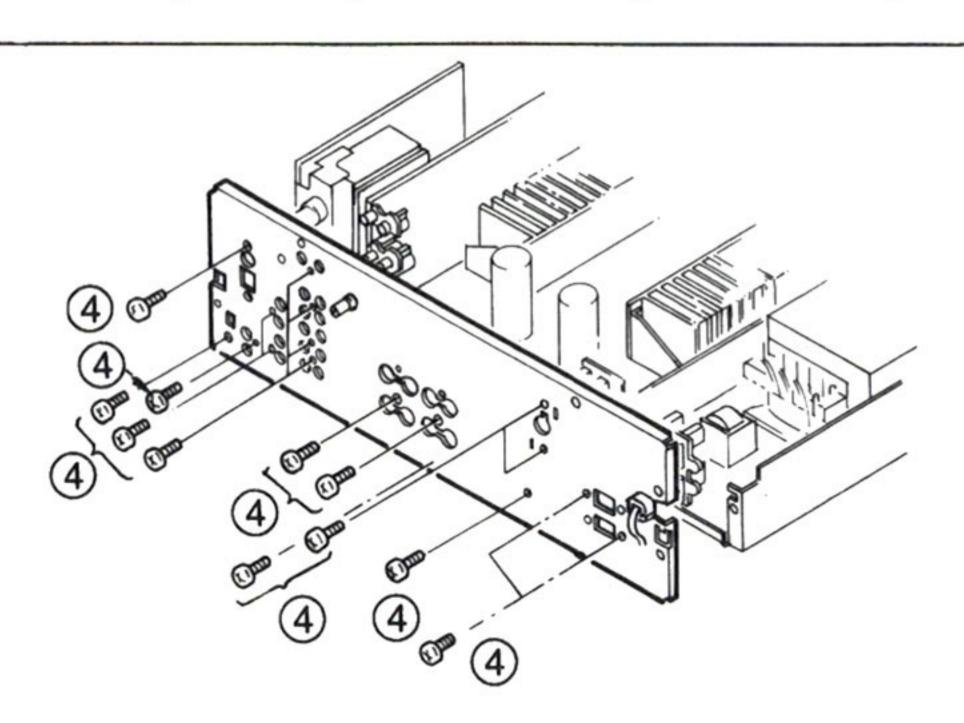
Remove 17 screws (4) in Fig. 3.

Precautions for Replacement of Input Selector Switch

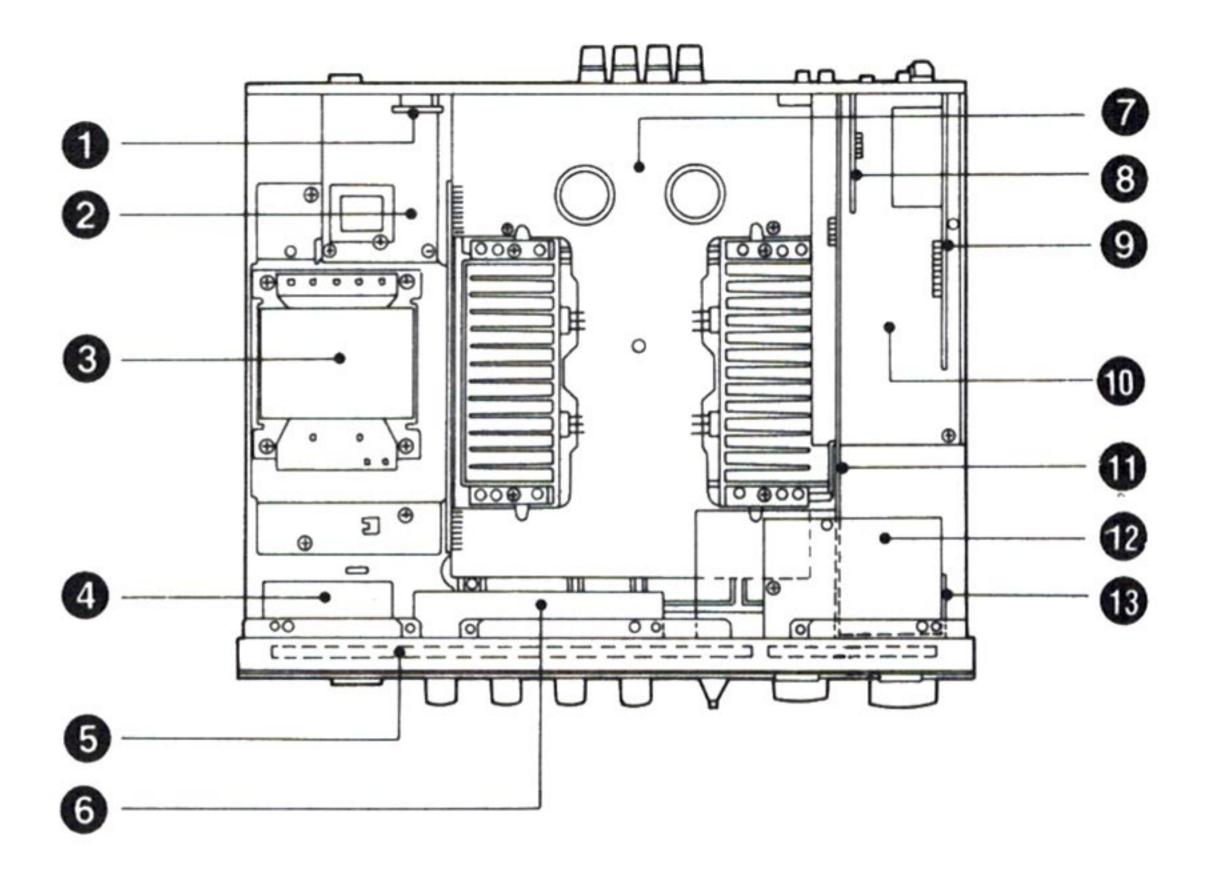
Make sure to perform initial setting of the input selector switch after its replacement.

How to perform initial setting

Position the selector switch at the mid-point between the CD position and TUNER position and turn ON the POWER switch. Then the SELECTOR switch turns automatically till it stops at the "CD" position finally.

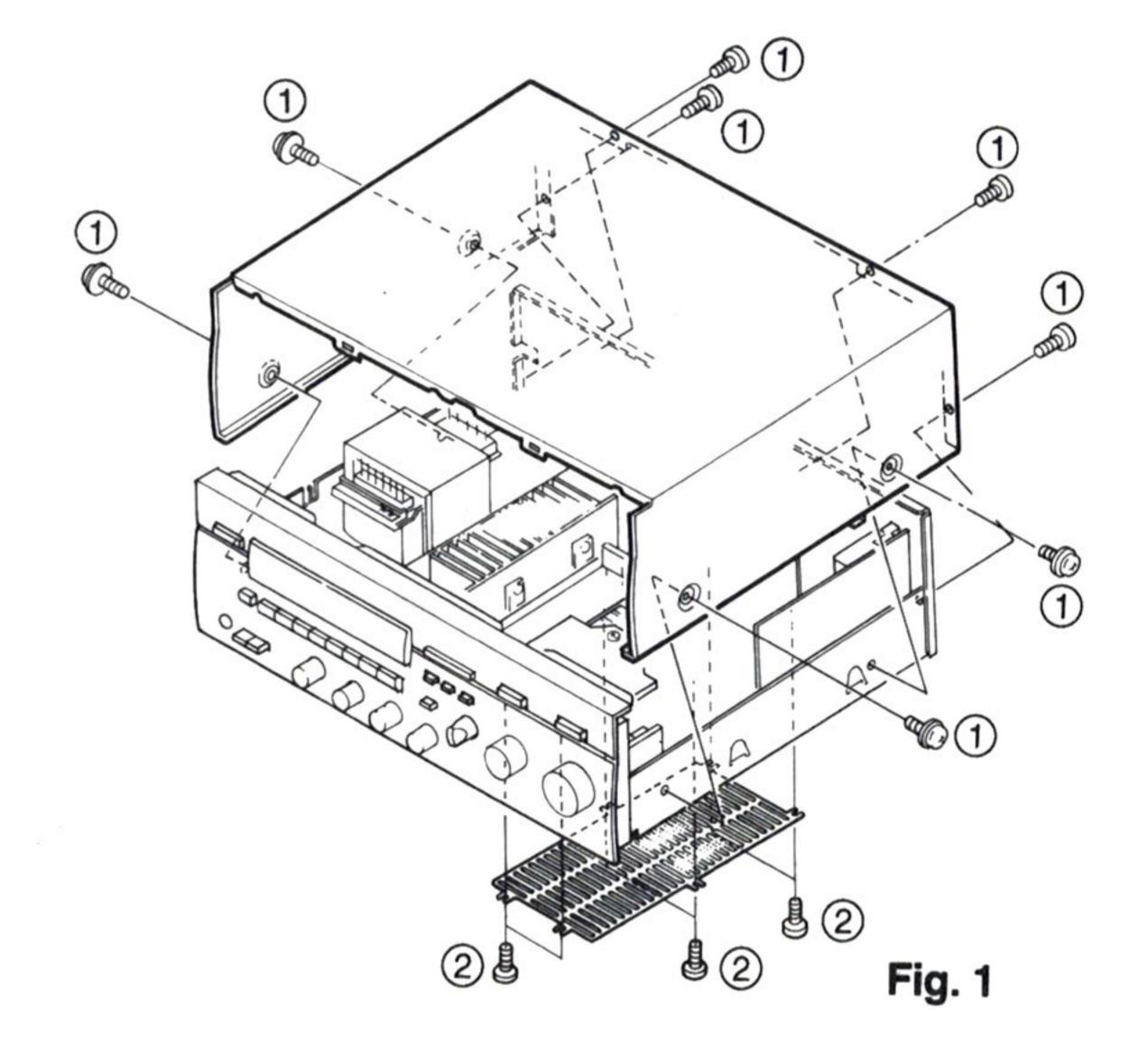


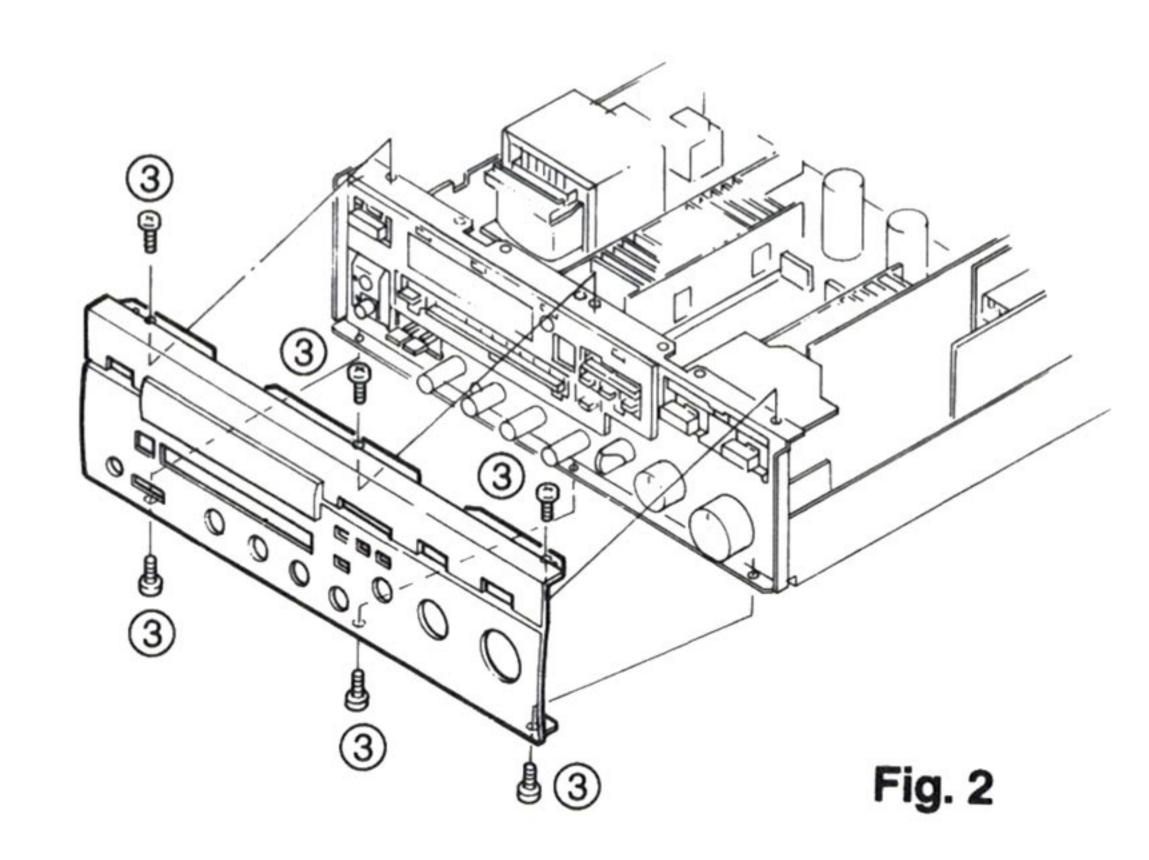
INTERNAL VIEW



- **1** MAIN P.C.B. (6)
- 2 MAIN P.C.B. (2)
- **3** POWER TRANSFORMER
- FUNCTION P.C.B. (7)
- GOPERATION P.C.B. (1)
- 6 FUNCTION P.C.B. (4)
- **MAIN P.C.B.** (1)

- 3 OPERATION P.C.B. (2)
- TUNER P.C.B.
- TUNCTION P.C.B. (5)
- **1** FUNCTION P.C.B. (1, 2)
- PFUNCTION P.C.B. (3)
- FUNCTION P.C.B. (6)





AMP ADJUSTMENTS

1. Before Adjustment

Make sure that AC line voltage is within:

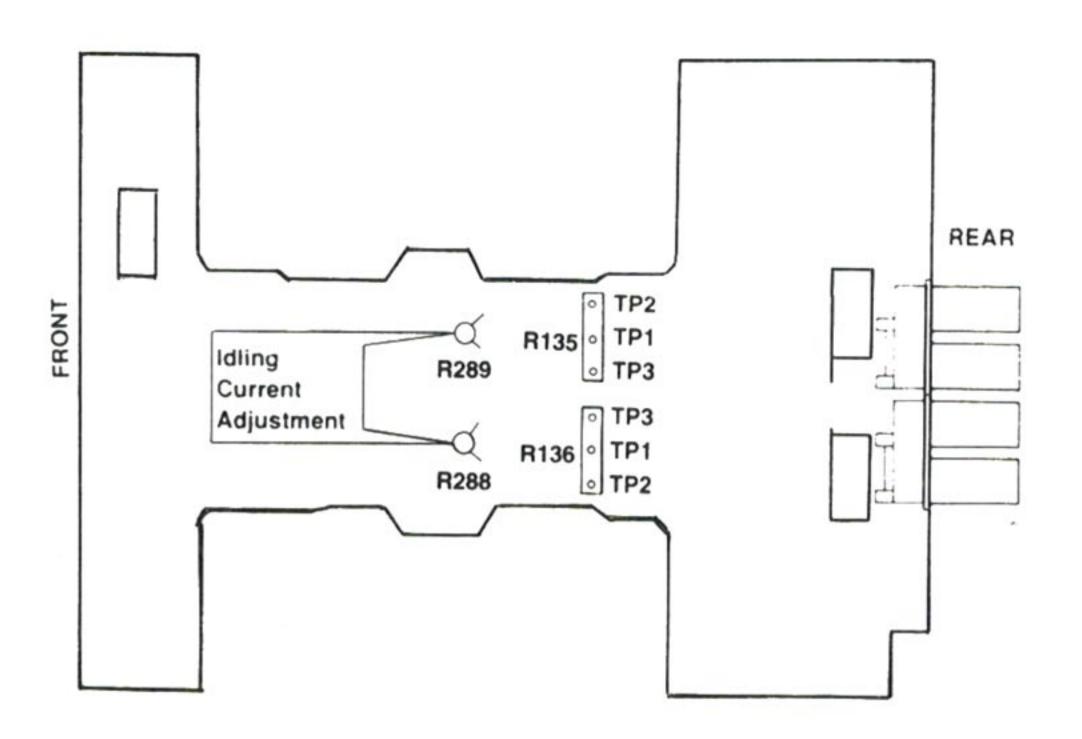
Models	AC line voltage					
U, C	120 V ± 10%					
Α	240 V ± 10%					
R	110/120/220/240 V ±10 %					

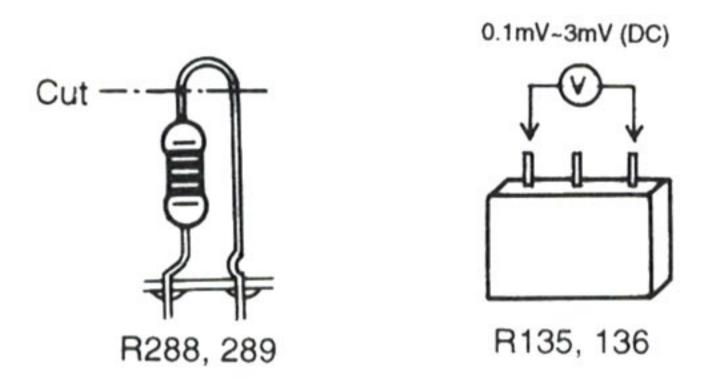
2. Instruments required

- AC VM or dual channel AC VM
- DC VM

IDLING CURRENT ADJUSTMENT

- When replacing the power and drive transistors, confirm idling current.
- After the power has been turned on, confirm that the voltage across R135 (Lch), R136 (Rch) is between 0.15 mV to 4 mV.
 - If it exceeds 4.1 mV, open (cut off) R289 (Lch) or R288 (Rch) and reconfirm it.
- As the idling current is changed by passing time, the voltage should be between 0.5 mV to 15 mV after 1 hour.
- If R289 (Lch) or R288 (Rch) have been already cut and the idling current does not flow, re-solder the resistor (1kΩ) at R289 (Lch) or R288 (Rch).
- Q117 and Q118 are transistors for temperature correction. Apply silicone grease to the contact surface with the heat sink.





	Test points	Confirmation point	Rating
Lch	Across the terminals of R135 (TP1 and 2 or 1 and 3)	R289	0.15~4mV
Rch	Across the terminals of R136 (TP1 and 2 or 1 and 3)	R288	0.15~4mV

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								
В								
С								
D								
F								

How to start

Turn the POWER Switch on while pressing the P6 and P8 keys simultaneously, and enters the TEST mode for the display check.

Content of the TEST mode key

P1 key: The DISPLAY light on all segment. P2 key: The DISPLAY light off all segment.

How to cancel

When push the P3 ~ 8 keys, mode switches the NORMAL mode.

Factory Preset

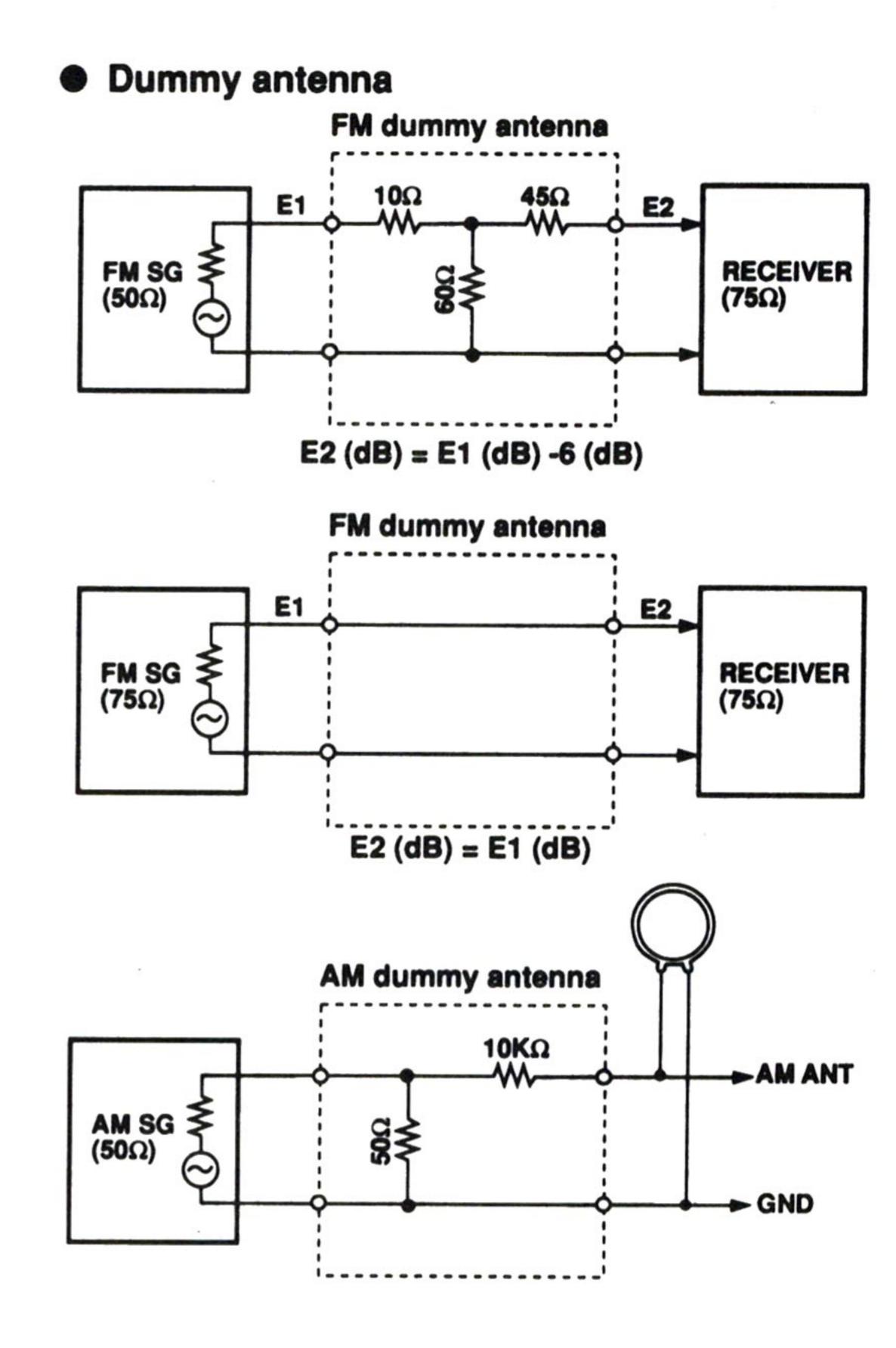
Preset group	P1	P2	P3	P4
A/C/E	87.5MHz	90.1MHz	95.1MHz	98.1MHz
B/D	630kHz	1080kHz	1440kHz	530kHz (U, C) 531kHz (R, A)

Preset group	P5	P5 P6		P8	
A/C/E	107.9MHz (U, C) 108MHz (R, A)	88.1MHz	106.1MHz	107.9MHz (U, C) 108MHz (R, A)	
B/D 1710kHz (U, C) 1611kHz (R, A)		900kHz	1350kHz	1400kHz (U, C) 1404kHz (R, A)	

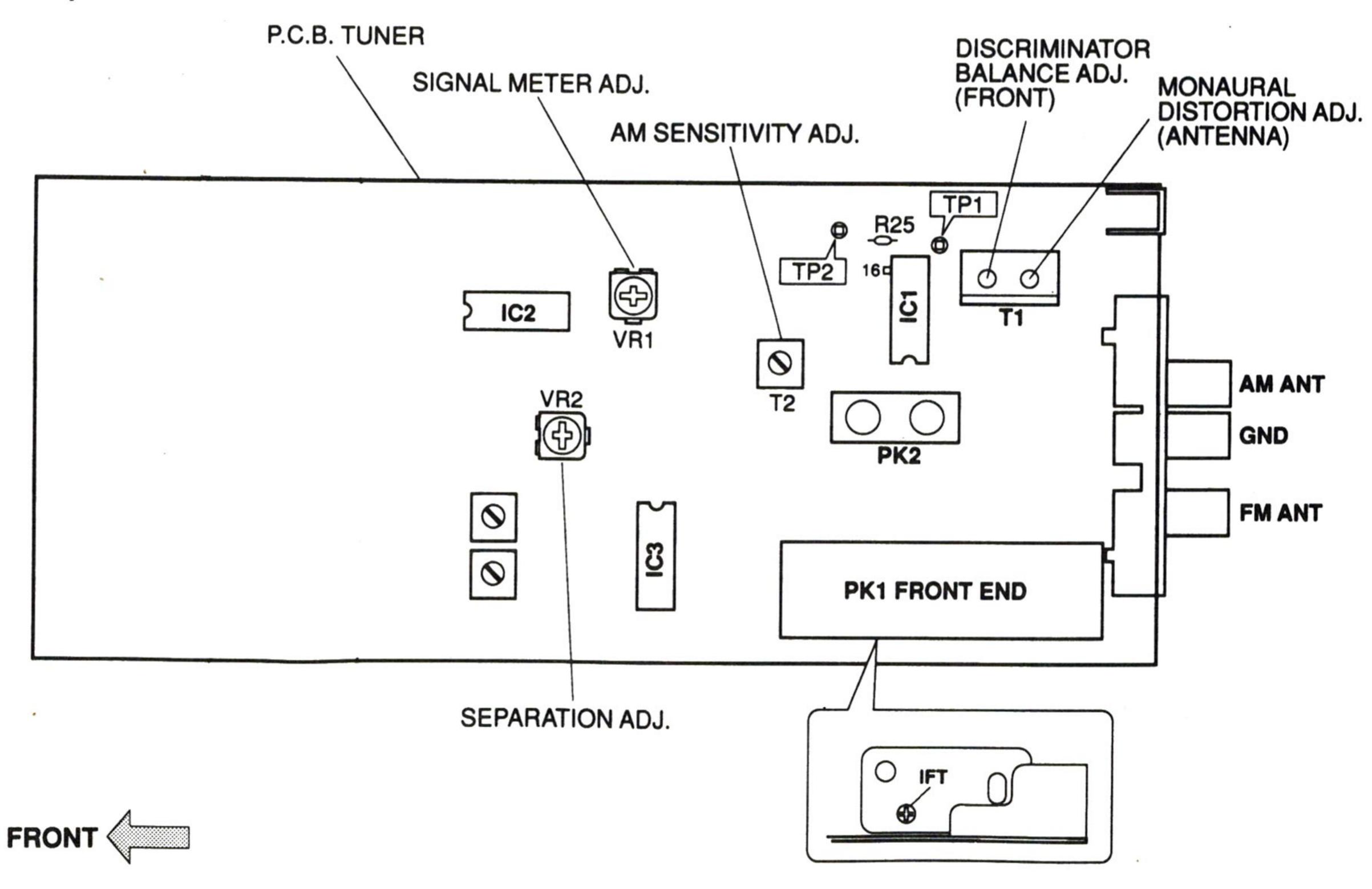
For all the above, AUTO TUNING and AUTO STEREO are selected as the TUNING mode.

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, fc=15kHz)
Oscillator



Test point



FM Adjustment

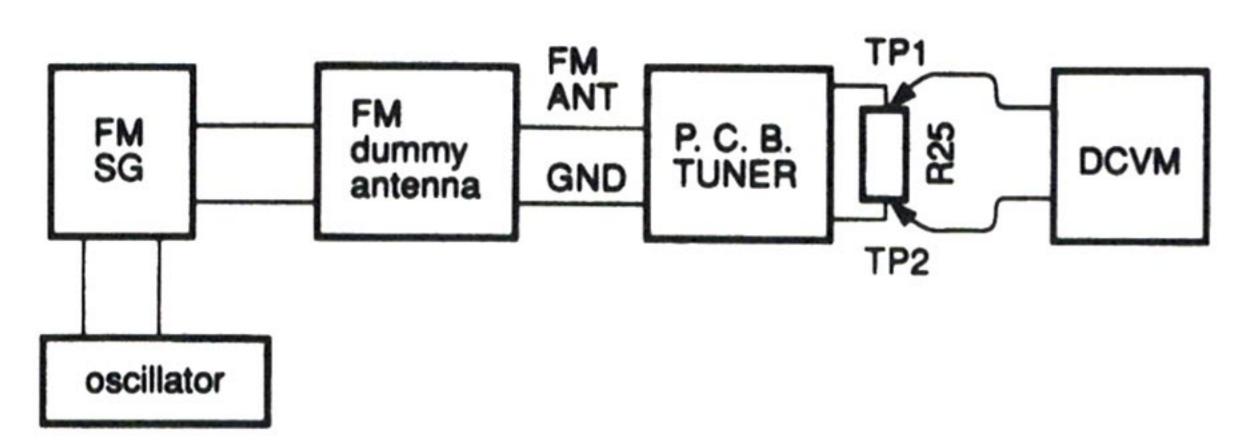
Before Adjustment

- For dB, 1μV=0dBμ applies.
 Example : 60dBμ=1mV
- 2) 100% modulation means that the frequency deviation is 75kHz.
- 3) Install the Matching Transformer and connect FM SG.
- Set each switch at the following position unless otherwise specified.

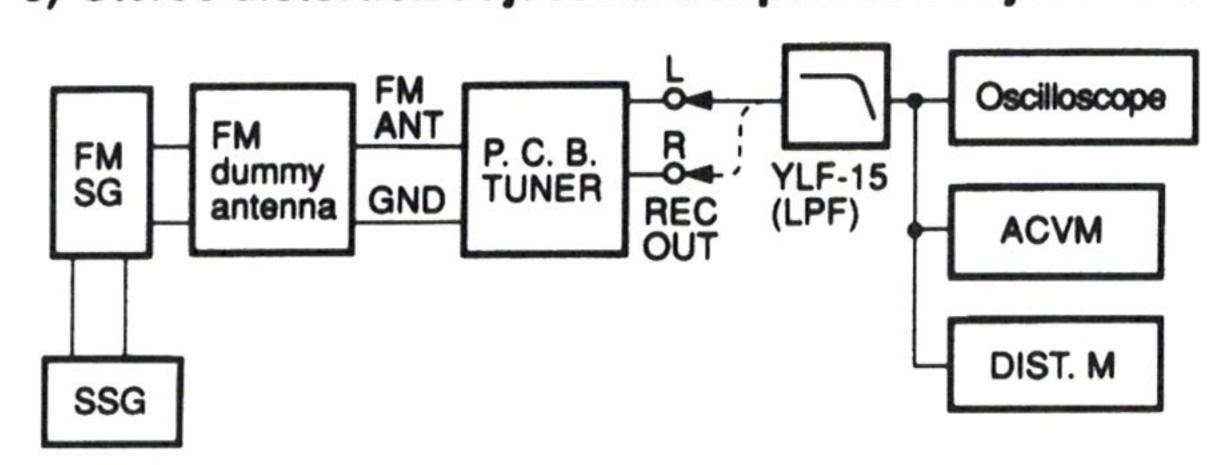
INPUT SELECTOR.....TUNER
TUNING MODEAUTO

Connection diagram (Measuring instruments)

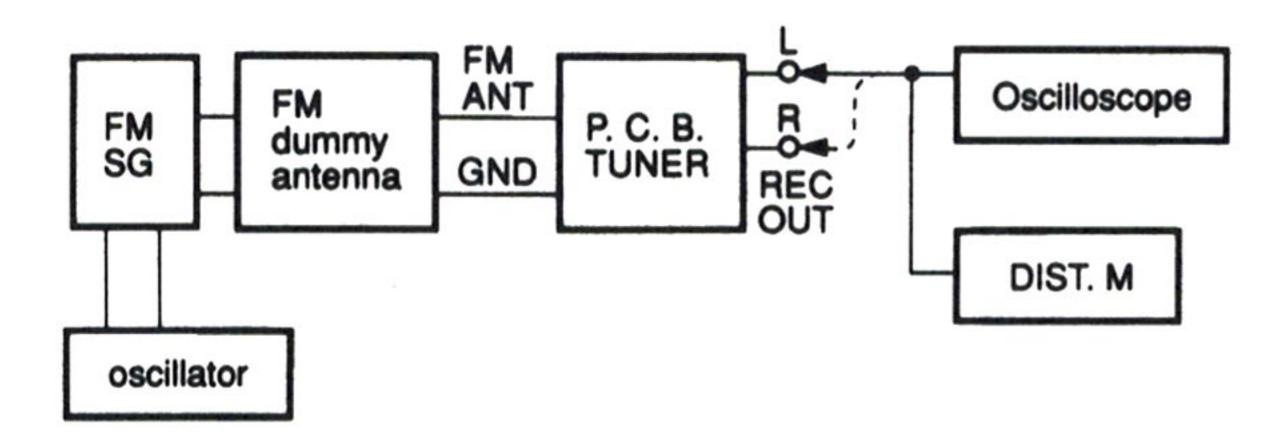
1) Discriminator balance adjustment



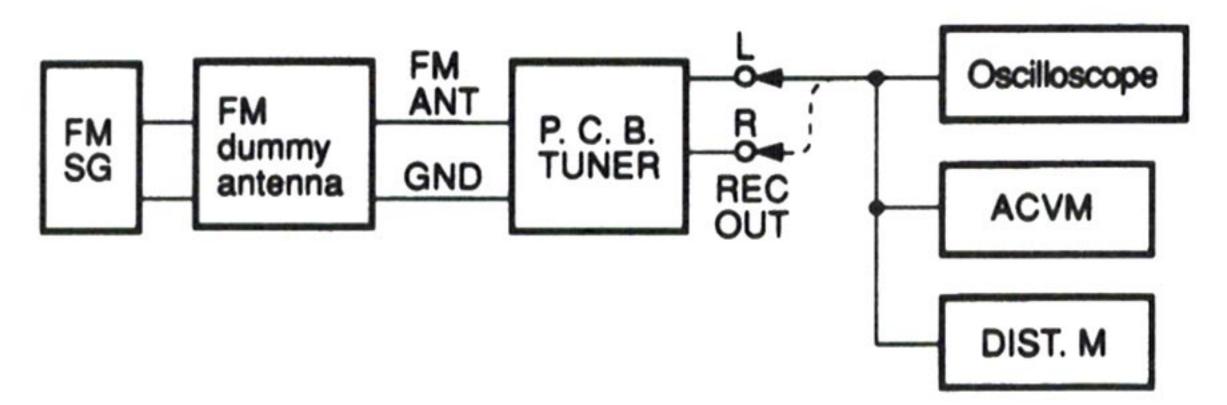
3) Stereo distortion adjustment/separation adjustment



2) Monaural distortion adjustment



4) Sensitivity Verification



See page 6 for TP locations & adjustment points.

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

^{*:} Execution of FACTORY PRESET (Refer to TEST MODE on pages 5.) will facilitate setting reception frequency for adjustment.

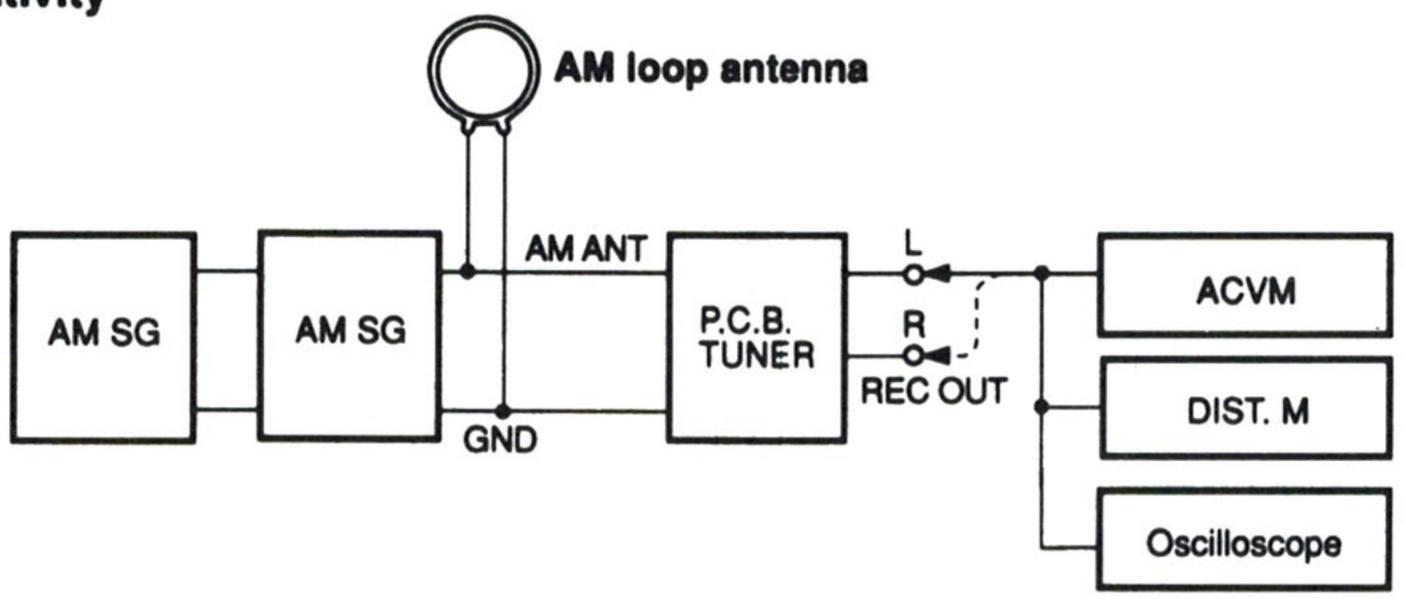
Step	Adjustment item	Signal (ANT IN)	Reception	Adjusted	Test point	Rating
6	Adjustment of	FM ANT (75Ω)	98.1MHz	Front end IFT	Pin 16 of IC1	Adjust so that the DC voltage
	frontend IFT	98.1MHz	* (A-4)			is maximum.
		30dBμ				CAUTION:
		MONO				Over-adjustment of the IFT
		1kHz,				core will reduce the sensitiv-
		100% modulation				ity. Maximum ±90°
7	Verification of monau-	FM ANT (75Ω)	98.1MHz		REC OUT L, R	0.4% or less
	ral distortion	98.1MHz	* (A-4)			
		70dBμ				
		MONO 1kHz,				
		100% modulation				
8	Verification of stereo	FM ANT (75Ω)	98.1MHz		REC OUT L, R	1% or less
	distortion	98.1MHz	* (A-4)			•STEREO indicator should
		70dBμ				light.
		Stereo L or R	* Tuning			•
		1kHz,	mode			
		100% modulation	should be			
	Manification of soci		AUTO.			
9	Verification of sensi-	FM ANT (75Ω)	88.1MHz		ANT (75Ω)	Set the tuning mode to MAN'L
	tivity	88.1MHz	* (A-6)			MONO. (muting off)
		98.1MHz	98.1MHz			S/N should be 30dB at each
		106.1MHz	* (A-4)			frequency of 88.1MHz,
			106.1MHz			98.1MHz, and 106.1MHz.
			* (A-7)			Check to ensure that the volt-
			(~~)			age at the ANT terminal is 3dBµ (14.25dBf) or less.
10	Adjustment of	FM ANT (75Ω)	98.1MHz	VR2	REC OUT L, R	With SSG output at L or R, the
	Separation	98.1MHz	* (A-4)			signal leakage level at the
		70dBμ	, ,			other channel should be mini-
		Stereo L or R				mized.
		1kHz,				36dB or more
		100% modulation				
11	Adjustment of Signal	FM ANT (75Ω)	98.1MHz	VR1		Adjust so that all signal
	meter	98.1MHz	* (A-4)			meters light.
		45dBμ				
		MONO 1kHz				
		30% modulation				
		-10dBμ or less				Check to ensure that signal
- 10	1/2-10					meters turn OFF.
12	Verification of auto	FM ANT (75Ω)	98.1MHz			Automatic reception
	tuning	98.1MHz			20	should be available when
		23dBμ				the tuning key is moved UP
		Stereo L or R				and DOWN.
		1kHz,				The stereo indicator should
		30% modulation				light.
						Audio muting should be ap-
						plied during tuning.

^{*:} Execution of FACTORY PRESET (Refer to TEST MODE on pages 5.) will facilitate setting reception frequency for adjustment.

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

Connection Diagram (Measuring instruments)

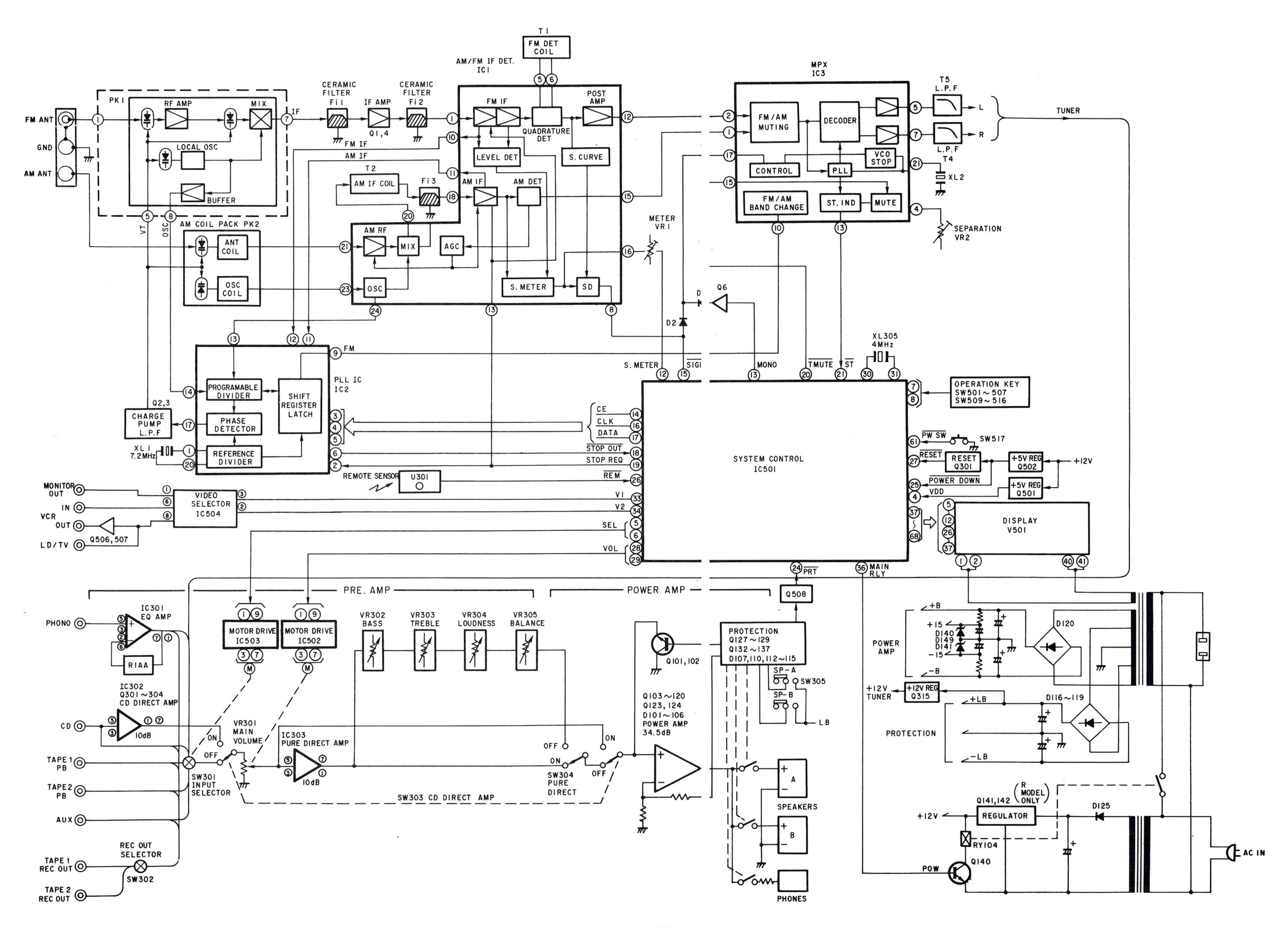
1) Adjustment of sensitivity



See page 6 for TP locations & adjustment points.

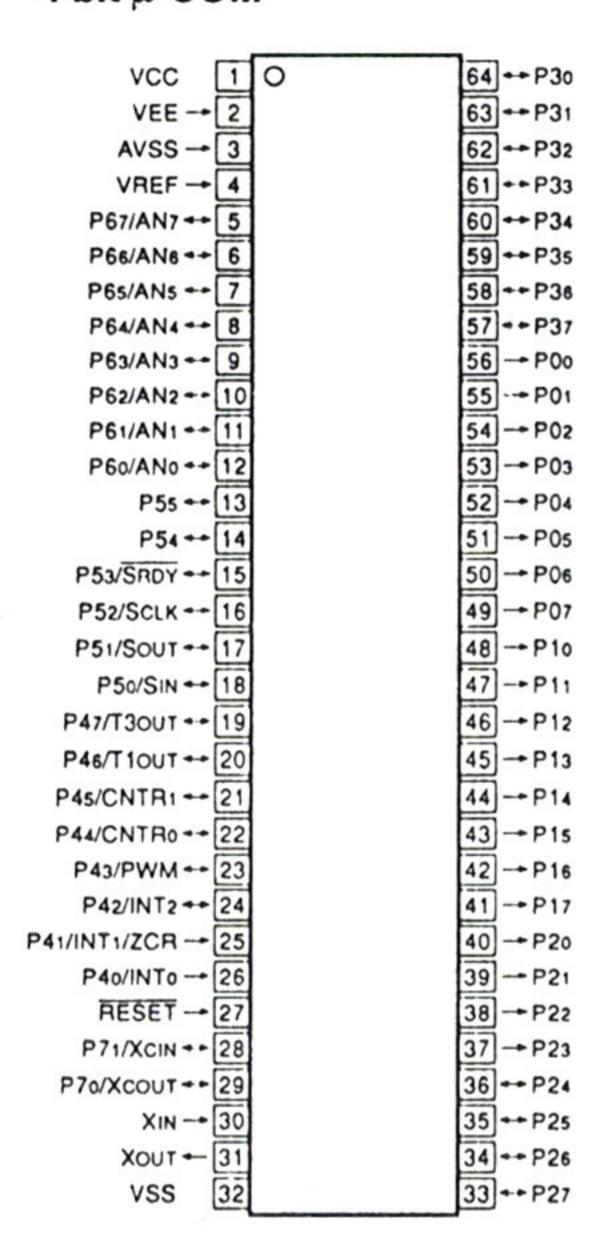
Step	Adjustment item	Signal (ANT IN)	Reception	Adjustment point	Test point	Rating
1	Adjustment of	AM ANT	1440kHz	T2	REC OUT	Audio output should be
	sensitivity	1440kHz	* (B-3)			maximized.
	(1440Hz)	50dBμ				
		400Hz,				
		30% modulation				
2	Verification of	AM ANT	630kHz	T2	REC OUT	Audio output should be
	sensitivity	630kHz	* (B-1)			maximized.
	(630kHz)	50dBμ				Repeat Steps 1 and 2.
		400Hz				
		30% modulation				
3	Verification of	AM ANT	630kHz		AM ANT	Distortion should be 10% or less at
	sensitivity	630kHz	* (B-1)			each frequency.
		1080kHz	1080kHz			Check to ensure that the voltage at
		1440kHz	* (B-2)			the ANT terminal is 54dBµ or less.
		30% modulation	1440kHz			
			* (B-3)			
4	Verification of auto	AM ANT				Auto reception should be avail-
	tuning	60dBμ				able when the tuning key is moved
						UP and DOWN.

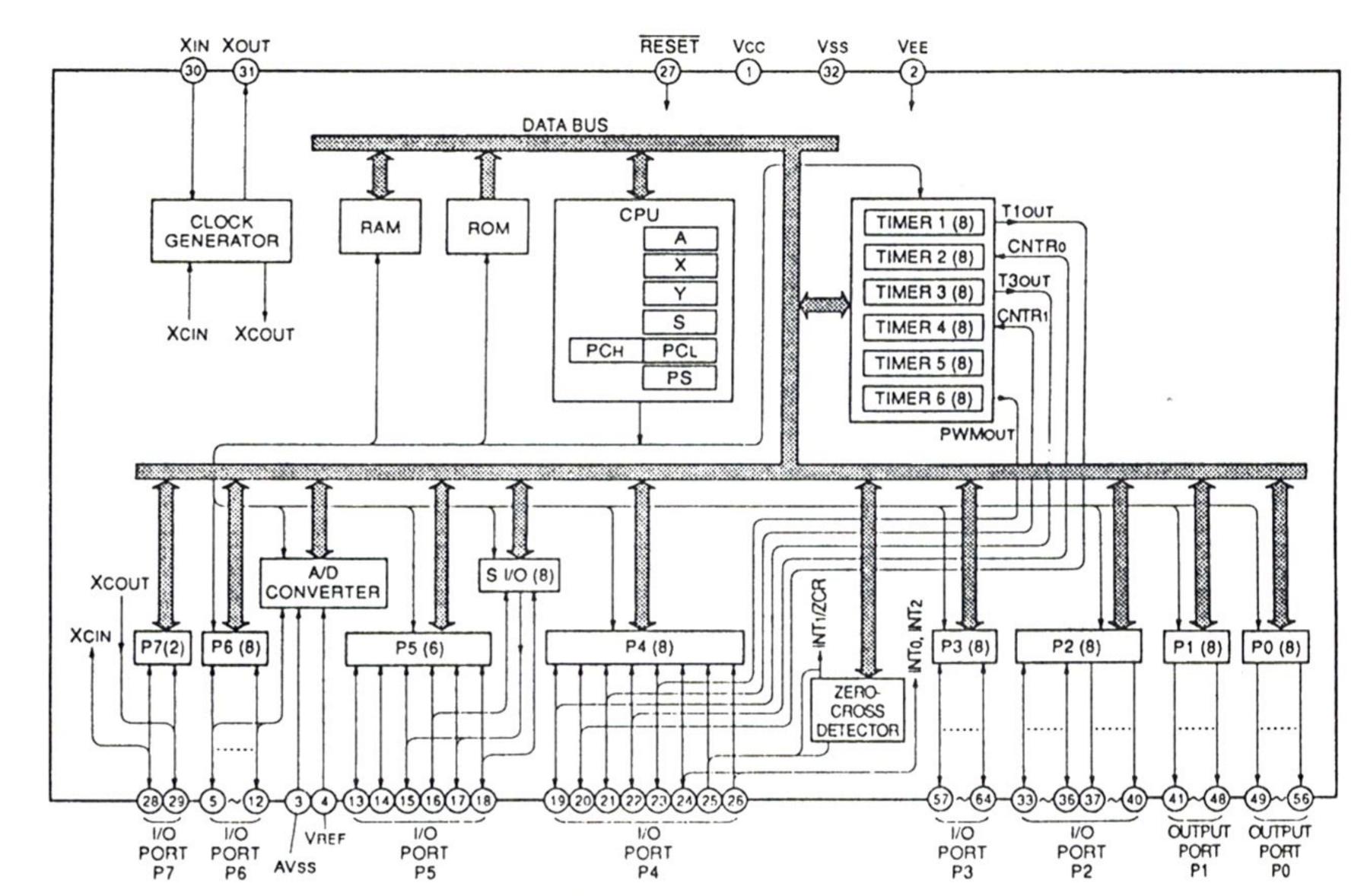
^{*:} Execution of FACTORY PRESET (Refer to TEST MODE on pages 5.) will facilitate setting reception frequency for adjustment.



μ-COM DATA

IC501 : M38122M2-083SP 4 bit μ -COM





10 PIN AD-Value Input Selector

PHONO	0 ~ 0.74 V
CD	1.19 ~ 1.50 V
TUNER	1.95 ~ 2.34 V
TAPE	2.77 ~ 3.14 V
VCR	3.61 ~ 3.98 V
LD	4.45 V ~

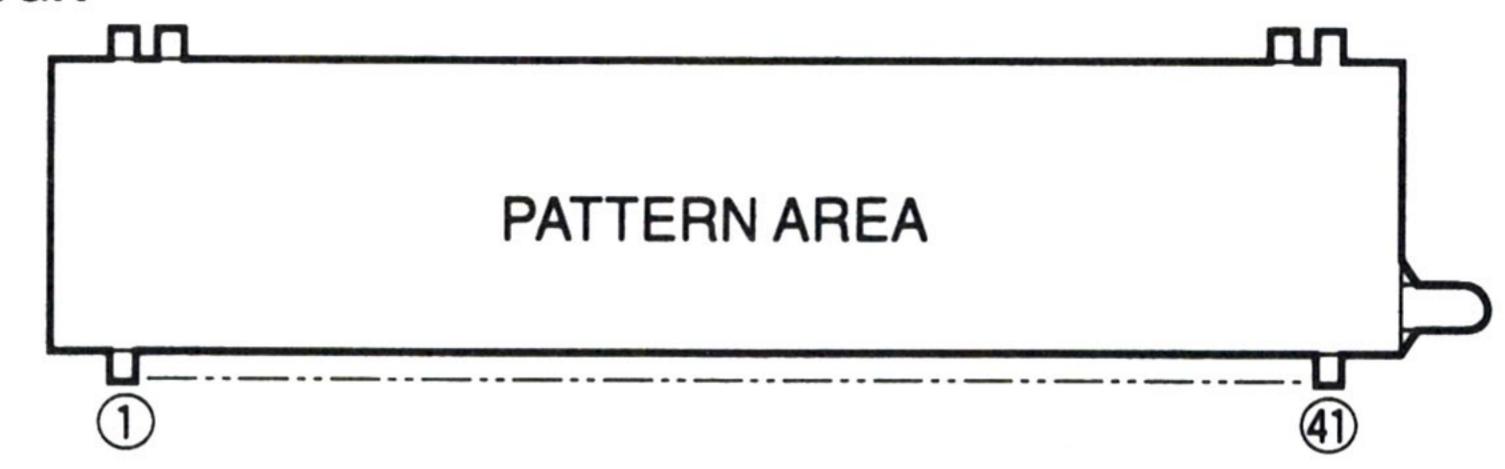
11 PIN AD-Value Market

0 ~ 0.625 V
0.94 ~ 1.50 V
1.95 ~ 2.34 V
1.99 ~ 2.5 V
2.5 V ~

PIN NO.	PIN	VO	FUNCTION	PIN No.	PORT	VO	FUNCTION
1	VCC	_	VDD	33	P27	0	Video 1
2	VEE	_	-VEE	34	P26	0	Video 2
3	AVSS	-	GND	35	P25	_	NC
4	VREF	_	+5V	36	P24	0	Main relay control
5	P67	0	Input selector (Clockwise)	37	P23	0	FL segment 1
6	P66	0	Input selector (Counter-clockwise)	38	P22	0	FL segment 2
7	P65	AD	Key input 1	39	P21	0	FL segment 3
8	P64	AD	Key input 2	40	P20	0	FL segment 4
9	P63	I	Input selector cam	41	P17	. 0	FL segment 5
10	P62	AD	Input selector common	42	P16	01	FL segment 6
11	P61	AD	Market detect	43	P15	0	FL segment 7
12	P60	AD	Meter input	44	P14	0	FL segment 8
13	P55	0	MONO	45	P13	0	FL segment 9
14	P54	0	CE for LM7000	46	P12	0	FL segment 10
15	P53	ı	IF count	47	P11	0	FL segment 11
16	P52	0	CLK for LM7000	48	P10	0	FL segment 12
17	P51	0	DATA for LM7000	49	P07	0	FL digit 1
18	P50	ı	Stop signal	50	P06	0	FL digit 2
19	P47	0	Stop REQ	51	P05	0	FL digit 3
20	P46	0	Tuner mute .	52	P04	0	FL digit 4
21	P45	1	Stereo	53	P03	0	FL digit 5
22	P44	-	NC	54	P02	0	FL digit 6
23	P43	0	POWER LED out	55	P01	0	FL digit 7
24	P42	1	Protection	56	P00	0	FL digit 8
25	P41	1	Power down detect	57	P37	0	Main mute
26	P40	ı	Remote sensor	58	P36	_	NC
27	RES	_	Reset	59	. P35	_	NC
28	P43	0	POWER LED out	60	P34	_	NC
29	P43	0	POWER LED out	61	P33	1	Power switch on
30	XIN		4MHz	62	P32	_	NC
31	XOUT		4MHz	63	P31	_	NC
32	VSS	_	GND	64	P30	1	CD direct detect

DISPLAY DATA (VR029500)

● V301:8-MT-79GK



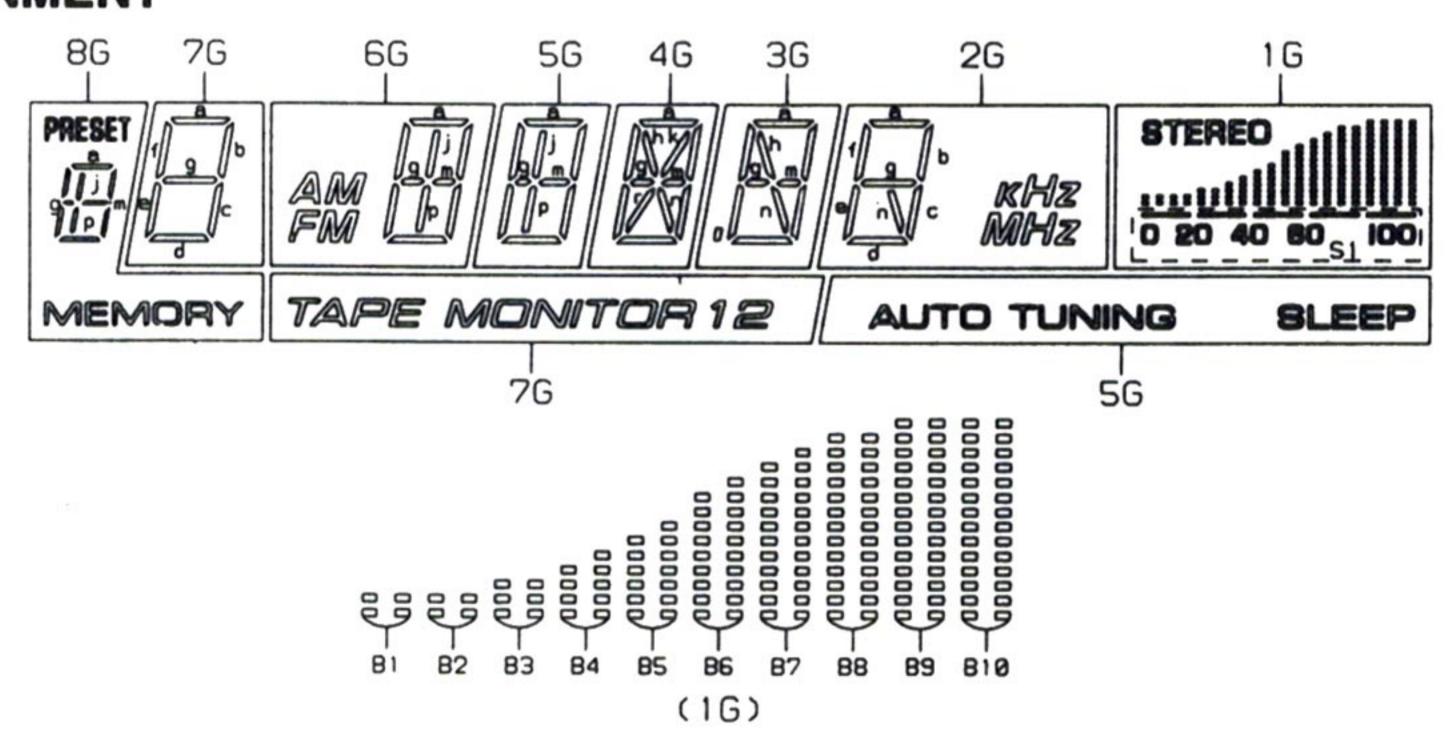
PIN CONNECTION

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	P1	P2	РЗ	P4	P5	P6	P7	P8	P9	P10	P11	P12	NX	NX	NX	NX	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	NX	NC	NC	NC	NC	1G	2G	3G	4G	5G	6G	7G	8G	NP	NP	F2	F2	

NOTE 1) F1, F2.....Filament
2) NPNo pin
3) NCNo connection

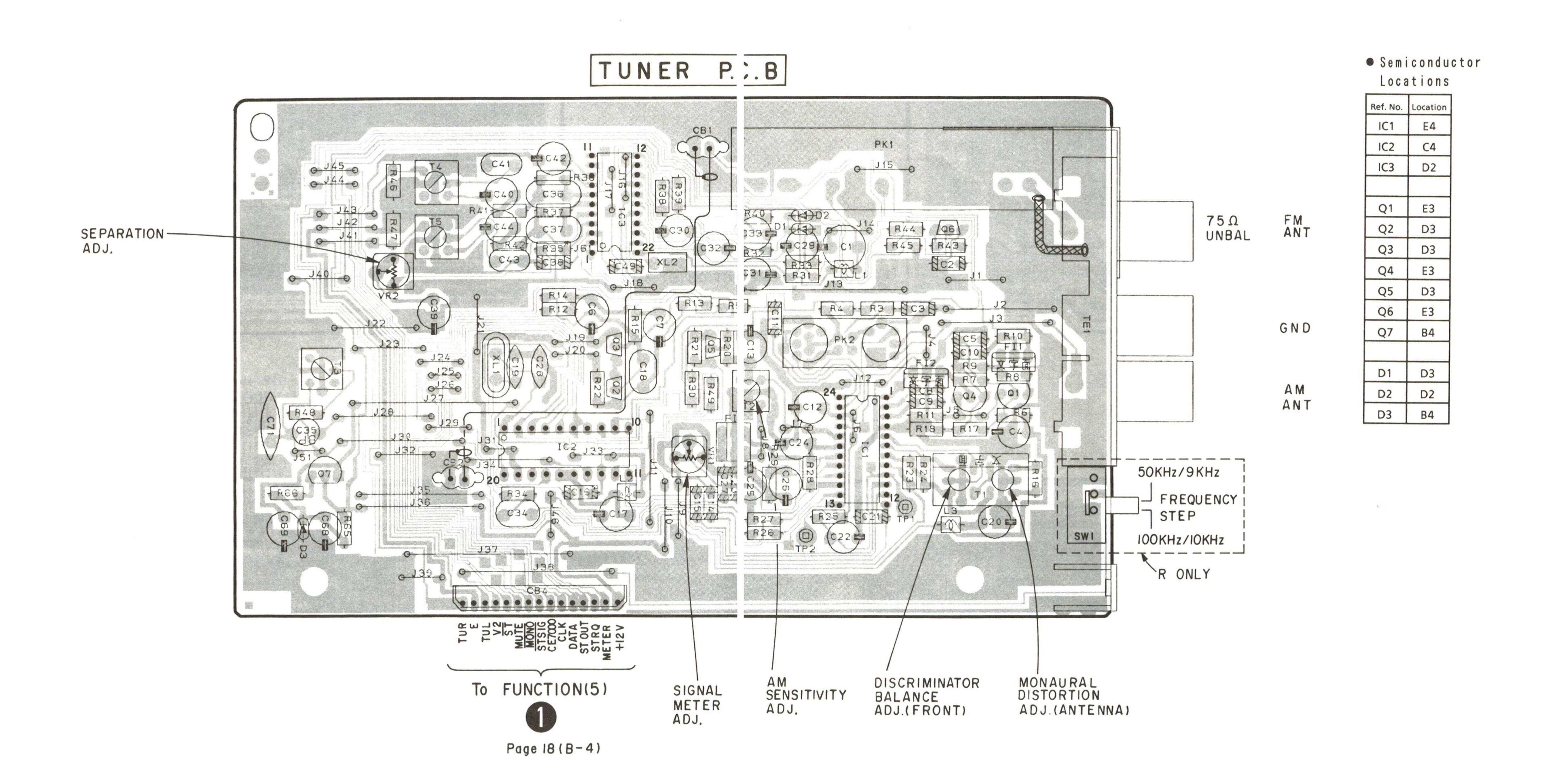
NX No extend pin DL Datum Line 1G~11G .. Grid

GRID ASSIGNMENT

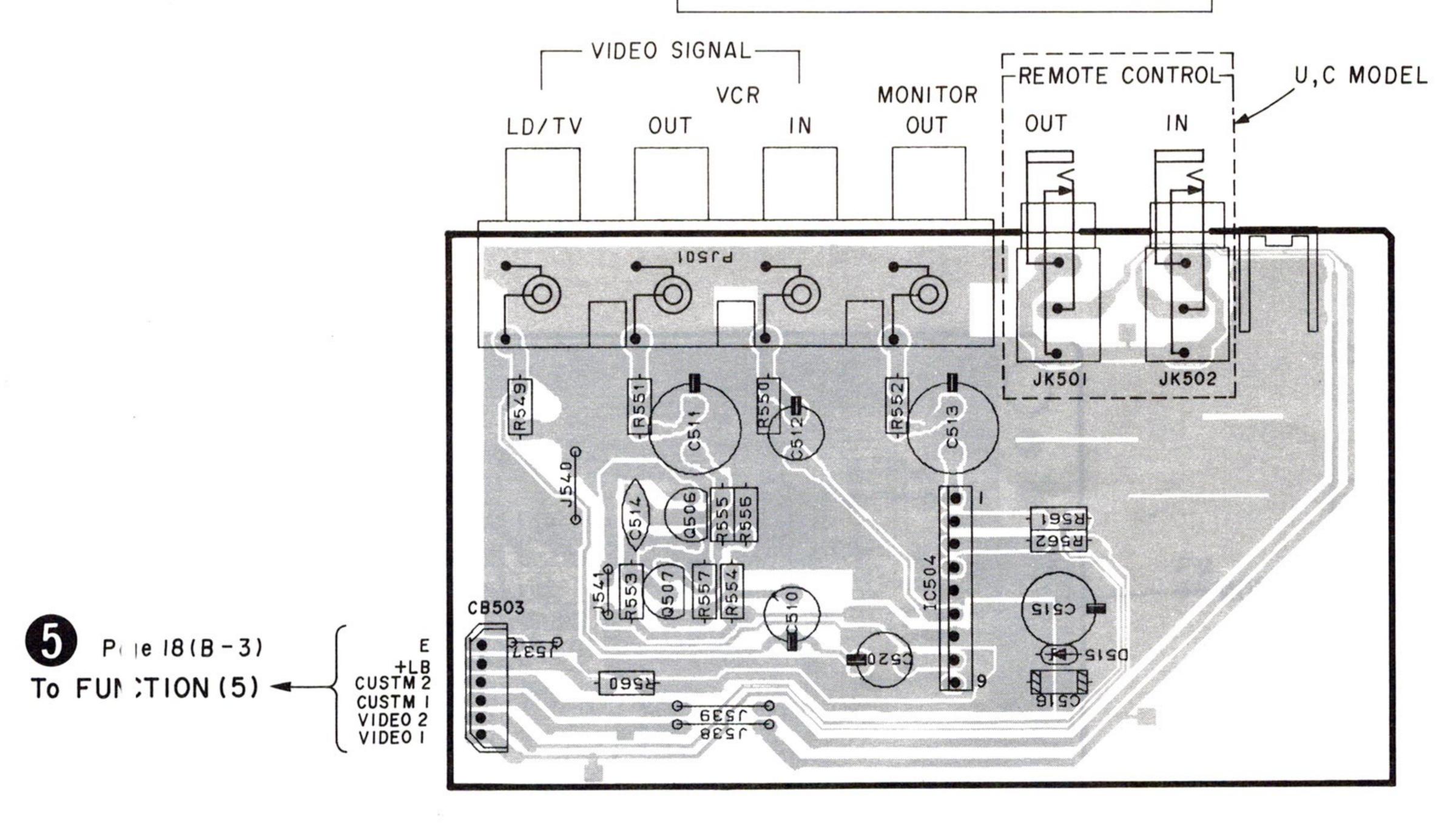


ANODE CONNECTION

					<u> </u>			
	8G	7G	6G	5G	4G	3G	2G	1G
P1	а	а	а	а	а	а	а	STEREO
P2	b	b	b	b	b	b	b	S1
Р3	С	С	С	С	С	С	С	B1 ·
P4	d	d	d	d	d	d	d	B2
P5	е	е	е	е	е	е	е	ВЗ
P6	f	f	f	f	f	f	f	B4
P7	g	g	g	g	g	g	g	B5
P8	j		j	j	h	h	_	В6
P9	PRESET	TAPE MONITOR	AM	AUTO TUNING	k	0	kHz	B7
P10	m	1	М	m	m	m		B8
P11	р	2	Р	р	n	n	n	В9
P12	MEMORY	_	FM	SLEEP	r	_	MHz	B10

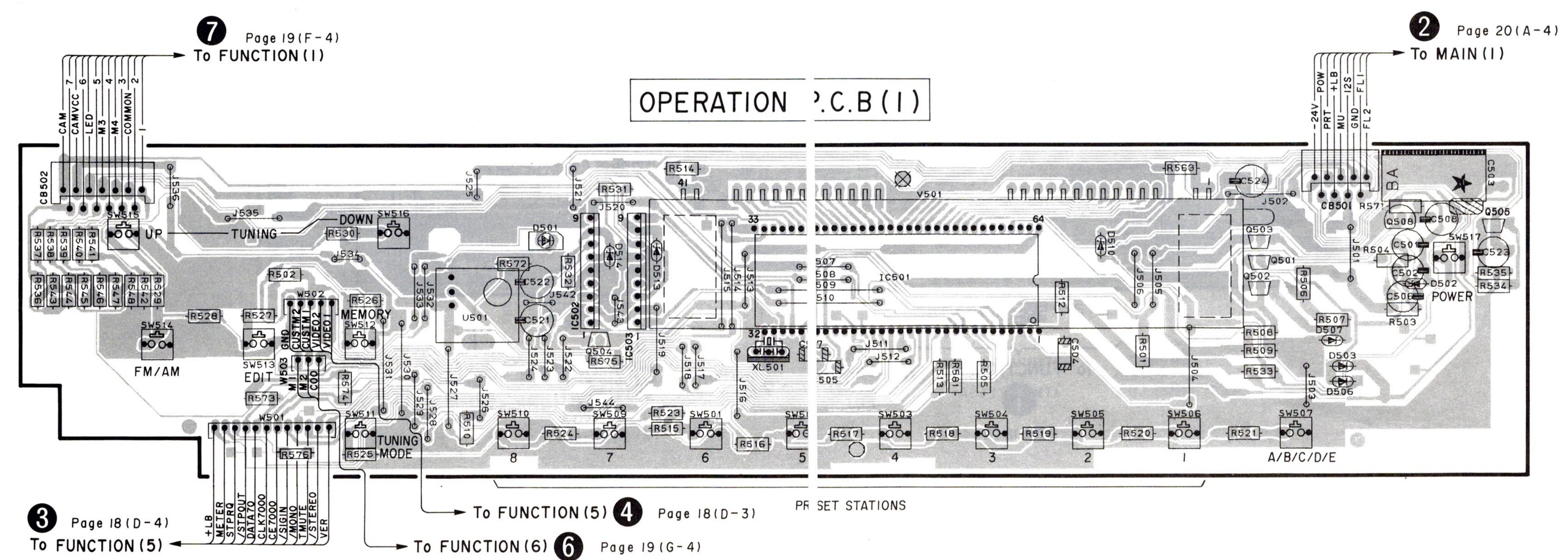



OPERATION P.C.B (2)

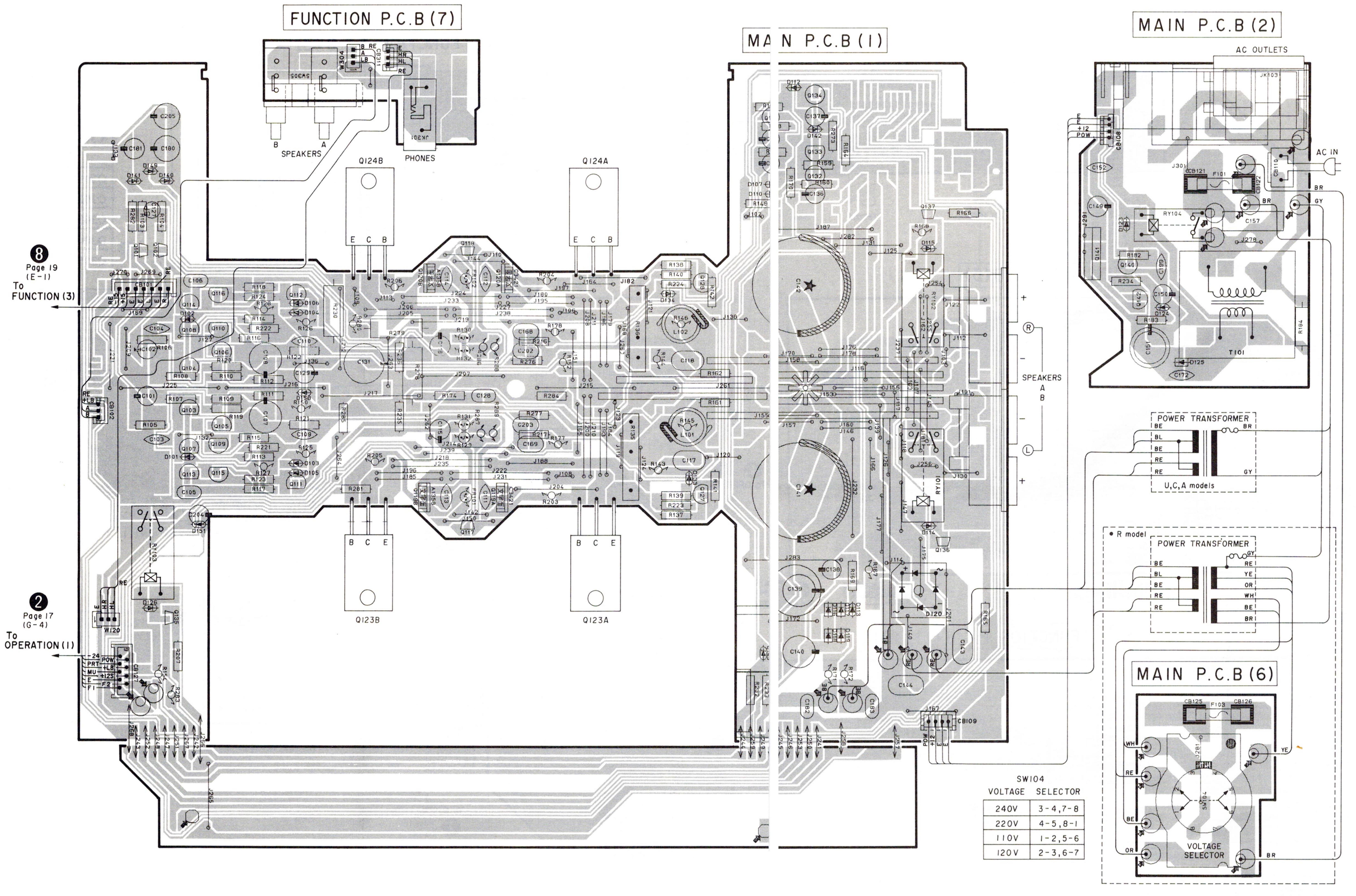


Semiconductor Locations

IC501	E4
IC502	C4
IC503	D4
IC504	F3
Q501	F4
Q502	F4
Q503	F4
Q504	C5
Q505	G4
Q506	F2
Q507	F3
Q508	G4
D501	C4
D502	G4
D503	G5
D506	G5
D507	G5
D510	F4
D513	D4
D514	C4








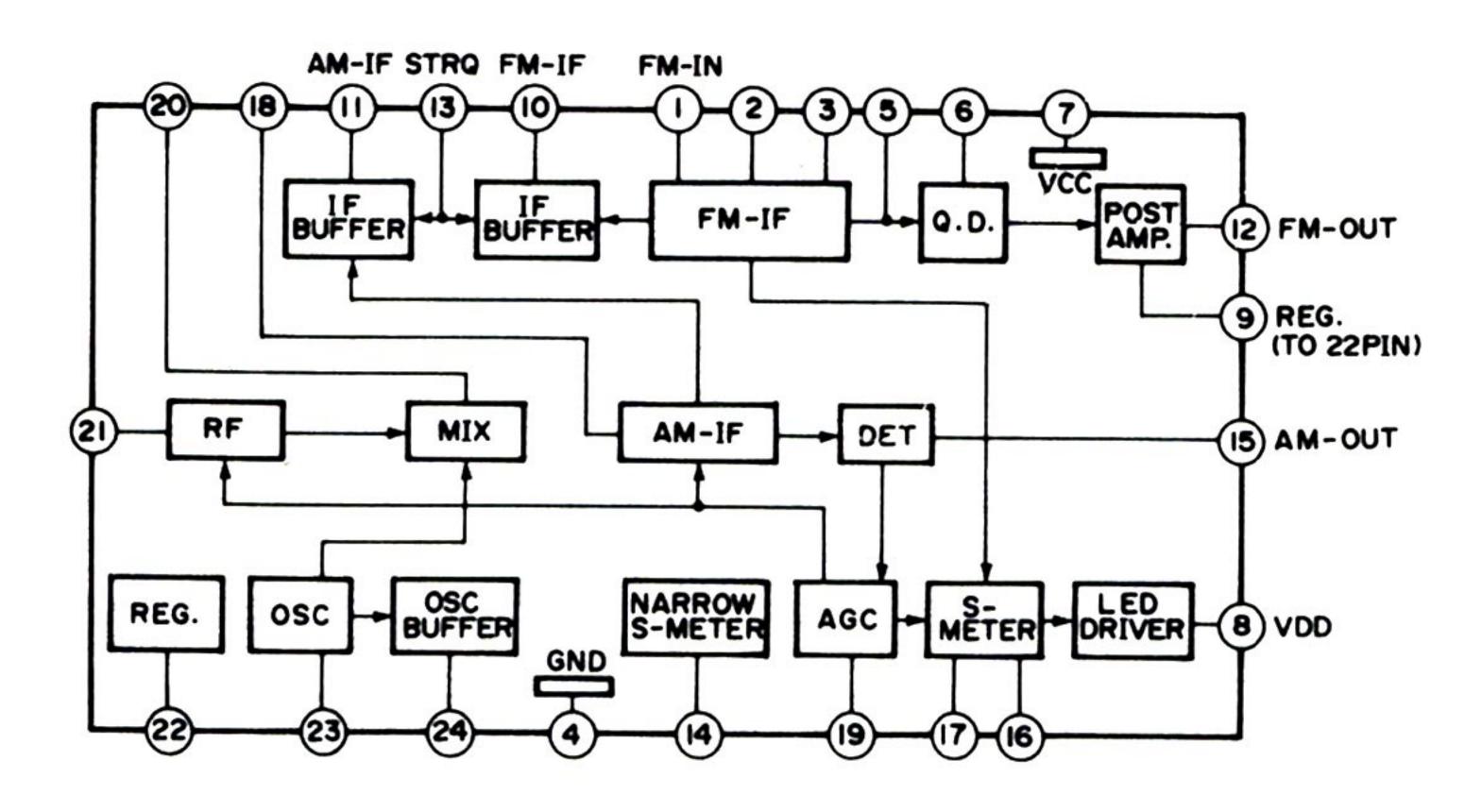
Semiconductor Locations

Semi	condu	c t	or	Loc	ati	10
Ref. No.	Location		Ref.	No.	Locati	on
Q101	A2		D1	01	А3	
Q102	A2	D102		02	A2	
Q103	Α3		D1	03	В3	
Q104	Α3		D1	04	B2	
Q105	В3		D1	05	В3	
Q106	В3		D1	06	В2	
Q107	Α3		D1	07	D2	
Q108	Α3		D1	10	D2	
Q109	В3		D1	12	D1	
Q110	В3		D1	13	E4	
Q111	В3		D1	14	E4	
Q112	В2		D1	15	E2	
Q113	Α3		D1	16	E4	
Q114	A2		D1	17	E4	
Q115	В3		D1	18	E4	
Q116	В2		D1	19	E4	
Q117	C3		D1:	20	E4	
Q118	C2		D1:	23	F2	
Q119A	C3		D1:	24	F2	
Q119B	C3		D1:	25	F3	
Q120A	C2		D1:	26	A4	
Q120B	C2		D1:	33	D3	
Q123A	C4		D1:	34	D2	
Q123B	B4		D14	40	A2	
Q124A	C2		D14	41-	A2	
Q124B	В2		D14	42	E2	
Q127	D3		D14	43	D4	
Q128	D2		D14	49	A2	
Q129	D2		D1:	51	Α3	
Q132	E2		D1:	58	В3	
Q133	E2					
Q134	E1					
Q135	A4					
Q136	E4					
Q137	E2					
Q140	F2					
Q141	F2					
Q142	F2					

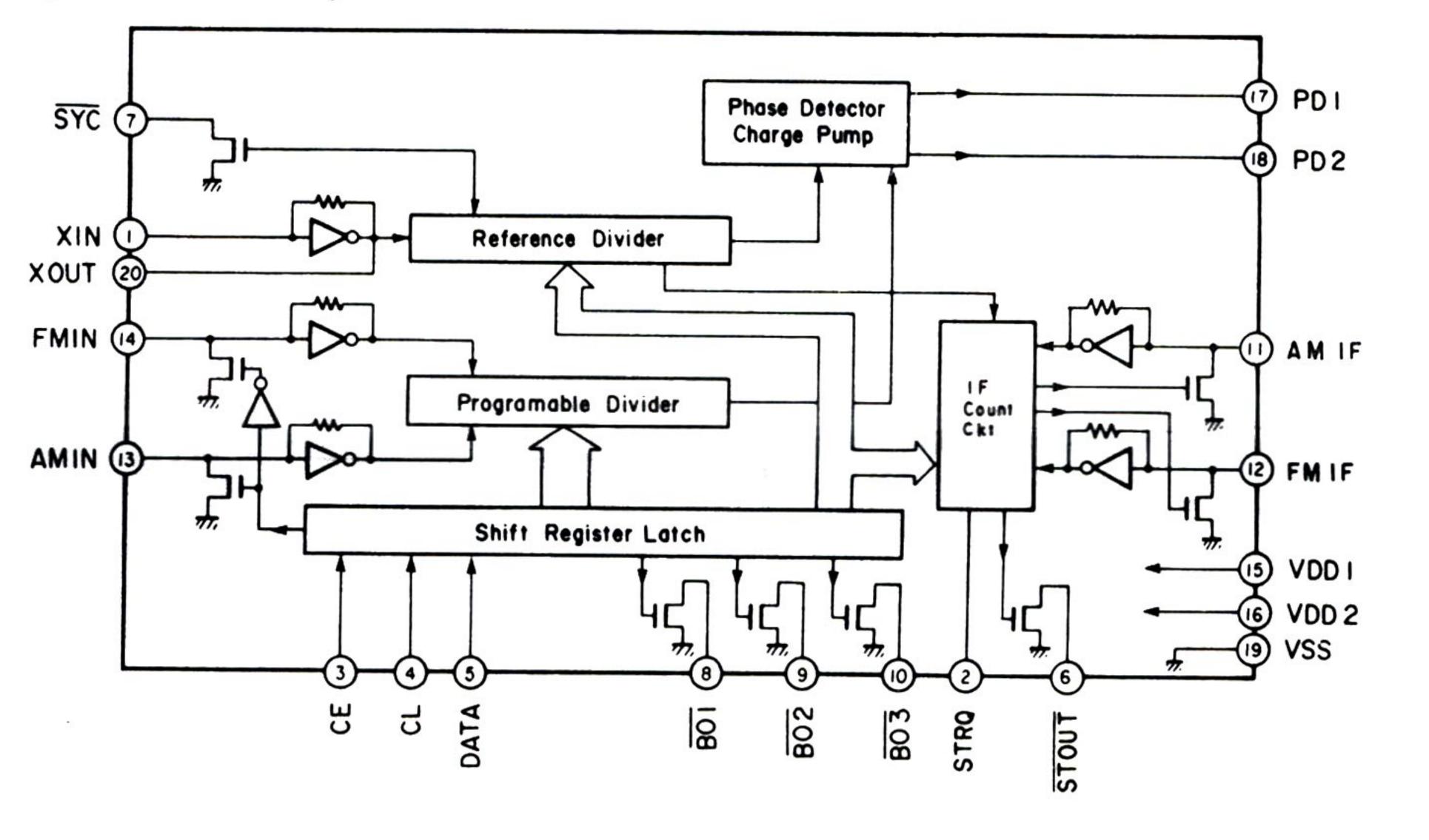


IC BLOCK

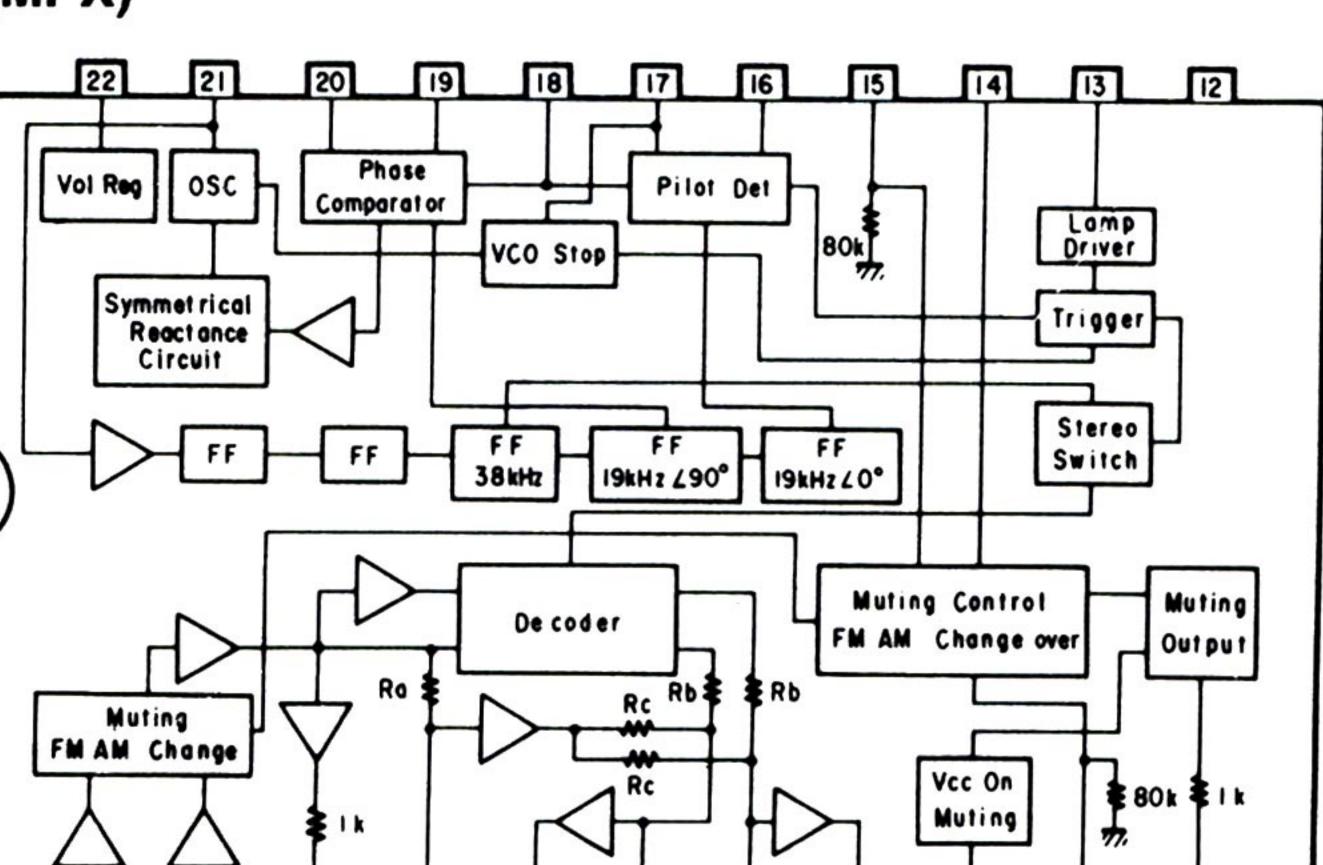
IC1: LA1266 (AM/FM IF)



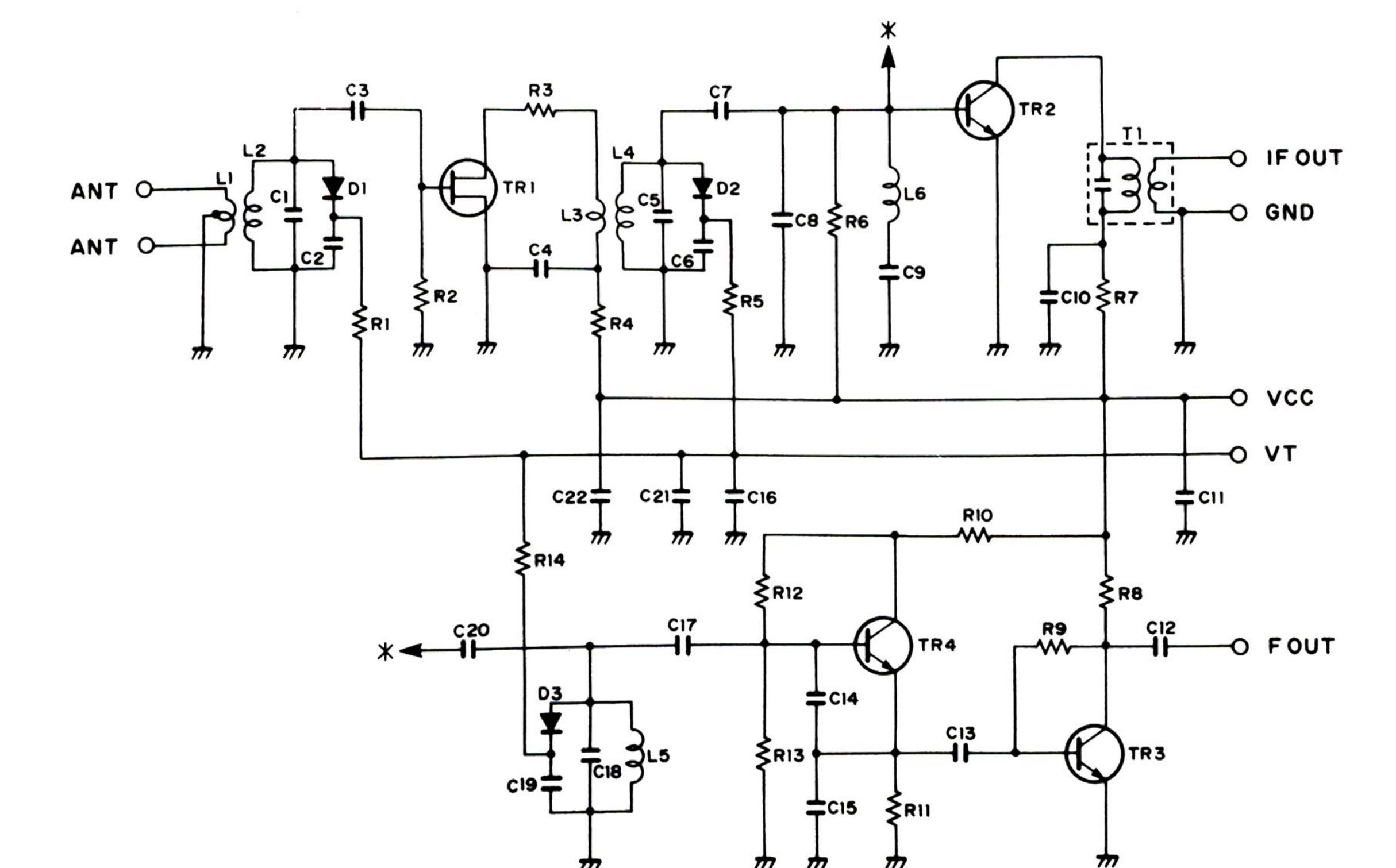
IC2: LM7000N (PLL Controller)



IC3: LA3401



PK1: ENV-17298GI (VR242200)




All voltages are measured with a10MΩ/V DC electric volt meter.

PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICS.

Components having special characteristics are marked
 \text{\$\$\text{\$\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\$\text{\$\$\text{\$\$\text{\$\$\text{\$\text{\$\text{\$\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\$\text{\$\$\text{\$\$\text{\$\$\text{\$\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text

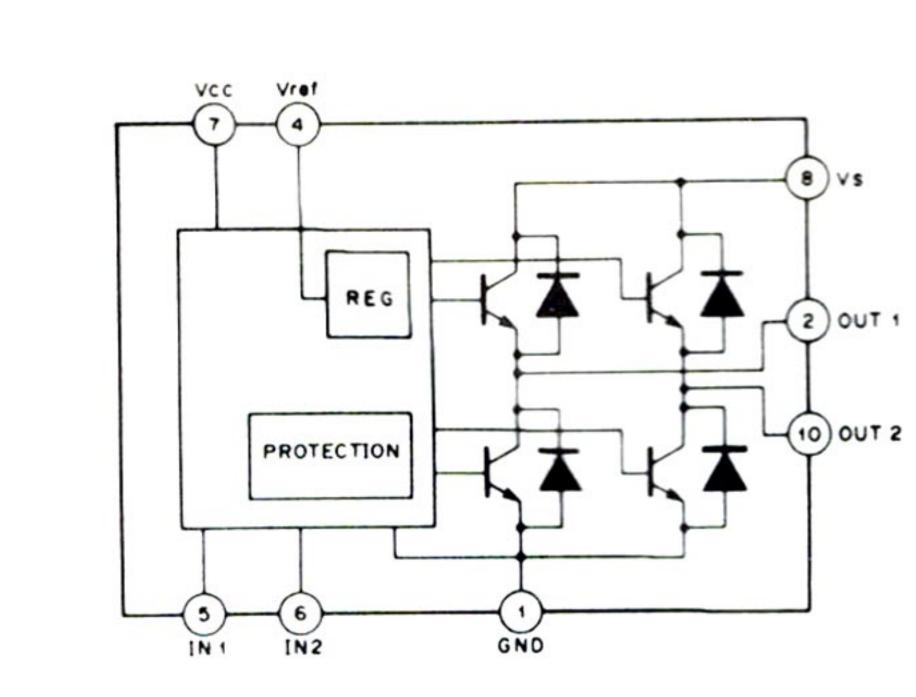
replaced with parts having specifications equal to those originally installed.

• Schematic diagram is subject to change without notice.

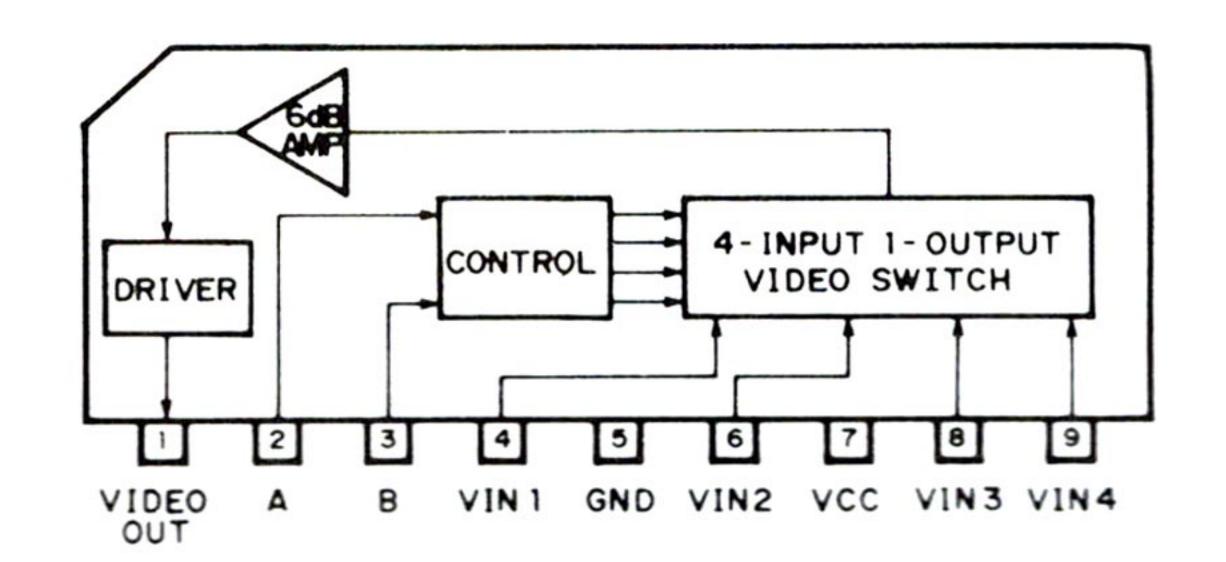


IC BLOCK

IC502, 503: TA7291S (Motor Driver)

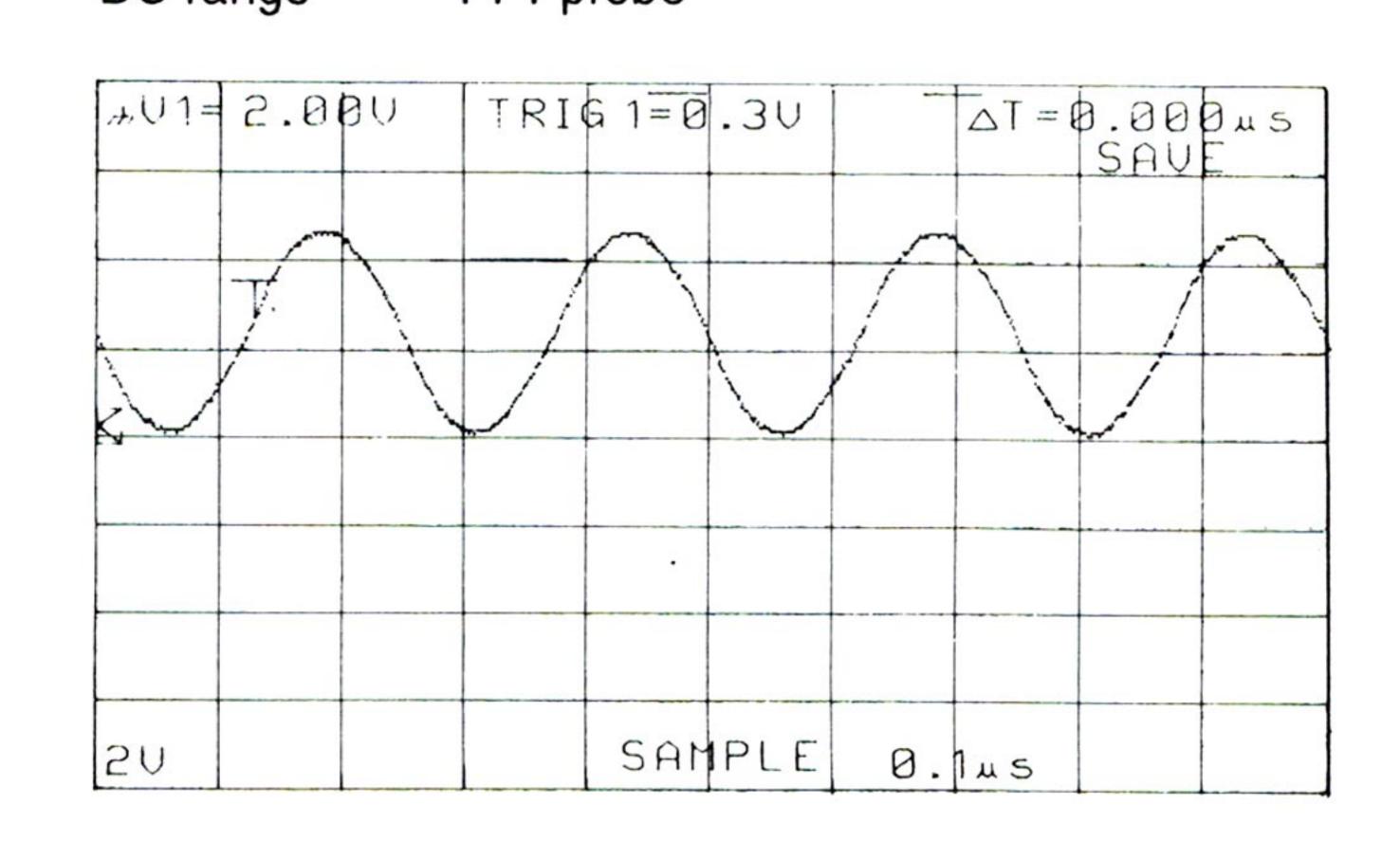


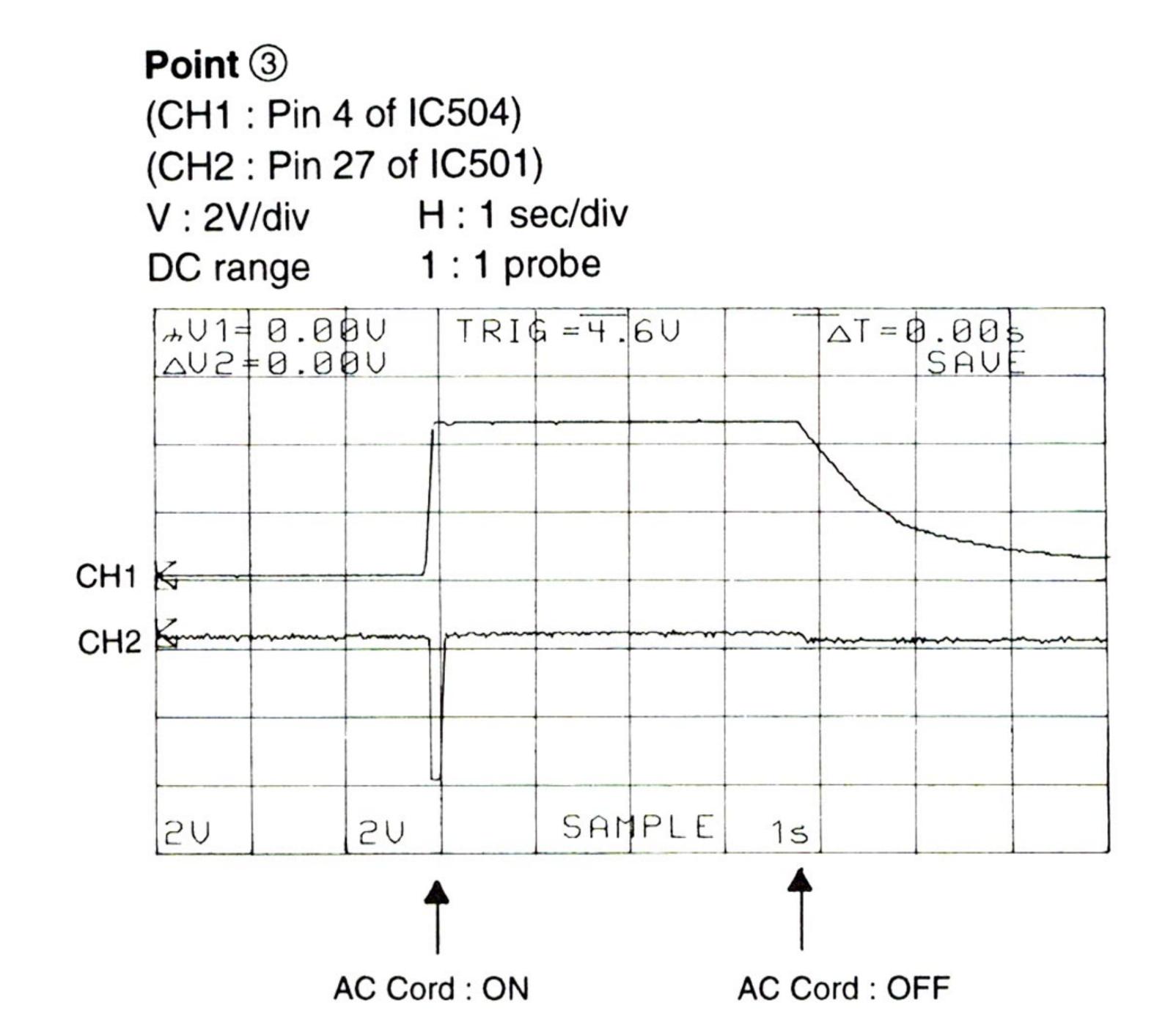
IC504: LA7956 Video Amp Selector



S2 (2 pin)	S3 (3 pin)	VIN1 (4 pin)	VIN2 (6 pin)	VIN3 (8 pin)	VIN4 (9 pin)
Н	Н	ON	OFF	OFF	OFF
L	Н	OFF	ON	OFF	OFF
Н	L	OFF	OFF	ON	OFF
L	L	OFF	OFF	OFF	ON

Point ② (Pin 31 of IC501) V : 2V/div H : 0.1μsec/div





M38122M2-083SP


LA7956

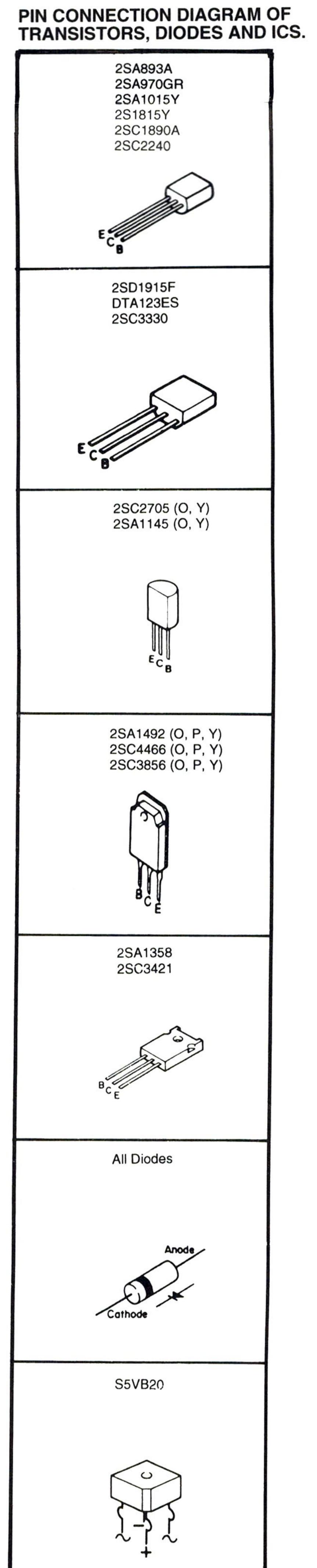
- ullet All voltages are measured with a 10M Ω /V DC electric volt meter.
- Components having special characteristics are marked 🛆 and must be replaced with parts having specifications equal to those originally installed.
- Schematic diagram is subject to change without notice.

To Page 22 (G-4

To Page 23 (C-7)

[•] All voltages are measured with a 10M Ω /V 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.





- All voltages are measured with a 10M Ω /V 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.

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:

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

VR.SW

VR.SLIDE

VR.TRIM

: POTENTIOMETER WITH ROTARY SW

: SLIDE POTENTIOMETER

: TRIMMER POTENTIOMETER

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

: LIGHT DETECTING MODULE

JUMPER.CN : JUMPER CONNECTOR

JUMPER.TST : JUMPER, TEST POINT

L.DTCT

TUNER P.C.B/MAIN P.C.B.

	Schm Ref.	PART NO.	Descr	i p t i o	n
* *		VR341800 VR341900 VR342000	P. C. B.	TUNER (UC) TUNER (R) TUNER (AB)	
	CB1	VR428700	CN. BS. PIN	2P	
	CB2	VR428700	CN. BS. PIN	2P	
	CB4	VQ961800	CN. BS. PIN	15P	
	C1	UJ638330	C. EL	330uF	16V
	C2	VG280100	C. CE. TUBLR	0.022uF	25V
	C3	VJ599000	C. CE. TUBLR	0.047uF	16V
	C4	VJ836900	C. EL	10uF	16V
	C5	VF467300	C. CE. TUBLR	0.01uF	16V
	C6	VF964800	C. EL	100uF	16V
	C7	VJ839100	C. EL	1uF	50V
	C8	VF467300	C. CE. TUBLR	0.01uF	16V
	C9	VF467300	C. CE. TUBLR	0.01uF	16V
	C10		C. CE. TUBLR		16V
	C11	VF467000	C. CE. TUBLR	1000pF	50V
	C12	VJ836900	C. EL	10uF	16V
	C13	VJ836900	C. EL	10uF	16V
	C14		C. CE. TUBLR		50V
	C15	VF467000	C. CE. TUBLR	1000pF	50V
	C16	VF466700	C. CE. TUBLR	47pF	50V
	C17	VF964800	C. EL	100uF	16V
	C18	UA655100	C. MYLAR	0. 1uF	50V
	C19	VA761200	C. CE	33pF	50V
	C20	VJ836900	C. EL	10uF	16V
	C21	VF466800	C. CE. TUBLR	100pF	50V
	C22	VJ839200	C. EL	2. 2uF	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	VJ836900	C. EL	10uF	16V
	C32	VJ839000	C. EL	0.47uF	50V
	C33	VJ839100		1uF	50V
	C34	UA654470	C. MYLAR	0.047uF	50V
	C35	VD916400	C. EL	2. 2uF	50V
	C36	UA652470	C. MYLAR	470pF	50V(A)
	C36	UA652680	C. MYLAR	680pF	50V (UCR)
	C37	UA652470	C. MYLAR	470pF	50V(A)
	C37	UA652680	C. MYLAR	680pF	50V (UCR)
	C38	VF466900	C. CE. TUBLR		50V
	C39	VJ836900	C. EL	10uF	16V
	C40	UM216330	C. EL	3. 3uF	50V
	C41	UA653390	C. MYLAR	3900pF	50V
	C42	VJ836900	C. EL	10uF	16V
	C43	UA653390	C. MYLAR	3900pF	50V
	C44	UM216330	The same state of the same sta	3. 3uF	50V
	C49	VJ599000	C. CE. TUBLR	0.047uF	16V

	Schm Ref.	PART NO.	Descr	i p t i o n
	C68	VJ836900	C FI	10uF 16V
- 1	C69	VJ836900		10uF 16V
	D1	VD631600		1SS133,176,HSS104
		VD631600		1SS133,176,HSS104
	D2	SALES THE SECTION OF SECTION S	NO. C. LEWIS CO., ASS.	
- 1	D3	NO DISCUSSION SERVED TO SE	DIODE, ZENR	100 TO 10
	4	GG000560	and the second s	SFE10. 7MS3GHY-A
- 1		GG000560	La Perrie Con Principal Con Control Contro	SFE10.7MS3GHY-A
- 1	Fi3	VC219000		SFZ450JL3
- 1	IC1	XB760A00		LA1266
		XB818A00		LM7000N
	IC3	iG158100	1	LA3401
- 1	L1	Vi546100		220uH
- 1	L2	Vi546100		220uH
	L3	Vi546100		220uH
- 1	PK1	12	TUNER. PK	EXV-17296G1 (UCRA)
	PK2	Vi027300	56000	
	Q1	iC053540		2SC535 A,B,C
	Q2	VC218900	TR	2SC3330 R,S,T
	Q3	VC218900	TR	2SC3330 R,S,T
	Q4	iC053540	TR	2SC535 A,B,C
	Q5	VC218700	TR	2SA1317 R,S,T
	Q6	VC218900	TR	2SC3330 R,S,T
	Q7	iC1815C0	TR	2SC1815 Y
	SW1	VF541200	SW. SLIDE	SSSF11(R)
	T1	VC218600	COIL. DT. FM	10.7MHz
- 1	T2		COIL. IF. AM	
- 1	T4	VQ138200		19KHz
- 1	T5	VQ138200	Tests control at the sea	19KHz
- 1	2.2002012		TERM. ANT	YKD31-0215
- 1	TP1		PIN. TEST	
- 1	TP2		PIN. TEST	
- 1	VR1	VJ694000	Commercial Marine	Β47Κ Ω
- 1	VR2	VJ694000		Β47ΚΩ
- 1	XL1		RSNR. CRYS	7. 2MHz
	65665 655		Annual artistance of the second	18. 95MHz
	XL2	GG000750	Desired to the Property of the	
			SCR. TERM	8. 3x13
		VR282500	PLAIE	ANT.
*		VS981400	P. C. B.	MAIN (UC)
*		VS981500	P.C.B.	MAIN(R)
*		VS981600		MAIN(A)
	CB101		CN. BS. PIN	7P
- 1			CN. BS. PIN	3P
		1	CN. BS. PIN	4P
	Charles and Salary	VS839500		4P
	Section of the same of	AN ARTHUR MODERNATION SOLUTION	CN. BS. PIN	2P
		1	HOLDER. FUS	
	Secretary and the second	100,000	HOLDER, FUS	Law-years-we-
	DOMESTIC STREET, STREE	David Docomercian Francisco	DISCOUL DANGERMAN CONSTRUCTOR C	EYF-52BC(R)
		1		EYF-52BC(R)
	1	1	CN. BS. PIN	9P
	ODIZI	VN999000	ON. DS. PIN	31

MAIN P.C.B.

	Cohm					Г	C 1 -			
	Schm	DADT MO		: 5 + : 6		1	Schm	DADT NO	D = = = =	: n + i o n
	Ref.	PARI NO.	Descr	1 p t 1 o	n		Ref.	PART NO.	Descr	i p t i o n
	2101		0 57	4 6 5	0011					100100 100 UCC104
		Vi377400	Province in control	4. 7uF	63V			VD631600 I		1SS133,176,HSS104
	1980 CO. 1987 CO.	Vi377400	100000000000000000000000000000000000000	4.7uF	63V			VD631600 I	68 C C C C C C C C C C C C C C C C C C C	1SS133,176,HSS104
	C103	FG211470	C. CE	47pF	50V		D105	VD631600 I		1SS133,176,HSS104
	C104	FG211470	C. CE	47pF	50V		D106	VD631600 1		1SS133,176,HSS104
	C105	Vi715900	C. MYLAR	2200pF	50V		D107	VD631600 1	DIODE	1SS133,176,HSS104
	C106	Vi715900	C. MYLAR	2200pF	50V		D110	VD631600	DIODE	1SS133,176,HSS104
Δ	C107	VF760000	C. EL	100uF	10V		D112	VD631600	DIODE	1SS133,176,HSS104
Δ	C108	VF760000	C. EL	100uF	10V		D113	VN008700	DIODE	1SS270A
	C109	VQ463300	C. PP	22pF	630V		D114	VD631600	DIODE	1SS133,176,HSS104
	C110	VQ463300	C. PP	22pF	630V			VD631600	DIODE	1SS133,176,HSS104
	C111	VR325000	1	100pF	100V	\triangle	-	VH770800		1SR139-100
	C112	VR325000	Control of the second of the second	100pF	100V	Δ		VH770800		1SR139-100
	C113	VR325000	Annual Contraction of the Contraction	100pF	100V	<u> </u>	T-17.11	VH770800		1SR139-100
	C114	VR325000		100pF	100V	A		VH770800		1SR139-100
Δ	C115	VG291200	102	47uF	50V	△				S4VB20 2.6A 200V
Δ.	27.50 (26 (24 (25)	VG291200	2 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	47uF	50V	25		VD631600		1SS133,176,HSS104
	120 ABROOM 15	anners sommersome	C. MYLAR. ML		50V			CONCERNO CONTRACTOR NO DE LO COMPANSO DE LO COMPANS	DIODE. ZENR	
		to a transfer of the contract	C. MYLAR. ML		50V			VH770800	10 min 10	1SR139-100
	C125	VG290600	5 000 000000 B	2. 2uF	50V		CONTRACTOR OF THE PROPERTY OF	VD631600		1SS133,176,HSS104
	100000000000000000000000000000000000000	UJ895220		0. 22uF	100V				V. 17. V. (19. 19. 19. 19. 19. 19. 19. 19. 19. 19.	1SS270A
	C127	VN283200	2000 2000	1uF	50V		200 (200 (200 (200 (200 (200 (200 (200	VN008700		1SS270A
	335035555							VN008700	2.022	
	presumation and an	UA652470	-	470pF	50V		NUMBER HITTORY	DOSCORDESCOS AND DOSCORDO IN THE RESIDENCE OF THE RESIDEN		MTZJ8. 2A 8. 2V
		VG288900		100uF	25V				DIODE, ZENR	PATE AS DE SE PER HE
	C131	VK699400		330uF	63V			VD631600		1SS133,176,HSS104
	C136	VF760000	1.00 7-403000	100uF	10V		12750 - 2776 2127 (1950)	CONTRACTOR STATE OF THE STATE O	Part I Respective Chemical Control	MTZJ4. 3A 4. 3V
	C137	VF760000		100uF	10V			1		MTZJ8. 2A 8. 2V
Δ	C138	VG290500		1uF	50V			THE RESERVE OF THE PERSON OF T	DIODE. ZENR	AND ADDRESS OF THE PARTY OF THE
	C139			3300uF	25V				DIODE. ZENR	560.4 1 28
	C140	VG289100	Land to the second	330uF	25V		5 5 5	KB001660	ENVISE DESCRIPTION	T1.60A 250V(A)
	C141	VK574500		8200uF	63V	Δ		VS823100	N 100 -00000	6.0A 125V (UCR)
	C142	VK574500		8200uF	63V	Δ		KB001660	\$ 795 LCSGSTMANNESS	T1.60A 250V(R)
	C143	VR325400	and a communication of the com	0. 1uF	100V	Δ		VK188200		220 Ω 1/4W
	C144	VR325400		0. 1uF	100V	Δ		VK188200	Control of the contro	220 Ω 1/4W
		VG288900	AND THE CONTRACT OF THE CONTRA	100uF	25V(R)		JK103	VK480600	OUTLET. AC	(UCR)
	C150	VG290900	The state of the s	10uF	50V(R)		1	VP575600	The second of the second of	1.5uH
	Secretary of the second	VG289100	- 000T45543415343	330uF	25V (UCR)		L102	VP575600	COIL	1.5uH
	C151	VK699400		330uF	63V(R)		Q101	VK432900	TR	2SD1915F S,T
	C152	FG214100	C. CE	0.01uF	50V		Q102	VK432900	TR	2SD1915F S,T
Δ	C157	VS741700	C. CE. SAFTY	0.01uF	275V	\triangle	Q103	iA097000	TR	2SA970 GR,BL
Δ	C168	VE326000	C. MYLAR. ML	0. 1uF	50V	\triangle	Q104	iA097000	TR	2SA970 GR,BL
	C169	VE326000	C. MYLAR. ML	0. 1uF	50V	\triangle	Q105	iA097000	TR	2SA970 GR,BL
	C172	UA652470	C. MYLAR	470pF	50V	\triangle	Q106	iA097000	TR	2SA970 GR,BL
	C180	VF964800	C. EL	100uF	16V	\triangle	Q107	iC1815C0	TR	2SC1815 Y
	C181	VF964800	C. EL	100uF	16V	\triangle	Q108	iC1815C0	TR	2SC1815 Y
Δ	C182	VE326000	C. MYLAR. ML	0.1uF	50V	\triangle	Q109	iC1815C0	TR	2SC1815 Y
Δ	C183	VE326000	C. MYLAR. ML	0. 1uF	50V	\triangle	Q110	iC1815C0	A-1-1-1-1-1	2SC1815 Y
	C199	FG214100	C. CE	0.01uF	50V		Q111	VE198700		2SA1145 0,Y
Δ	C202	11,000,000,000	C. MYLAR. ML	0.1uF	50V		100000000000000000000000000000000000000	VE198700	22-20-2	2SA1145 0,Y
	Part Specifical	C - ADADAMSCHART UTS TIME-CO	C. MYLAR. ML	Parished to allow a	50V	\triangle		iA101521	*** 5.00 Fine	2SA1015 Y
	C204	VG290500	Total Police	1uF	50V	Δ	Q114	iA101521		2SA1015 Y
	C205	VF964800	150	100uF	16V	Δ	Q115	VE198800	100000000000000000000000000000000000000	2SC2705 0,Y
	D101	VD631600	Constitution and Associate	1SS133,176	100	Δ	Q116	VE198800	.5009921	2SC2705 0,Y
	D102	VD631600	Design Street St	1SS133,176		Δ	Q117	VC218900		2SC3330 R,S,T
	1				1			1	I .	

MAIN P.C.B./FUNCTION P.C.B.

		Schm			
		Ref.	PART NO.	Descr	i p t i o n
Δ			VC218900		2SC3330 R,S,T
Δ		100	iX603580		2SA1358
Δ			iX603590	1000000	2SC3421
Δ			i X603580		2SA1358
Δ		Q120A	i X603590	TR	2SC3421
Δ	#	Q123B	i X606460	TR	2SA1492 O,P,Y
Δ	#	Q123A	i X606470	TR	2SC3856 0,P,Y
Δ	#	Q124B	i X606460	TR	2SA1492 O,P,Y
	#	Q124A	i X606470	TR	2SC3856 0,P,Y
		Q127	VP883100	TR	2SC1890A D,E
		Q128	VP883100	TR	2SC1890A D,E
		Q129	VP883000	TR	2SA893A D,E
		Q132	iC1815C0	TR	2SC1815 Y
		Q133	VK432900	TR	2SD1915F S,T
		Q134	VP883100	TR	2SC1890A D,E
		Q135	VF325300	TR. DGT	DTA123ESTP
		Q136	VF325300	TR. DGT	DTA123ESTP
		Q137	VF325300	TR. DGT	DTA123ESTP
		Q140	iC224030	TR	2SC2240 GR,BL
		Q141	VP768300	TR	2SC4466 O,P,Y(R)
		Q142	iC1815C0	TR	2SC1815 Y(R)
\triangle		R125	HL315100	R. MTL. OXD	100 Ω 1W
Δ		R126	HL315100	R. MTL. OXD	100 Ω 1W
\triangle		R127	HL315100	R. MTL. OXD	100 Ω 1W
\triangle		R128	HL315100	R. MTL. OXD	100 Ω 1W
\triangle		R129	HV456270	R. CAR. FP	2.7KΩ 1/4W
$oldsymbol{\Lambda}$		R130	HV456270	R. CAR. FP	2.7KΩ 1/4W
\triangle		R131	HV456100	R. CAR. FP	1KΩ 1/4W
\triangle		R132	HV456100	R. CAR. FP	1KΩ 1/4W
\triangle		R135	HZ003780	R. MTL. PLAT	$0.22 \Omega + 0.22 5W$
Δ		R136	HZ003780	R. MTL. PLAT	$0.22 \Omega + 0.22 $ 5W
Δ		R143	HL314100	R. MTL. OXD	10 Ω 1W
Δ		R144	HL314100	R. MTL. OXD	10 Ω 1W
		R145	HL314100	R. MTL. OXD	10 Ω 1W
		R146		R. MTL. OXD	10 Ω 1W
		R150		R. MTL. OXD	10K Ω 1W
		R152		R. MTL. OXD	47 Ω 1W
		R154	Longon and Market Committee	R. MTL. OXD	470 Ω 1W
		- 1		R. MTL. OXD	470 Ω 1W
		R168	AND SHOULD BOOK TO YOU DO	R. MTL. OXD	470 Ω 1W
		R171		R. CAR. FP	1Ω $1/4W$
Δ		R172	Surfaces out terrores to re-	R. CAR. FP	1Ω $1/4W$
		R177		R. MTL. OXD	680 Ω 1W
		R178		R. MTL. OXD	680 Ω 1W
		R203		R. MTL. FLM	4.7Ω 1W
		R204	less not a superior and a superior of the	R. MTL. FLM	4.7Ω 1W
		R205	F10077	R. MTL. FLM	4.7Ω 1W
1.27		R206	the second control of the second	R. MTL. FLM	4.7Ω 1W
Δ		R230	The contract of the contract o	R. MTL. OXD	470 Ω 2W
Δ		R278	Calabara Salamanan maraka ke 1	R. MTL. OXD	470 Ω 2W
Δ		R279	reserve the second	R. MTL. OXD	1. 2K Ω 2W
Δ		R280		R. MTL. OXD	470Ω 1W
		R281	HV456470	K. CAR. FP	$4.7 \mathrm{K}\Omega$ $1/4 \mathrm{W}$

R286 HV455270 R. CAR. FP 270 Ω 1 R287 HV455270 R. CAR. FP 270 Ω 1 R288 HV456100 R. CAR. FP 1K Ω 1	n
R283 HV453470 R. CAR. FP 4. 7 Ω 1 R286 HV455270 R. CAR. FP 270 Ω 1 R287 HV455270 R. CAR. FP 270 Ω 1 R288 HV456100 R. CAR. FP 1K Ω 1 R289 HV456100 R. CAR. FP 1K Ω 1 RY101 VK438300 RELAY DH24D2-OTM-DC JW2ASN-EDC JW	1
R286 HV455270 R. CAR. FP 270 Ω 1 R287 HV455270 R. CAR. FP 270 Ω 1 R288 HV456100 R. CAR. FP 1K Ω 1 R289 HV456100 R. CAR. FP 1K Ω 1 RY101 VK438300 RELAY DH24D2-OTM-DH24D2-DH24D2-OTM-DH24D2-DH24D2-OTM-DH24D2-DH24D2-OTM-DH24D2-DH24D2-OTM-DH24D2-DH24D2-DH24D2-DH24D2-DH24D2-DH24D2-DH24D2-D	
R286 HV455270 R. CAR. FP 270 Ω 1 R287 HV455270 R. CAR. FP 270 Ω 1 R288 HV456100 R. CAR. FP 1K Ω 1 R289 HV456100 R. CAR. FP 1K Ω 1 RY101 VK438300 RELAY DH24D2-OTM-DH24D2-DH24D2-OTM-DH24D2-DH24D2-OTM-DH24D2-DH24D2-OTM-DH24D2-DH24D2-OTM-DH24D2-DH24D2-DH24D2-DH24D2-DH24D2-DH24D2-DH24D2-D	1/4W
R287 HV455270 R. CAR. FP 270 Ω 1 R288 HV456100 R. CAR. FP 1K Ω 1 R289 HV456100 R. CAR. FP 1K Ω 1 RY101 VK438300 RELAY DH24D2-OTM-DH24D2-DH24D2-OTM-DH24D2-DH24D2-DH24D2-OTM-DH24D2-DH24D2-DH24D2-DH24D2-DH24D2-DH24D2-DH24D2-DH24D2-DH24D2-	1/4W
R288 HV456100 R. CAR. FP 1K Ω	1/4W
R289 HV456100 R. CAR. FP 1K Ω DH24D2-OTM-DH24D2-OTM-DH24D2-OTM-DH24D2-OTM-DH24D2-OTM-DH24D2-OTM-DC JW2ASN-DC JW2AS	1/4W
RY101 VK438300 RELAY DH24D2-OTM- RY102 VK438300 RELAY DH24D2-OTM- RY103 VT561500 RELAY DC JW2ASN-I RY104 VH230800 RELAY G5P-1-DC12V SW104 VA961800 VOLT. SELCT T101 XC082A00 TRANS. PWR T101 XC083A00 TRANS. PWR T101 XC084A00 TRANS. PWR TE101 VC313700 TERM. SP TE101 VK506200 TERM. SP TE101 VK506200 TERM. SP BB071360 SCR. TERM BB071360 GND. MTL * VS981000 P. C. B. FUNCTION	1/4W
* RY102 VK438300 RELAY DH24D2-OTM- RY103 VT561500 RELAY DC JW2ASN-I RY104 VH230800 RELAY G5P-1-DC12V SW104 VA961800 VOLT. SELCT ESE-37247-I T101 XC082A00 TRANS. PWR (R) T101 XC083A00 TRANS. PWR (UC) T101 XC084A00 TRANS. PWR (A) TE101 VC313700 TERM. SP 8P (UCR) TE101 VK506200 TERM. SP 8P (A) UJ828000 PIN SCR. TERM 8. 3x13 * VS981000 P. C. B. FUNCTION	
* RY103 VT561500 RELAY G5P-1-DC12V SW104 VA961800 VOLT. SELCT T101 XC082A00 TRANS. PWR T101 XC083A00 TRANS. PWR T101 XC084A00 TRANS. PWR TE101 VC313700 TERM. SP TERM. SP TE101 VK506200 TERM. SP TERM. SP BB071360 BB071360 GND. MTL * VS981000 P. C. B. FUNCTION	177.00
RY104 VH230800 RELAY VOLT. SELCT ESE-37247-F (R) T101 XC082A00 TRANS. PWR (R) T101 XC084A00 TRANS. PWR (A) TE101 VC313700 TERM. SP TERM. SP TERM. SP VJ828000 BB071360 SCR. TERM GND. MTL * VS981000 P. C. B. FUNCTION	CHROSE VE HOSTING
SW104 VA961800 VOLT. SELCT TRANS. PWR TRANS. PWR TRANS. PWR TRANS. PWR TE101 VC313700 TERM. SP TERM. SP TERM. SP TERM. SP BB071360 BB071360 GND. MTL * VS981000 P. C. B. FUNCTION	the state of the
T101 XC082A00 TRANS. PWR (R) T101 XC083A00 TRANS. PWR (UC) T101 XC084A00 TRANS. PWR (A) TE101 VC313700 TERM. SP TE101 VK506200 TERM. SP VJ828000 PIN BB071360 SCR. TERM BB070700 GND. MTL * VS981000 P. C. B. FUNCTION	
T101 XC083A00 TRANS. PWR (UC) T101 XC084A00 TRANS. PWR (A) TE101 VC313700 TERM. SP 8P(UCR) TE101 VK506200 TERM. SP 8P(A) VJ828000 PIN SCR. TERM 8. 3x13 BB070700 GND. MTL * VS981000 P. C. B. FUNCTION	
T101 XC084A00 TRANS, PWR TE101 VC313700 TERM, SP 8P(UCR) TE101 VK506200 TERM, SP 8P(A) VJ828000 PIN IMSA-6024-0 BB071360 SCR, TERM GND, MTL * VS981000 P. C. B. FUNCTION	
TE101 VC313700 TERM. SP 8P(UCR) TE101 VK506200 TERM. SP 8P(A) VJ828000 PIN SCR. TERM 8. 3x13 * VS981000 P. C. B. FUNCTION	
TE101 VK506200 TERM, SP VJ828000 PIN SCR, TERM BB071360 BB070700 GND, MTL SP IMSA-6024-0 8, 3x13	
* VJ828000 PIN BB071360 SCR. TERM BB070700 GND. MTL 8. 3x13 * VS981000 P. C. B. FUNCTION	
* VS981000 P. C. B. FUNCTION	03E
* VS981000 P. C. B. FUNCTION	
* VS981000 P. C. B. FUNCTION	
TORROTT VOICE TO THE TIPE	
CB302 VQ963200 CN. BS. PIN 11P	
CB303 VK026500 CN. BS. PIN 6P CB304 Vi878400 CN. BS. PIN 6P	
CB304 V1878400 CN. BS. PIN 6P	
CB305 V1676300 CN. BS. FIN 7P	
CB307 VQ961000 CN. BS. PIN 7P	
CB308 VQ962800 CN. BS. PIN 7P	
CB309 VB858200 CN. BS. PIN 3P	
CB310 VR362000 CN. BS. PIN 13P	
CB311 VD004600 CN. BS. PIN 3P	
CB315 VB390800 CN. BS. PIN 12P	
CB316 VD004800 CN. BS. PIN 5P	
CB317 VQ963600 CN. BS. PIN 15P	
CB318 VQ962700 CN. BS. PIN 6P	
	50V
	50V
	10V
	10V
	50V
	50V
	50V 50V
	50V 50V
	50V
	001
	50V
	50V 50V
0010	50V
	50V 25V
	50V
	50V 25V 25V

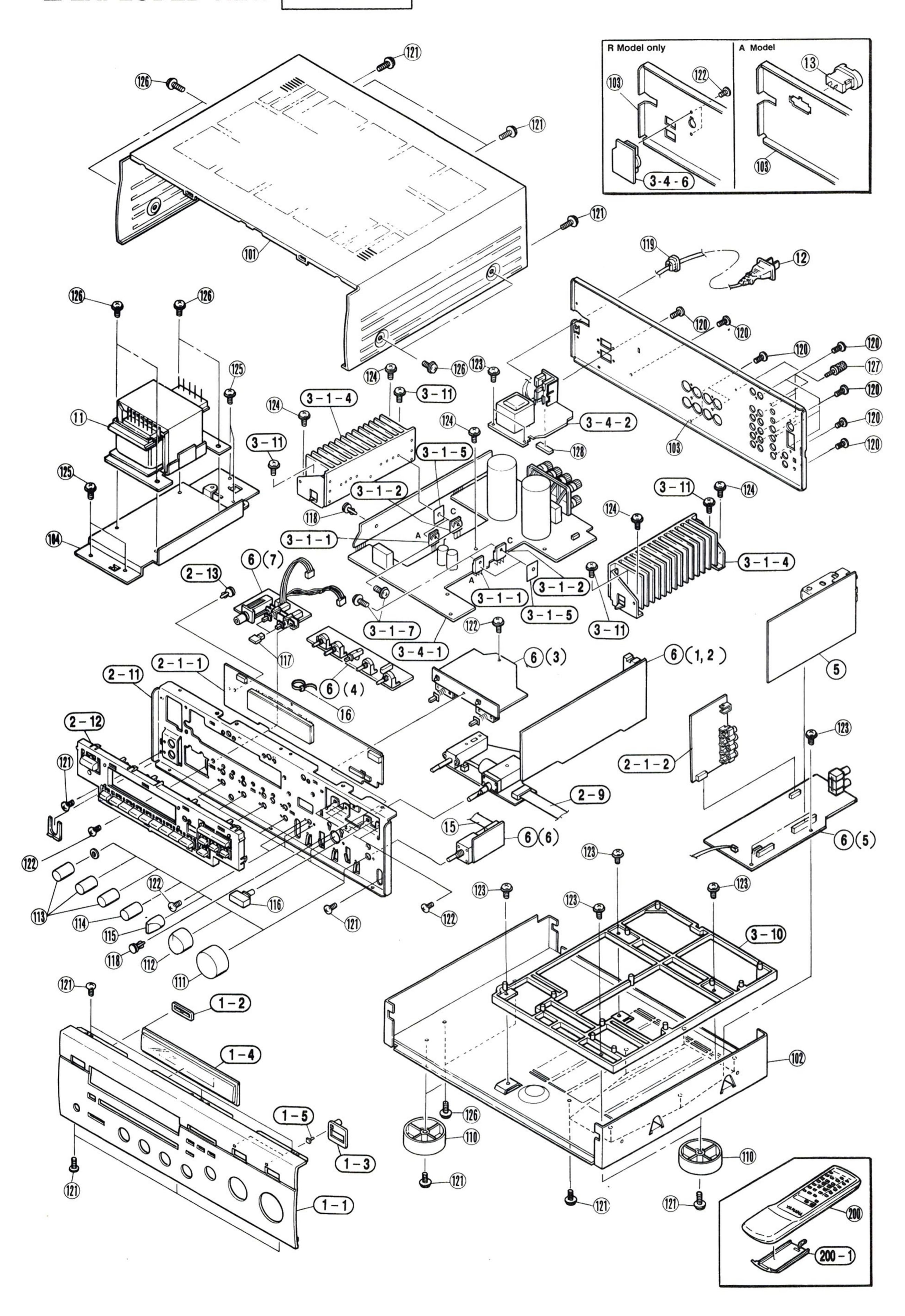
FUNCTION P.C.B./OPERATION P.C.B.

Schm				
6.6	PART NO.	Descr	iptio	n
C319	VG278400	C. CE. TUBLR	220pF	50V
C320		C. CE. TUBLR		50V
C321	UA652100		100pF	50V
C322	UA652100		100pF	50V
C323	The second secon	C. CE. TUBLR	220pF	50V
C324		C. CE. TUBLR		50V
C325	UA652220		220pF	50V
C326	UA652220	100	220pF	50V
C327	Vi377400	Annual Contraction	4.7uF	63V
C328	Vi377400	C. EL	4.7uF	63V
C329	VG290900	C. EL	10uF	50V
C330	VG290900	C. EL	10uF	50V
C331	VS212500	C. MYLAR	2200pF	50V
C332	VS212500	C. MYLAR	2200pF	50V
C333	VG287800	C. EL	330uF	16V
C334	VG287800	C. EL	330uF	16V
C335	VG287800	C. EL	330uF	16V
C336	VG287800	C. EL	330uF	16V
C337	FG211470	C. CE	47pF	50V
C338	FG211470	C. CE	47pF	50V
C339	VG290300	C. EL	0.47uF	50V
C340	VG290300	C. EL	0.47uF	50V
C341	Vi377400	C. EL	4.7uF	63V
C342	Vi377400	C. EL	4.7uF	63V
C343	VF466700	C. CE. TUBLR	47pF	50V
C344	VF466700	C. CE. TUBLR	47pF	50V
C345	VG290900	C. EL	10uF	50V
C346	VG290900	C. EL	10uF	50V
C347	VS212500	C. MYLAR	2200pF	50V
C348	VS212500	C. MYLAR	2200pF	50V
C349	UA655120	C. MYLAR	0.12uF	50V
C350	UA655120	C. MYLAR	0.12uF	50V
C351	UA655120	C. MYLAR	0.12uF	50V
C352	UA655120	C. MYLAR	0.12uF	50V
C353	UA254330	C. MYLAR	0.033uF	50V
C354	UA254330	C. MYLAR	0.033uF	50V
C355	VS214100	C. MYLAR	0.068uF	50V
C356	VS214100	C. MYLAR	0.068uF	50V
C357	VG279000	C. CE. TUBLR	820pF	50V
C358	VG279000	C. CE. TUBLR	820pF	50V
C361	VG278400	C. CE. TUBLR	220pF	50V
C362	VG278400	C. CE. TUBLR	220pF	50V
C363	VE326000	C. MYLAR. MI.	0. 1uF	50V
C364	VE326000	C. MYLAR. ML	0. 1uF	50V
C382	VG290900	C. EL	10uF	50V
C383	VG287800	1	330uF	16V
C384		C. CE. TUBLR	140	50V
C385		C. CE. TUBLR		50V
C386		C. CE. TUBLR		50V
C387	1	C. CE. TUBLR		50V
C388	The same of the sa	C. CE. TUBLR		50V
C389	The second secon	C. CE. TUBLR		50V
C390	VF466700	C. CE. TUBLR	47pF	50V
* Now F	and a			

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	Schm			
	Ref.	PART NO.	Descr	iption
	C391	VG289100	y 12 (2000) 12 (12 (12 (12 (12 (12 (12 (12 (12 (12	330uF 25V
		FG214100		0.01uF 50V
		VP593800		SLR-305DCA47
		VP593800		SLR-305DCA47
		VD631600	THE RESIDENCE OF STREET	1SS133,176,HSS104
		VD631600		1SS133,176,HSS104
	D418	VG440300	DIODE. ZENR	MTZJ12C 12V
	IC301	XM356A00	IC	NJM2068LD
	IC302	XM356A00	IC	NJM2068LD
	IC303	XM356A00	IC	NJM2068LD
	JK301	VS899700	JACK. PHONE	JY-6317-02-030
	PJ301	VR765100	JACK. PIN	2P
	PJ302	VR765100	JACK. PIN	2P
*	PJ303	VT029000	JACK. PIN	4P
	PJ304	VJ794600	JACK. PIN	6P
	Q301	VK432900	TR	2SD1915F S,T
	Q302	VK432900	TR	2SD1915F S,T
	Q303	VG721700	TR. DGT	DTA144ES
	Q304	VD678700	TR. DGT	DTC114ES
	Q315	VS826900	TR	2SD2375 Q,P
	R319	HL315470	R. MTL. OXD	470 Ω 1W
	R320	HL315470	R. MTL. OXD	470 Ω 1W
			Full services outsings:	100 Ω 1W
	- Carlotte Carlotte Carlotte	CALLES CONTRACTOR OF THE STATE	R. MTL. OXD	100 Ω 1W
	R361			470Ω 1W
			R. MTL. OXD	470 Ω 1W
		VT146000		SRBAA46
		VS892400	100	SRRZS400037X
		VP870800		SPUL12
		VP870800		SPUL12
	1	VJ850200	TOD 7400 DOMESTS	PSE021A2KP 2
			TERM. WRAP	2P
	5.000	VR262000	922	Α100ΚΩ
		VP741800	99559933	B20K Ω
		VP741900	0300000	G25K Ω
		VP700700		Α100ΚΩ
		VP742000	100000000	MN50KΩ
	INOUG	VJ828000	25000	IMSA-6024-03E
			SCR. TERM	8. 3x13
		BB069510		No. 6951
		חופפססמת	GND. HIL	110.0001
*		VS981100	PCD	OPERATION (UC)
		**************************************		OPERATION(R)
*	•	VS981200		
*	CDEAT	VS981300	0.000	OPERATION(A)
	1		CN. BS. PIN	9P
		L.	CN. BS. PIN	13P
			CN. BS. PIN	6P
	C501	VJ836900		10uF 16V
	C502	VJ836900		10uF 16V
	C503	VS672200		4700uF 5.5V
	C504	VH053100	C. CE. TUBLR	0. 1uF 50V

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	Schm			
	Ref.	PART NO.	Descr	i p t i o n
	CEAE	VUOEDIAA	C CE TUDI D	0 1E E0V
	- 1	VH053100 VJ839100	C. CE. TUBLR	0. 1uF 50V 1uF 50V
	100000000000000000000000000000000000000		C. CE. TUBLR	
	THE COURSE OF THE PARTY OF THE	VII053100 VJ837200		47uF 16V
	1	UM417100	22 III	10uF 50V
		VF637900		1000uF 10V
	100000000000000000000000000000000000000	UM417100	12-12-100 Per 1-15-1-15	10uF 50V
	ACCUMULATE OF DESIGN	VF637900	5.731 NO. 11 SANS	1000uF 10V
	1990.00 000000	FG251220	0.0000000000000000000000000000000000000	22pF 50V
		UJ628470	. 10	470uF 10V
	N 100 11 11 10 10 10 10 10 10 10 10 10 10		C. CE. TUBLR	200-200-200 (CPC) (PCC)
	200000000000000000000000000000000000000	UM417100		10uF 50V
		VF760000	1	100uF 10V
	STOROUGH AND SECTION	VF760000		100uF 10V
	RESERVATION OF	VJ836900	(T) 1 (12-1)	10uF 16V
	L.D	UJ667470	PRO COLOROS	47uF 50V
	D501	VP489100	LED	SIR-481ST3F(UC)
	D502	VG437800	DIODE. ZENR	MTZJ5.6C 5.6V
	D503	VD631600	DIODE	1SS133,176,HSS104
	D506	VD631600	DIODE	1SS133,176,HSS104
	D507	VG437800	DIODE. ZENR	MTZJ5.6C 5.6V
	D510	VG437800	DIODE, ZENR	MTZJ5.6C 5.6V
	D513	VG435800	DIODE. ZENR	MTZJ3.0A 3.0V
	D514	VG436700	DIODE. ZENR	MTZJ4.3A 4.3V
	D515	VG438800	DIODE. ZENR	MTZJ8. 2A 8. 2V
*	IC501	XQ308A00	IC	M38122M2-084SP
		XF557A00		TA7291S
		XF557A00	110-0001100	TA7291S
		XH436A00		LA7956
		VJ726800	CONTRACTOR	
		VJ726800		AD
		VM750500		4P
		VC218900	***************************************	2SC3330 R,S,T
		VC218700	2010000	2SA1317 R,S,T
		VG722000		DTC114ES
		VD678700 VC218900	9 9 3 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	DTC114ES 2SC3330 R,S,T
		iA101521	NAME OF THE PARTY	2SA1015 Y
				2SC1815 Y
		VP883100	100000000000000000000000000000000000000	2SC1890A D,E
		VG392900		SKHVAA
		VG392900	5-57 D1 3-91 D4 500	SKHVAA
		VG392900	1 - CONTROL - CO	SKHVAA
		VG392900		SKHVAA
		VG392900	10000000	SKHVAA
		VG392900		SKHVAA
4	•			

Schm Ref.	PART NO.	Descr	i p t i o n
SW515 SW516 SW517 U501 V501	VG392900 VG392900 VG392900 VR860700 VQ915100 VE906000	SW. TACT SW. TACT SW. TACT L. DTCT FL. DSPLY RSNR. CE SCR. TERM SHEET	SKHVAA SKHVAA SKHVAA SPS-422-1 8-MT-79GK 4MHz 8. 3x13 FL-T6



MECHANICAL PARTS Note) ø : Diameter

- 1	Ref. No.	PART NO.	Descrip	tion		Remarks	Markets
ĸ	1- 1	VS586300	FRONT PANEL				
	1- 2		BUTTON GUIDE				
- 1		The second of the Proposition Association and the second	BUTTON GUIDE	10x25			
		AND THE PROPERTY OF THE PARTY OF THE PARTY.	WINDOW PANEL				
		VH897700		2. 2Lx2. 2			
k !			P. C. B. ASS' Y	OPERATION			(UC)
			P. C. B. ASS' Y	OPERATION			(R)
k !	1		P. C. B. ASS' Y	OPERATION			(A)
			CONNECTOR, FLAT CABLE	9P 250mm			
			SUB CHASSIS				
k !			BUTTON, CASE				
1	nc n 1		PUSH RIVET	Р3555-В			
			TRANSISTOR	2SA1492 ()	.Р.У	Q123B,Q124B	
			TRANSISTOR	2SC3856 0		Q123A,Q124A	
			HEAT SINK ASS' Y				
		VK195900		19x24			
	1		SCREW, TRANSISTOR	3x15 SP	FCM3		
	- 1		P. C. B. ASS' Y	MAIN			(UC)
	- 1		P. C. B. ASS' Y	MAIN			(R)
	- 1		P. C. B. ASS' Y	MAIN			(A)
		VS586500					
			BW HEAD P-TITE SCREW	3x10-8	FCM3		
, ,			P. C. B. ASS' Y	TUNER	1 0110	59	(UC)
	- 1		P. C. B. ASS' Y	TUNER			(R)
	1		P. C. B. ASS' Y	TUNER			(AB)
	6		P. C. B. ASS' Y	FUNCTION			(AD)
	11		POWER TRANSFORMER				(U)
	11	-	POWER TRANSFORMER				(C)
	11	Secretary and the	POWER TRANSFORMER				(R)
1	11		POWER TRANSFORMER				(A)
1	12		POWER CORD ASS' Y				(R)
	12	The second secon	POWER CORD ASS' Y				(A)
	12		POWER CORD ASS' Y				(UC)
	13		AC OUTLET	2P			
			CONNECTOR, FLAT CABLE	13P 180mm			(A)
			BINDING TIE	BK-1			
1			TOP COVER	DICT			
	- 1	VS001200 VS001400	Productions of the Pain Constant				
1			REAR PANEL				(11)
		20 20 20 20 20 20 20 20 20 20 20 20 20 2	REAR PANEL REAR PANEL				(U)
	1		REAR PANEL REAR PANEL				(C)
							(R)
			REAR PANEL				(A)
			FRAME, PCB	DCOII1C			
		VQ780300		D60xH16			
	1	VQ795100		D42			
		VS742200		D32			
1		VS409600		D18			
	1		KNOB D18L	D18			
			KNOB, SEL	D18			
1		VQ780000		0 1 4			
		VQ779000		3x14	•		
		100 March 100 Ma	PUSH RIVET	P3555-B			
1	2 10 20 00		CORD STOPPER	No. 2104	Danie		
			BIND HEAD BONDING TAP. SCREW		FCRM3-BL		
1 -	121	トエススリリなど	BIND HEAD B-TITE SCREW	3x8	FCRM3-BL	I	1

^{*} New Parts

- 1	Ref. No.	PART NO.	Descrip	t i o n	Remarks	Markets
- 1	123 124 125 126 127	EX602240 EL300480 EK365020 EL300470 AA627310	BIND HEAD SCREW BW HEAD TAPPING SCREW BW HEAD B-TITE SCREW BW HEAD SCREW BW HEAD S-TITE SCREW GROUND TERMINAL SPACER, PCB	3x6 FCRM3-BL 3x10 3x15-8 FCRM3-BL 4x6 FCRM3-BL 4x8-10 FCRM3-BL		(A)
- 1	200 200 - 1	CX675300 VQ099100 VQ147100	ACCESSORIES REMOTE CONTROL TRANSMITTER LID AM LOOP ANTENNA ANTENNA, FM ANTENNA ADAPTER BATTERY, MANGANESE	CX675300 70x31BLSMK 1.0m 1P 1.4m SUM-3,AA,R06	103RRS-028-01MR	

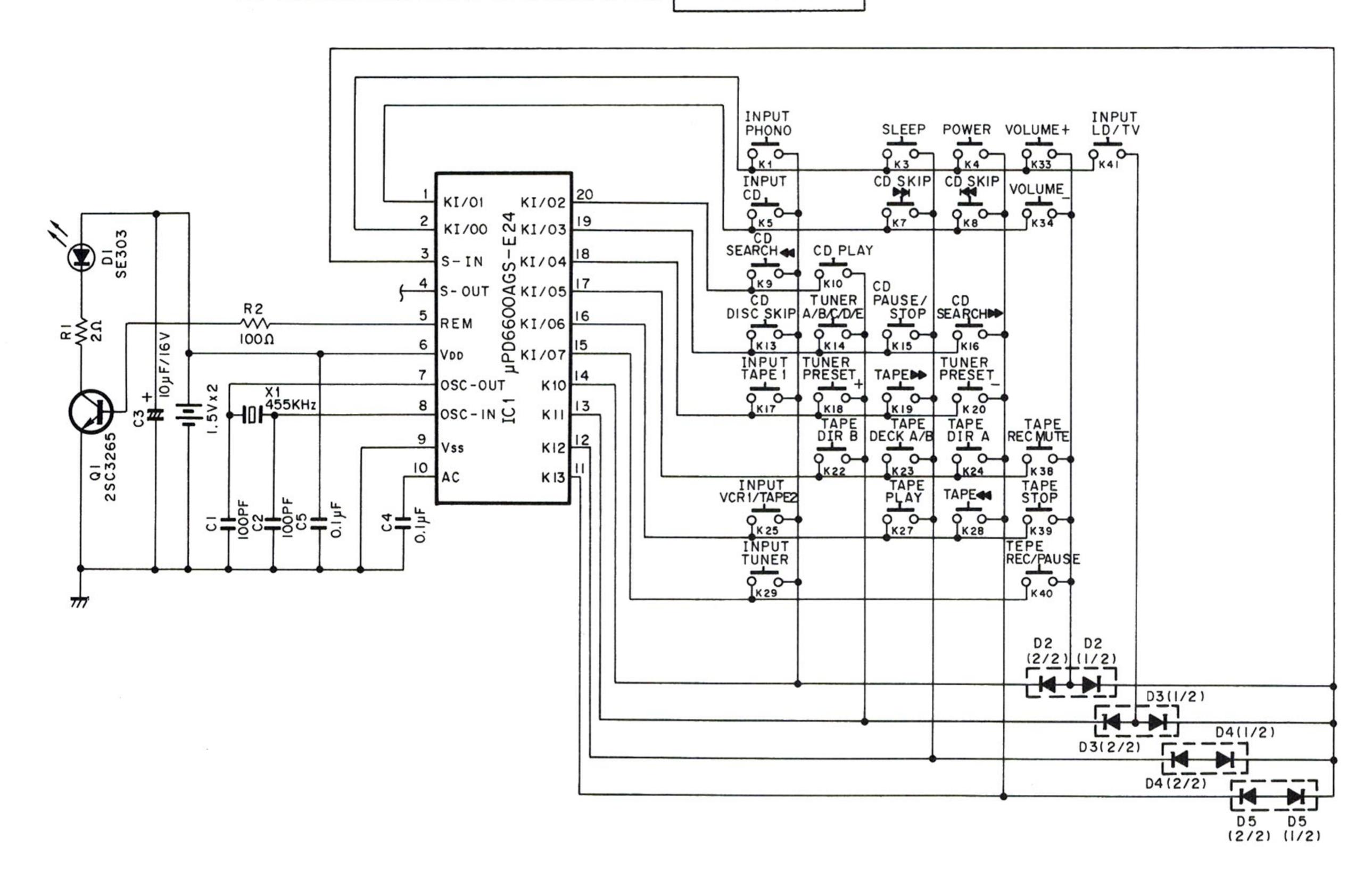
^{*} New Parts

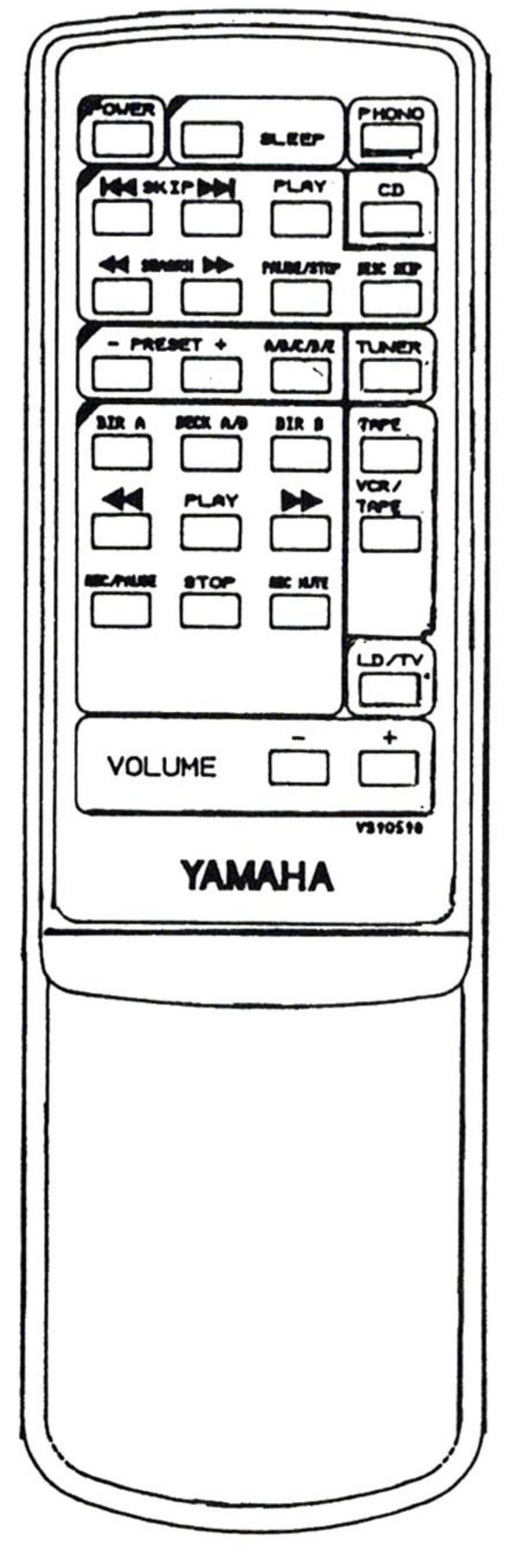
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REMOTE CONTROL TRANSMITTER

SCHEMATIC DIAGRAM

RX-595





Key	F	HE	HEX		
No.	Function	CUSTOM	DATA		
1	INPUT PHONO	7A	14		
3	SLEEP	7A	57		
4	POWER	7A	1F		
5	INPUT CD	7A	15		
7	CD SKIP ►►	7A	0A		
8	CD SKIP ►	7A	0B		
9	CD SEARCH ◀◀	7A	OD		
10	CD PLAY	7A	08		
13	CD DISC SKIP	7A	4F		
14	TUNER A/B/C/D/E	7A	12		
15	CD PAUSE/STOP	7A	09		
16	CD SEARCH ►►	7A	0C		
17	INPUT TAPE 1	7A	18		
18	TUNER PRESET +	7A	10		
19	TAPE >>>	7A	02		
20	TUNER PRESET -	7A	11		
22	TAPE DIR B	7A	40		
23	TAPE DECK A/B	7A	06		
24	TAPE DIR A	7A	07		
25	INPUT VCR1/TAPE2	7A	19		
27	TAPE PLAY	7A	00		
28	TAPE 🕶	7A	01		
29	INPUT TUNER	7A	16		
33	VOLUME +	7A	1A		
34	VOLUME -	7A	1B		
38	TAPE REC MUTE	7A	05		
39	TAPE STOP	7A	03		
40	TAPE REC/PAUSE	7A	04		
41	INPUT LD/TV	7A	17		