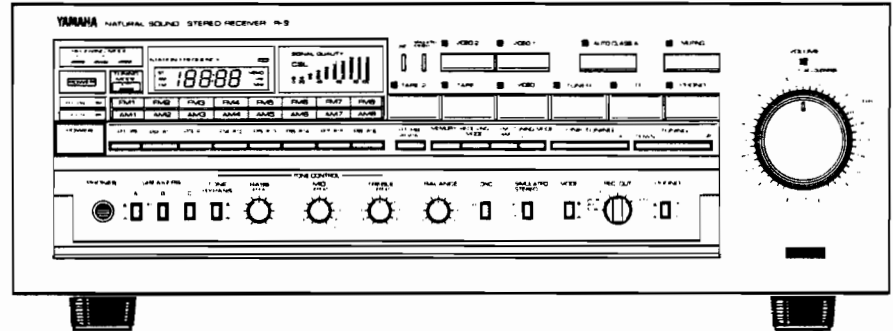
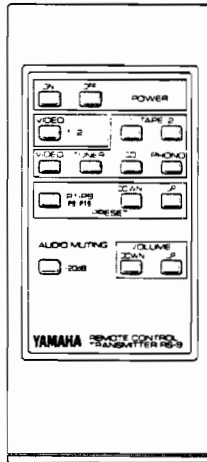


STEREO RECEIVER

R-9

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 all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

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

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

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

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

CONTENTS

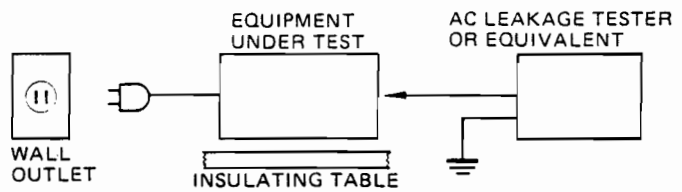
TO SERVICE PERSONNEL	1
REAR PANELS	1
SPECIFICATIONS	2
INTERNAL VIEW	3
DISASSEMBLY PROCEDURES	3
ADJUSTMENTS	4 ~ 7
LSI DATA	8 ~ 11
IC BLOCK	12 ~ 15

PRINTED CIRCUIT BOARD	16 ~ 23
WIRING	24/25
CIRCUIT DATA	26/27
SCHEMATIC DIAGRAM	28 ~ 30
BLOCK DIAGRAM	31
RS-9 REMOTE CONTROL TRANSMITTER	32
PARTS LIST	33 ~ 46



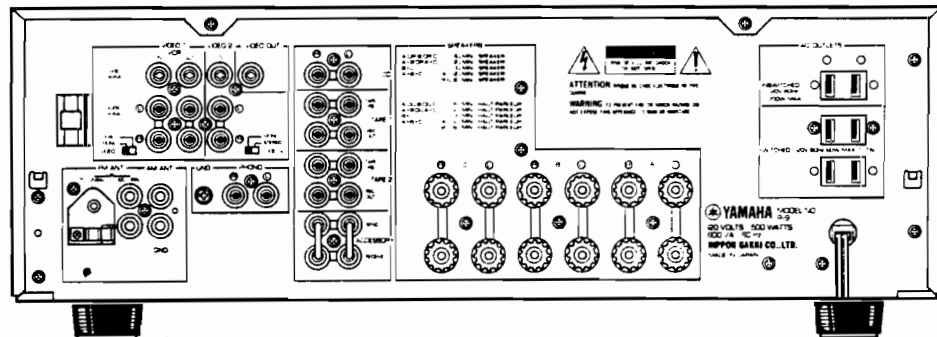
■ TO SERVICE PERSONNEL

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

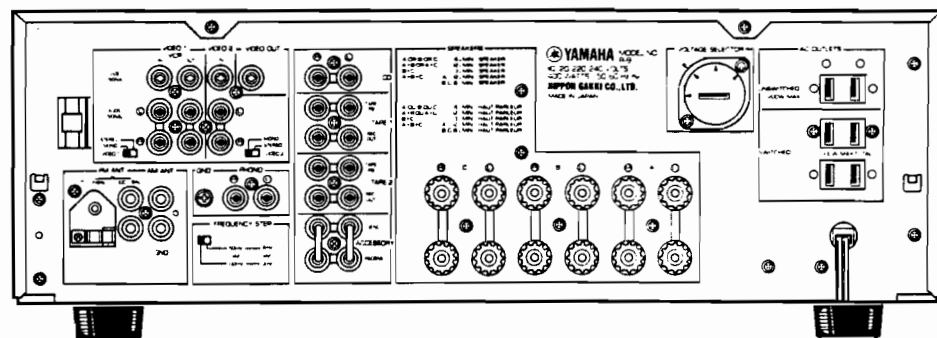


■ REAR PANELS

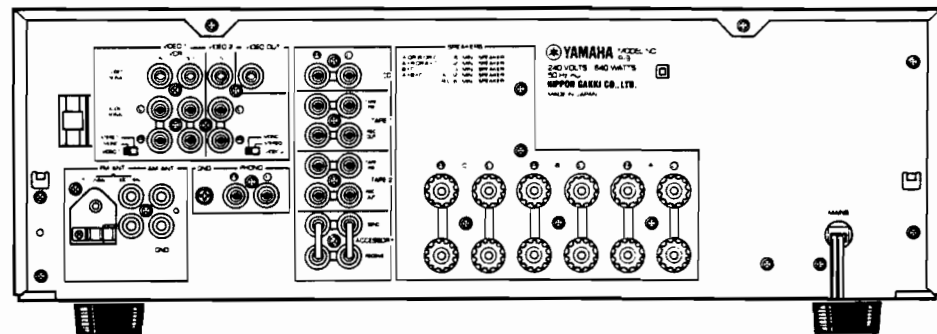
▼ U.S.A. & Canadian models



▼ General model



▼ Australian model



SPECIFICATIONS

AUDIO SECTION

Continuous Power Per Channel	
20Hz ~ 20kHz, 0.015% THD, 8Ω	125W
20Hz ~ 20kHz, 0.03% THD, 6Ω	145W
1kHz, 0.01% THD, 8Ω (IEC Rated Power)	145W
Dynamic Headroom	
8Ω	1.58dB
Dynamic Power	
8Ω (1kHz/channel)	180W
6Ω (1kHz/channel)	220W
4Ω (1kHz/channel)	280W
2Ω (1kHz/channel)	360W
Power Band Width	
0.08% THD, 62.5W, 8Ω	10Hz ~ 50kHz
Damping Factor	
1kHz, 8Ω	60
Input Sensitivity/Impedance	
Phono MC	160μV/220Ω
Phono MM	2.5mV/47kΩ
CD/TAPE/VIDEO	150mV/47kΩ
RECEIVE (ACCESSORY)	150mV/47kΩ
Input Sensitivity (New IHF)	
Phono MC	14μV
Phono MM	0.22mV
CD/TAPE/VIDEO	13.4mV
Maximum-Input Signal (1kHz)	
0.01% THD, Phono MC	8mV
0.01% THD, Phono MM	110mV
Output Level/Impedance	
REC OUT	150mV/470Ω
Headphone Jack Rated Output/Impedance	
0.015% THD	0.91V/270Ω
Frequency Response	
20Hz ~ 20kHz, CD/TAPE/VIDEO	+0 -0.3 dB
RIAA Equalization Deviation	
30Hz ~ 20kHz, Phono MC RIAA	±0.5dB
20Hz ~ 20kHz, Phono MM RIAA	±0.3dB
Total Harmonic Distortion (20Hz ~ 20kHz)	
Phono MC to Rec Out 3V	0.005%
Phono MM to Rec Out 3V	0.003%
CD/TAPE to SP Out 62.5W/8Ω	0.015%
VIDEO to SP Out 62.5W/8Ω	0.02%
Intermodulation Distortion	
CD/TAPE/VIDEO Reted Output/8Ω	0.01%
Signal to Noise Ratio	
Phono MC (500μV, Input Shorted)	75dB
Phono MM (5mV, Input Shorted)	92dB
CD/TAPE (Input Shorted)	103dB
VIDEO (Input Shorted)	91dB
Signal to Noise Ratio (New IHF)	
Phono MC	74.5dB
Phono MM	75dB
CD/TAPE	80dB
Residual Noise (IHF-A-Network)	
	120μV
Channel Separation	
Phono MM, 1kHz, (Input Shorted, Vol. -20dB)	60dB
CD/TAPE/VIDEO, 1kHz (5.1kΩ)	60dB
Tone Control Characteristics	
BASS boost/cut	±10dB (at 50Hz)
turnover frequency	350Hz
TREBLE boost/cut	±10dB (at 20kHz)
turnover frequency	3.5kHz
MID control range	±12dB (at 1kHz)
center frequency	1kHz
Filter Characteristics	
LOW (subsonic, builtin)	10Hz, -12dB/oct
Continuous Loudness Control (Level-related equalization)	
Attenuation	-40dB (at 1kHz)
Audio Muting	
	-20dB

FM SECTION

Tuning Range	87.5MHz ~ 108.0MHz
50dB Quieting Sensitivity (IHF)	
Mono, 75Ω	1.5μV (14.8dBf)
Stereo, 75Ω	20μV (37.3dBf)
Usable Sensitivity (IHF Mono)	
30dB S/N Quieting, 75Ω	0.75μV (8.8dBf)
Image Response Ratio	
	40dB
IF Response Ratio	
	90dB
Spurious Response Ratio	
	70dB
AM Suppression Ratio	
	55dB
Capture Ratio	
Local	1.2dB
DX	2.5dB
Alternate Channel Selectivity	
DX	85dB
Signal to Noise Ratio	
Mono	85dB
Stereo	81dB
Harmonic Distortion	
Mono 100Hz (Local)	0.05%
1kHz (Local)	0.05%
6kHz (Local)	0.1%
Stereo 100Hz (Local)	0.07%
1kHz (Local)	0.07%
6kHz (Local)	0.15%
Stereo Separation	
Local 50Hz	45dB
1kHz	50dB
10kHz	45dB
Frequency Response	
30Hz to 13kHz	±0.5dB
Output Level/Impedance (Rec Out)	
FM 100% MOD, 1kHz	500mV/2.8kΩ

AM SECTION

Tuning Range	510kHz ~ 1620kHz (U)(C) 510kHz ~ 1620kHz or 513kHz ~ 1620kHz (R) 513kHz ~ 1620kHz (A)
Usable Sensitivity	250μV/m
Selectivity	24dB
Signal to Noise Ratio	50dB
Image Response Ratio	40dB
Spurious Response Ratio	50dB
Harmonic Distortion (400Hz)	0.3%
Output Level/Impedance (Rec Out)	
AM 30% MOD, 400Hz	150mV/2.8kΩ

GENERAL

Power Supply	
U.S.A. & Canadian models	120V AC, 60Hz
General model	110V/120V/220V/240V AC, 60/50Hz
Australian & British models	240V AC, 50Hz
Power Consumption	
	500W (U)(C)
	400W (R)
	640W (A)
AC Outlet (U)(C)(R) only	
Switched x 2	100W max. (R) 60W max. (U)(C)
Unswitched x 1	200W max.
Dimensions (W x H x D)	
	435 x 151 x 423 mm (17-1/8" x 5-15/16" x 16-5/8")
Weight	
	12 kg (26 lbs. 7 oz.)

Specifications subject to change without notice.

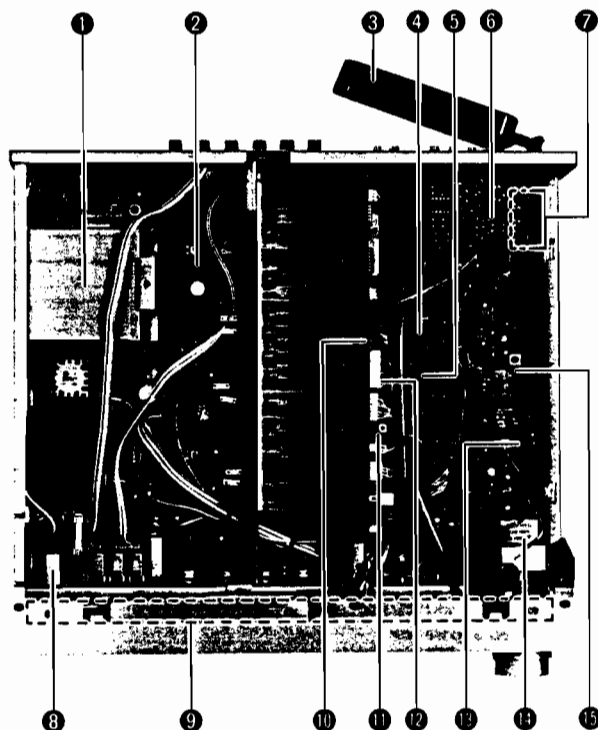
(U) U.S.A. model

(C) Canadian model

(A) Australian model

(R) General model

INTERNAL VIEW



- ① POWER TRANSFORMER
U.S.A. model: GA69090
Canadian model: GA69100
General model: GA69110
Australian model: GA69120
- ② MAIN CIRCUIT BOARD (1)
- ③ AM LOOP ANTENNA
- ④ CSL CONTROLLER IC:
LC6510C-695
- ⑤ PLL IC: LC7210
- ⑥ MAIN CIRCUIT BOARD (3)
- ⑦ FRONT END PACK
- ⑧ POWER SWITCH
- ⑨ KEY BOARD CIRCUIT BOARD
- ⑩ TUNER CIRCUIT BOARD (2)
- ⑪ MOTOR CONTROL IC: M54542
- ⑫ A.V CONTROLLER IC:
LC6505C-696
- ⑬ MPX IC: LA3400
- ⑭ POTENTIOMETER WITH MOTOR
- ⑮ TUNER CIRCUIT BOARD (1)

DISASSEMBLY PROCEDURES

1. Removal of Top Cover

Remove 6 screws (①) in Fig. 1, and Slide the Top Cover back and up.

2. Removal of Bottom Cover

Remove 8 screws (②) in Fig. 1.

3. Removal of Panel Unit

- a. Remove the knobs.
- b. Remove 4 screws (③) in Fig. 1, and pull the Panel Unit forward.

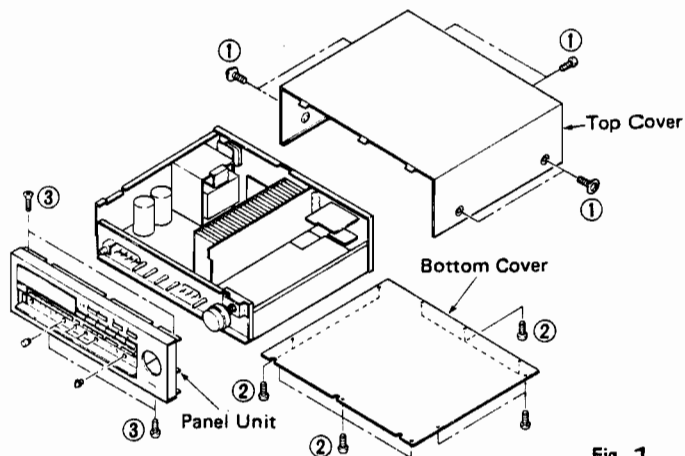
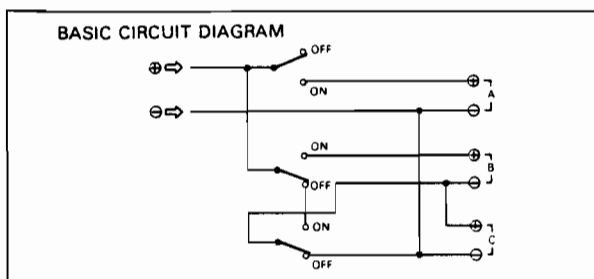


Fig. 1

SPEAKER SELECTION SWITCHES

The B Speaker and C Speaker terminals are configured in series (please refer to the Basic Circuit Diagram). When using either the B or C Speaker terminals independently of the other, it is necessary that the terminals not being used are turned OFF with the front panel speaker selector switch.



■ ADJUSTMENTS

1. Before adjustment

- After the power switch is pushed on, wait for 5 minutes before measuring, to be sure of the most stable operation.
- Adjust the OSC coil and IFT with a nonferrous screw driver.
- Set the switches to the following positions.
TUNING MODE AUTO
RECEIVING MODE AUTO
AUTO CLASS A OFF
- Proceed with the AM section adjustments after having finished the FM section adjustment.
- $0\text{dB}\mu = 1\mu\text{V}$ Ex: $60\text{dB}\mu = 1\text{mV}$

2. Measuring instruments abbreviation

FM SG : FM signal generator
SSG : Stereo signal generator
AM SG : AM signal generator
DIST. M : Distortion meter
ACVM : AC voltmeter
DCVM : DC voltmeter

<POWER SUPPLY CHECK>

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

Test Point	Rating or standard	Remark						
TR407 EMITTER	+12V ± 0.5V	Make sure that AC line voltage comes within <table><tr><th>Models</th><th>AC line voltage</th></tr><tr><td>U, C</td><td>120V ± 10%</td></tr><tr><td>A</td><td>240V ± 10%</td></tr></table>	Models	AC line voltage	U, C	120V ± 10%	A	240V ± 10%
Models	AC line voltage							
U, C	120V ± 10%							
A	240V ± 10%							
TR409 COLLECTOR	−12V ± 0.5V							
TR413 EMITTER	+9V ± 0.5V							
TR410 EMITTER	+6.3V ± 0.5V							
TR412 COLLECTOR	+6.3V ± 0.5V							
TR428 EMITTER	−5.8V ± 0.5V							
TR405 EMITTER	+6.4V ± 0.5V							
M+	VOLUME UP +6V ± 1V							
M−	VOLUME DOWN +6V ± 1V							
FB	At FM reception mode +12V ± 1V							
	At AM reception mode 0V							
AB	At FM reception mode 0V							
	At AM reception mode +12V ± 1V							

● IDLING CURRENT ADJUSTMENT

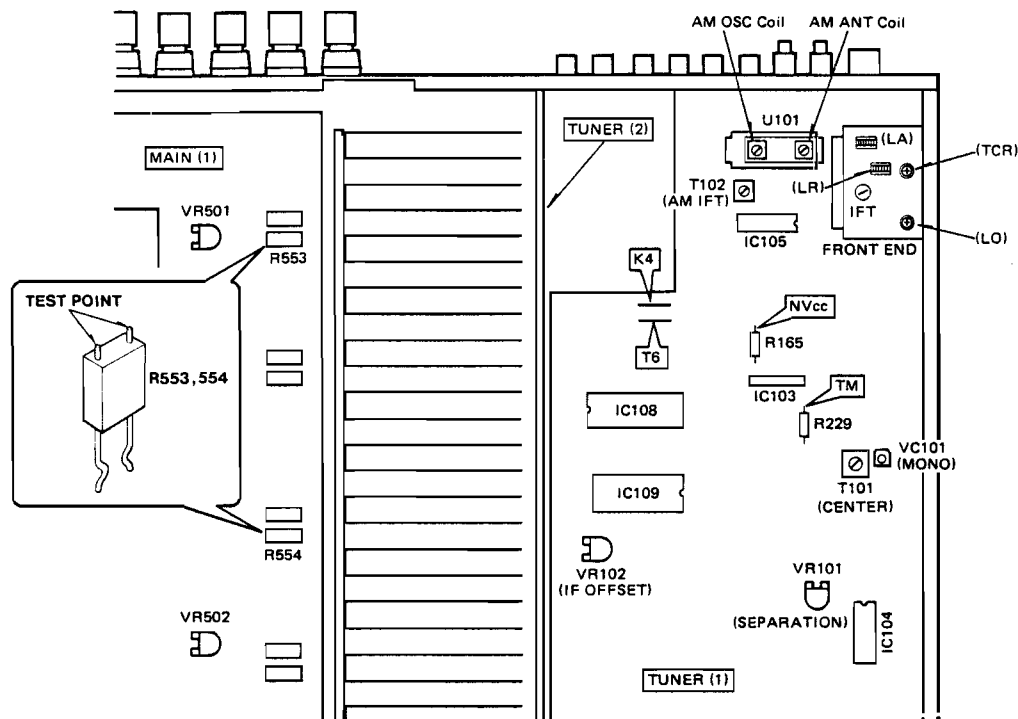
After the power has been turned on, age about 2 minutes in no signal and non-loaded condition. Switch off the AUTO CLASS A switch. Adjust VR501 (Lch) and VR502 (Rch) so that the voltage across the terminals of R553 (Lch) and R554 (Rch) comes to $10\text{mV} \pm 1\text{mV}$ DC.

● CONFIRMATION OF AUTO CLASS A OPERATION

After the AUTO CLASS A has been turned on, age about 1 minute in no signal and non-loaded condition. Confirm that the voltage across the terminals of R553 (Lch) and R554 (Rch) comes to $60\text{mV} \pm 30\text{mV}$ DC.

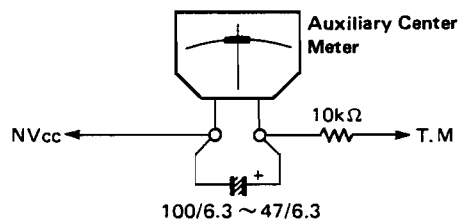
Item to be Adjusted	Test Points	Adjustment Points	Rating
Idling Current	Lch: Across the terminals of R553 Rch: Across the terminals of R554	VR501 (Lch) VR502 (Rch)	$10\text{mV} \pm 1\text{mV}$ DC.
AUTO CLASS A Operation		—	$60\text{mV} \pm 30\text{mV}$ DC.

● TEST POINT



< FM TUNER SECTION >

- Use 19kHz L.P.F. to measure the REC OUT.
- On step 1 and 2 connect an auxiliary center meter (ji00036 or similar) to confirm the best tuned point.
- 100% modulation means that the Frequency Deviation is $\pm 75\text{kHz}$.



Step	Item to be Adjusted	Connection terminal	Instrument required	Adjustment locations	Adjustment method	Rating or standard	Remarks
1	Discriminator balance	NVcc ~ T.M	Auxiliary center meter	T101 (CENTER)	Adjust the pointer of the auxiliary center meter point to "0" at detuned point.		After the adjustment of step 1 to 5, confirm it again.
2	Confirmation of station center set	300Ω FM ANT	FM SG [98MHz $\pm$ 1kHz 70dBμ (75.2dBf) MONO 1kHz 100% MOD]	TUNING key → UP or DOWN	Confirm that the auxiliary center meter deflects to "0" when tuned to signal of FM SG.		
		NVcc ~ T.M	Auxiliary center meter				
3	Monaural distortion	300Ω FM ANT	FM SG [98MHz $\pm$ 1kHz 70dBμ (75.2dBf) MONO 100Hz 100% MOD]	VC101 (MONO)	Reduce distortion to minimum.	Less than -66dB	Reception should be made in LOCAL mode.
		REC OUT L, R	DIST. M L.P.F.				
4	Stereo distortion	300Ω FM ANT	FM SG, SSG [98MHz $\pm$ 1kHz 70dBμ (75.2dBf) STEREO L, R 1kHz, 100% MOD]	Front end IFT ST indicator	Same as step 3	Less than -56dB	Confirm that ST indicator lights up. Reception should be made in LOCAL mode.
		REC OUT L, R	DIST. M L.P.F.				
5	Separation	300Ω FM ANT	FM SG, SSG [98MHz $\pm$ 1kHz 70dBμ (75.2dBf) STEREO L, R 1kHz, 100% MOD]	VR101 (SEPARATION)	Reduce output level to minimum.	Separation more than 40dB	
		REC OUT L, R	ACVM L.P.F.				

Step	Item to be Adjusted	Connection terminal	Instrument required	Adjustment locations	Adjustment method	Rating or standard	Remarks
6	Confirmation of Full-scale signal quality level	300Ω FM ANT	FM SG, SSG [98MHz ± 1kHz 70dBμ (75.2dBf) STEREO L, R 1kHz, 100% MOD]	SIGNAL QUALITY indicator	Confirm that all signal quality indicators light up.		Confirm that all signal quality indicators goes out at detuned point.
7	IF Offset	300Ω FM ANT K4 ~ T6	FM SG. [98MHz ± 1kHz 70dBμ (75.2dBf) STEREO L, R 1kHz 30% MOD] Short	VR102 (IF OFFSET) Frequency display	By shorting across terminals K4 and T6, the frequency display shifts 1 digit. Therefore, adjust VR102 until 10kHz digit becomes 9 or 0.		After adjustment open across K4 and T6.
8	Confirmation of auto search reception	300Ω FM ANT	FM SG [98MHz ± 1kHz 20dBμ (25.2dBf) MONO 1kHz 100% MOD]	TUNING key UP or DOWN	Confirm that auto search reception is possible with the tuning key.		Confirm that muting is performed at auto reception.

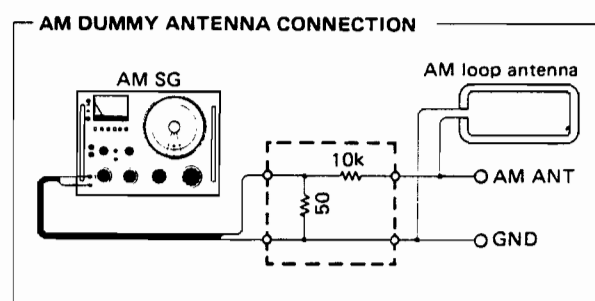
Note: $X \text{ dB}\mu = X + 5.2\text{dB}\mu\text{f}$

- Shorting K4 and T6 while set at FM will result in automatic memory of each preset from P1/P9 to P9/P16 as given in the right table. This is convenient when making an adjustment.

P1/P9	P2/P10	P3/P11	P4/P12	P5/P13
AM 630kHz	AM 1080kHz	AM 1440kHz	FM 87.5MHz	FM 95.1MHz
P6/P14	P7/P15	P8/P16		
FM 98.1MHz	FM 101.5MHz	FM 108.0MHz		

< AM TUNER SECTION >

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



Step	Item to be Adjusted	Connection terminal	Instrument required	Adjustment locations	Adjustment method	Rating or standard
1	AM IFT	AM ANT	AM SG AM dummy antenna [630kHz ± 0.1kHz 50dBμ 400Hz, 30% MOD]	T102	Adjust T102 to maximize detector output.	
		REC OUT	ACVM			
2	Confirmation of sensitivity	AM ANT	AM SG AM dummy antenna [630kHz ± 0.1kHz 1080kHz ± 0.1kHz 1440kHz ± 0.1kHz 400Hz, 30% MOD]	PRESET STATION key P1/P9 P2/P10 P3/P11	Obtain AM SG output level where distortion become 10%.	Less than 58dBμ
		REC OUT	ACVM DST. M.			
3	Confirmation Full-scale signal quality level	AM ANT	AM SG. AM dummy antenna [1080kHz ± 0.1kHz 90dBμ 400Hz, 30% MOD]	PRESET STATION key P2/P10 SIGNAL QUALITY indicator	Confirm that all signal quality indicators light up.	
4	Confirmation of auto search reception	AM ANT	AM SG AM dummy antenna [1080kHz ± 0.1kHz 60dBμ 400Hz, 30% MOD]	TUNING key UP or DOWN	Confirm the auto search reception with the tuning key	

< DIGITAL CONTROL SECTION >

Step	Confirmation item	Connection terminal	Instrument required	Operation key	Confirmation method
1	Preset memory	300Ω FM ANT	FM SG, SSG 98MHz ± 1kHz 70dBμ (75.2 dBf) STEREO, L, R 1kHz, 100% MOD	FUNCTION key TUNING MODE key TUNING key (UP or DOWN) MEMORY key PRESET STATION key	① Receive FM 98MHz by means of auto search. ② Set P1-P8 → P1-P8 indicator lights. ③ Press MEMORY key → MEMORY indicator flashes about 5 seconds. ④ Press P1 → MEMORY indicator goes OFF P1 of PRESET STATION indicator lights.
		AM ANT	AM SG AM dummy antenna 1080kHz ± 0.1kHz 80dBμ 400Hz, 30% MOD	P1-P8/P9-P16	⑤ Receive AM 1080kHz ⑥ Press MEMORY key → MEMORY indicator flashes about 5 seconds. ⑦ Press P2 → MEMORY indicator goes OFF P2 of PRESET STATION indicator lights.
		300Ω FM ANT AM ANT	FM SG, SSG AM SG AM dummy antenna		⑧ Press P1 and P2 and check that content is read out. → P1 and P2 of PRESET STATION indicator lights. ⑨ Set P9-P16 → P9-P16 indicator flashes. ⑩ Press MEMORY key → MEMORY indicator flashes. ⑪ Press P9 → MEMORY indicator goes OFF. P9-P16 indicator lights. P9 indicator lights. ⑫ Press P9 and check that content is read out.
2	Tuning mode	Same as step 1	Same as step 1	FUNCTION key TUNING MODE key TUNING key (UP or DOWN) PRESET STATION key P1, P2	Tune to FM 98MHz and AM 1080kHz, and check that when receiving MAN'L/MONO, FM reception become forced mono TUNING MODE indicator → Goes out ST indicator → Goes out Check that tuning operation stops when tuned while AUTO searching. TUNING MODE indicator → lights up ST indicator → lights up
3	Fine Tuning	Same as step 1	Same as state 1	PRESET STATION key P1, P2 FINE TUNING key (+ or -)	① Press P1 and content is read out (FM) ② Press FINE TUNING key → FINE TUNING indicator lights. ③ Press FINE TUNING key and check that 10kHz step search. ④ Press P2 and content is read out (AM) ⑤ Press FINE TUNING key and check that 1kHz step search.
4	Receiving Mode			PRESET STATION key P1 RECEIVING MODE key	① Press P1 and content is read out (FM) ② Press RECEIVING MODE key → The following 3 states are switched and each indicator lights up. → AUTO → DX → LOCAL →
5	Last channel memory			POWER key	① Read out P1. ② Turn OFF POWER key. ③ Turn ON POWER key after 5 seconds. ④ P1 content should come on. P1 of PRESET STATION indicator lights.

LSI DATA

● IC109 : LC7210

This is the CMOS LSI utilized to tune the CSL (Computer Servo Lock) tuning system for FM/AM radio which has realized stable station selection by PLL (Phase Locked Loop) synthesizer, precise automatic station search (applicable to all areas of the world and multiple bands) by SL² (Signal Locked Loop) voltage synthesizer, and optimum tuning point reception by AFC operation.

When combined with a prescaler ($\div 100$), this LSI can be controlled by a 4-bit microcomputer in the controller.

The functions are:

- SL² auto search-control
- PLL control
- Analog switch for S-curve AFC
- Station-originated frequency counter
- Data generation for FM band IF offset adjustment (5 bits)

Terminal No.	Description	I/O	Function
1	Xin	IN	Oscillation terminals. By connecting Quartz across Xin and Xout, and load capacity across both terminals and Vss, basic clock signal is generated (32kHz).
2	Xout	OUT	
3	Vss	—	Ground terminal
4	DI/DO	IN	Pull-up feature. Input terminal which controls whether data terminal ($D_0 \sim 3$) signal is input mode (DI/DO = 1) or output mode. (DI/DO = 0).
5	STB	IN	Pull-up feature. Determines the timing of internal latch, FF clock pulse and set/reset signal which are determined by control input ($C_0 \sim 3$).
6	D_3	I/O	I/O terminals. Push-pull output. Transfers (DI/DO = 1) data to internal data bus (4 bits) or outputs the contents of internal data bus.
7	D_2		
8	D_1		
9	D_0		
10	C_3	IN	Pull-up feature. Input used to create signal which specifies which logic is to be connected with internal data bus.
11	C_2		
12	C_1		
13	C_0		
14	M/L	OUT	Outputs "1" only when received band is AM NC.
15	PLL	OUT	Push-pull. Outputs "1" while PLL operation is made.
16	Sout	OUT	Tri-state. Connected with push-pull output and analog switch. ● PLL mode: Charge pump output can be obtained. ● SEARCH mode: Auto search output can be obtained. ● AFC mode: Conducts to Sin terminal via analog switch. High impedance state in other modes
17	$\overline{SD}$	IN	Controls whether reception is made by SL ² or PLL when FM is received.
18	Sin	IN	Connected with analog switch or comparator input. ● AFC mode: Conducts to Sout terminal via analog switch and makes reception by AFC. ● AUTO SEARCH mode: Discriminates S signal between SH and SL via wind comparator and uses as input which controls search speed limit and stop.
19	AFC	OUT	Outputs "1" in AFC mode. Outputs "0" in other than AFC mode.
20	SMK	IN	Prohibits search stop and speed control by SH and SL in AUTO SEARCH mode ("1"). Controls when "0" is input.
21	F/A	OUT	Band data output terminal. Outputs "1" in FM mode.
22	Ain	IN	AM (FM) local oscillator frequency input terminal. Pull-down transistor is turned on in FM mode.
23	Fin	IN	1/100 dividing output of AM (FM) local oscillator frequency is input. Pull-down transistor is turned off in FM mode in which reception is not made by AFC.
24	VDD	—	Power source +5V
25	A/D	IN	Input used to generate data for compensating the shift of center frequency of FM IF filter.
26	Vref	—	Power source for setting wind comparator level (Sin) and power source for A/D converter ladder network of FM fine.
27	$\overline{PSC}$	OUT	Outputs "0" when PLL or counter is operated in FM mode. Outputs "1" in other cases (other than when reception is made in FM mode, and other than in FM mode).
28	LOC	I/O	Detects the locking of CSL operation, connected with CR integration circuit. Judges as LOCK state when "1" is input and as UNLOCK state when "0" is input.

● IC108: CSL Controller V4.0 695 (LC6510C-695)

1-chip type 4-bit microcomputer which incorporates 4096 x 8 bit ROM (for programming) and 256 x 4 bit RAM (for data memory)

Terminal No.	Description	I/O	Function
1	PA ₂ AWAM9K	IN	Destination symbol. 42 Pin = "1" : U model AM in 10kHz increments.
2	PA ₃ REM REQ	IN	Destination symbol. REM REQ = "1" : Remote Control Request
3	PB ₀ K1	IN	Key matrix input. Judges the switches 1 to 17.
4	PB ₁ K2	IN	
5	PB ₂ K3	IN	
6	PB ₃ K4	IN	
7	PC ₀ C0	OUT	Control output. Sepcifies which logic of LC7210 is connected with data bus.
8	PC ₁ C1	OUT	
9	PC ₂ C2	OUT	
10	PC ₃ C3	OUT	
11	PD ₀ D0	I/O	Data bus. Sends and receives data to and from LC7210.
12	PD ₁ D1	I/O	
13	PD ₂ D2	I/O	
14	PD ₃ D3	I/O	
15	PE ₀ STB	OUT	Strobe output.
16	PE ₁ DI/DO	OUT	Specifies the direction of I/O of data bus.
17	PE ₂ MUT	OUT	Muting output. +4.5V (reference value) in MUTING mode.
18	PE ₃ A/D	OUT	Signal Quality/IF Offset select. Signal Quality at "1" IF Offset at "0"
19	RES	IN	Reset input. +5V in normal condition.
20	TEST	—	
21	V _{ss}	—	Power ground.
22	OSC1	IN	Terminals for clock oscillating circuit.
23	OSC2	OUT	
24	PF ₀ F	OUT	Display, segment output.
25	PF ₁ G	OUT	
26	PF ₂ F	OUT	
27	PF ₃ E	OUT	
28	PG ₀ D	OUT	
29	PG ₁ C	OUT	
30	PG ₂ B	OUT	
31	PG ₃ A	OUT	
32	PH ₀ TA	OUT	Display, digit output
33	PH ₁ TB	OUT	
34	PH ₂ TC	OUT	
35	PH ₃ Mute	OUT	Meter Mute Control
36	PI ₀ DX	OUT	DX Mode Control
37	PI ₁ MONO	OUT	Mono Mode Control
38	HOLD	IN	Hold mode demand input terminal.
39	INT	—	INTVAL
40	V _{dd}	—	Power source +5V.
41	PA ₀ U	IN	Destination symbol.
42	PA ₁ G	IN	

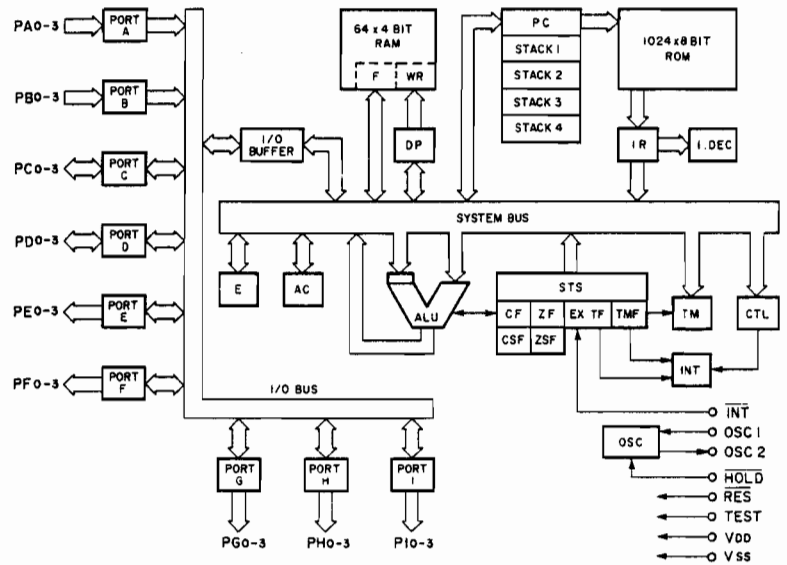
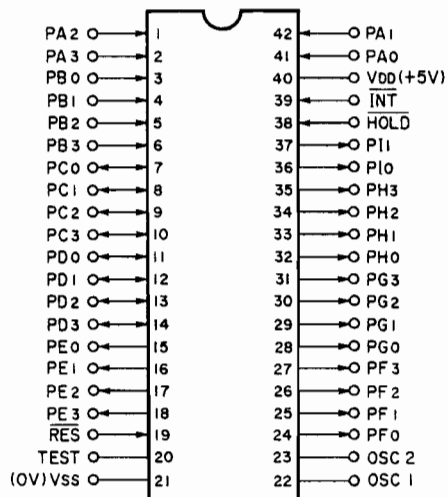
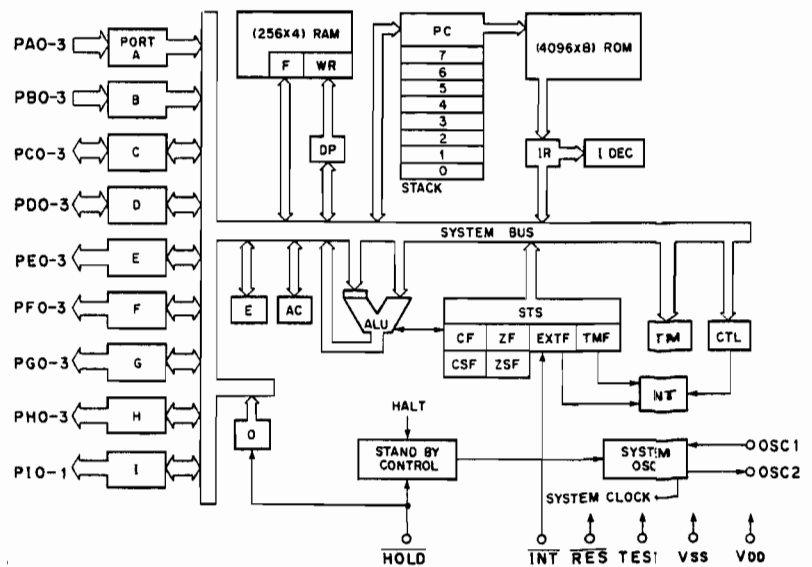
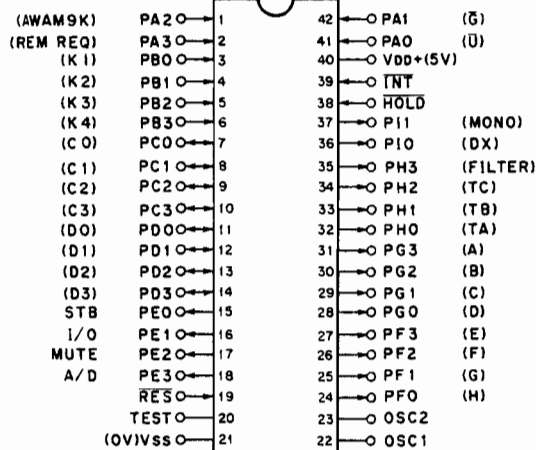
41 pin	0	1
41 pin	J	U
1	G	W

● IC401: A. V Controller V1.0 696 (LC6505C-696)

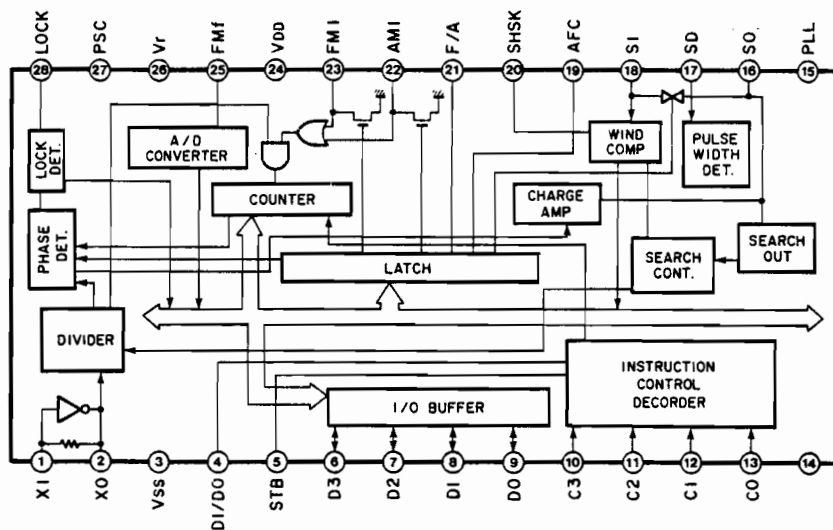
1-chip type 4-bit microcomputer which incorporates 1024 x 6 bit ROM (for programming) and 64 x 4 bit RAM (for data memory)

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

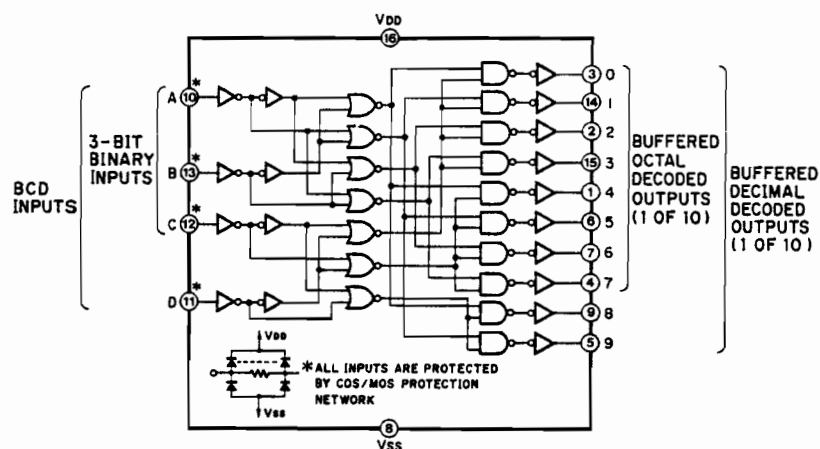
IC BLOCK

IC401 : LC6505C-696

IC108 : LC6510C-695


IC109 : LC7210

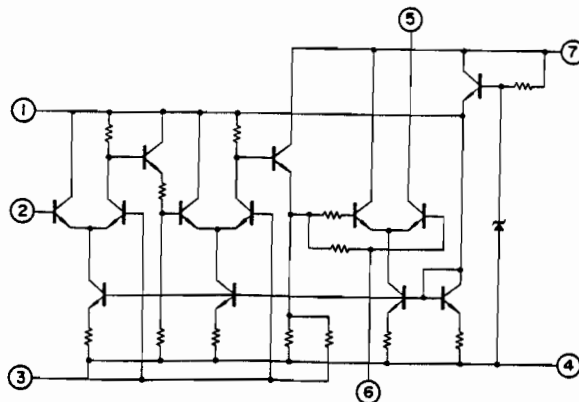


IC107 : TC4028BP or BU4028B

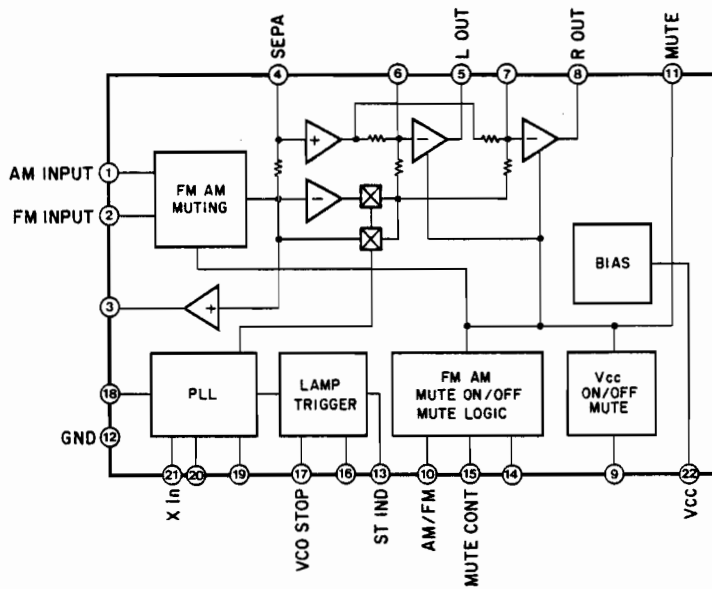


Data Table

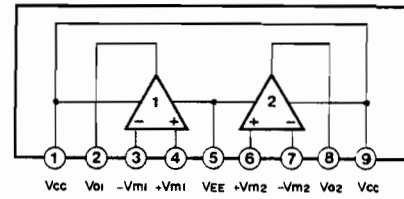
D	C	B	A	0	1	2	3	4	5	6	7	8	9
0	0	0	0	1	0	0	0	0	0	0	0	0	0
0	0	0	1	0	1	0	0	0	0	0	0	0	0
0	0	1	0	0	0	1	0	0	0	0	0	0	0
0	0	1	1	0	0	0	0	1	0	0	0	0	0
0	1	0	0	0	0	0	0	0	1	0	0	0	0
0	1	0	1	0	0	0	0	0	0	1	0	0	0
0	1	1	0	0	0	0	0	0	0	0	1	0	0
0	1	1	1	0	0	0	0	0	0	0	0	1	0
1	0	0	0	0	0	0	0	0	0	0	0	0	1
1	0	0	1	0	0	0	0	0	0	0	0	0	1
1	0	1	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	1	0	0	0	0	0	0	0	0	0	0
1	1	1	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	0	0	0	0	0	0	0	0	0	0

IC101, 102 : μ PC577H (E, F)

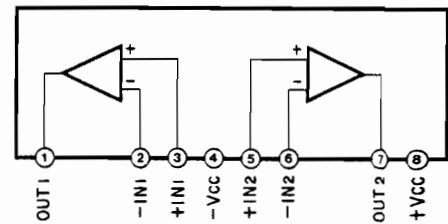
IC104 : LA3400



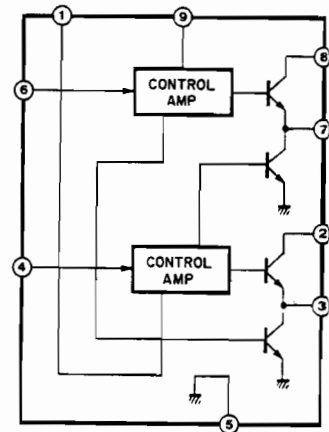
IC103 : NJM4558S or BA715
IC302, 303, 407: NJM4558S (F)



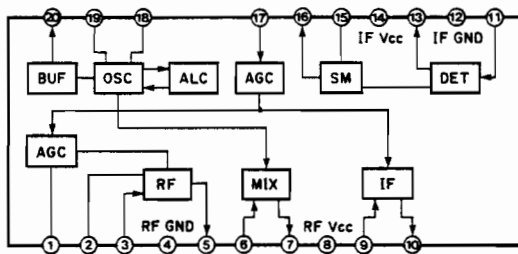
IC301 : NJM4560S or BA4561
IC302, 303, 407: M5218L (V)
IC501 : M5220L



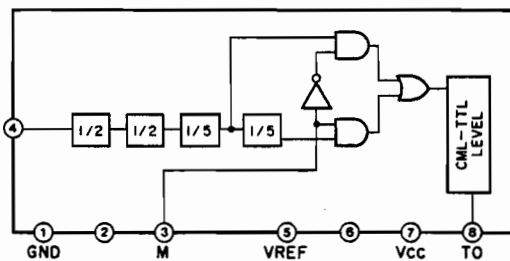
IC402 : M54542



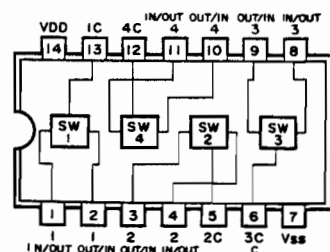
IC105 : LA1245



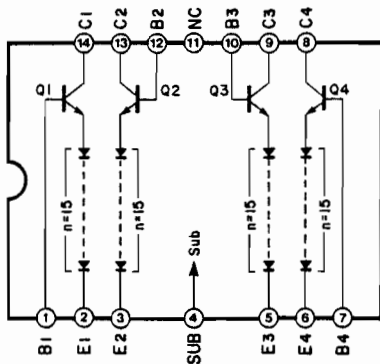
IC106 : M54459L



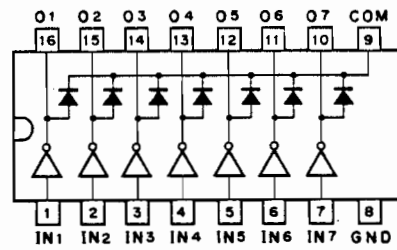
IC404 ~ 406 : μ PD4066BC or LC4066B
IC403 : LC4966



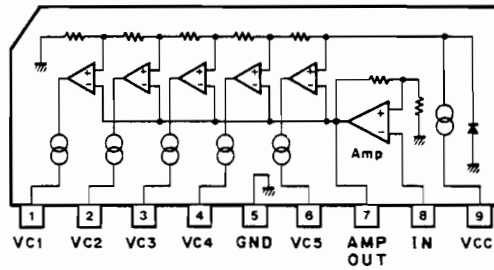
IC502 : M51010P



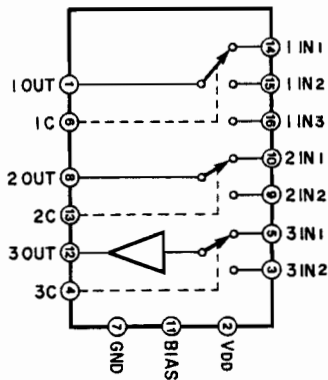
IC1 : M54526P, LB1234 or BA12004



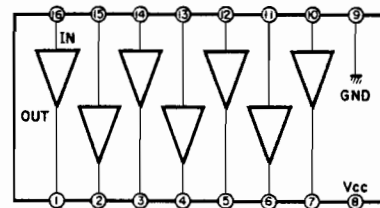
IC2 : LB1413



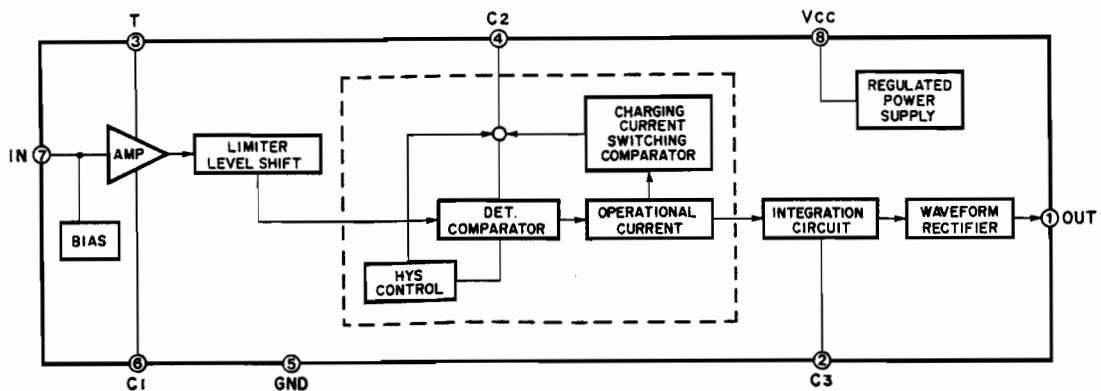
IC503 : M51320P



IC3 : BA618



IC4 : BA6340

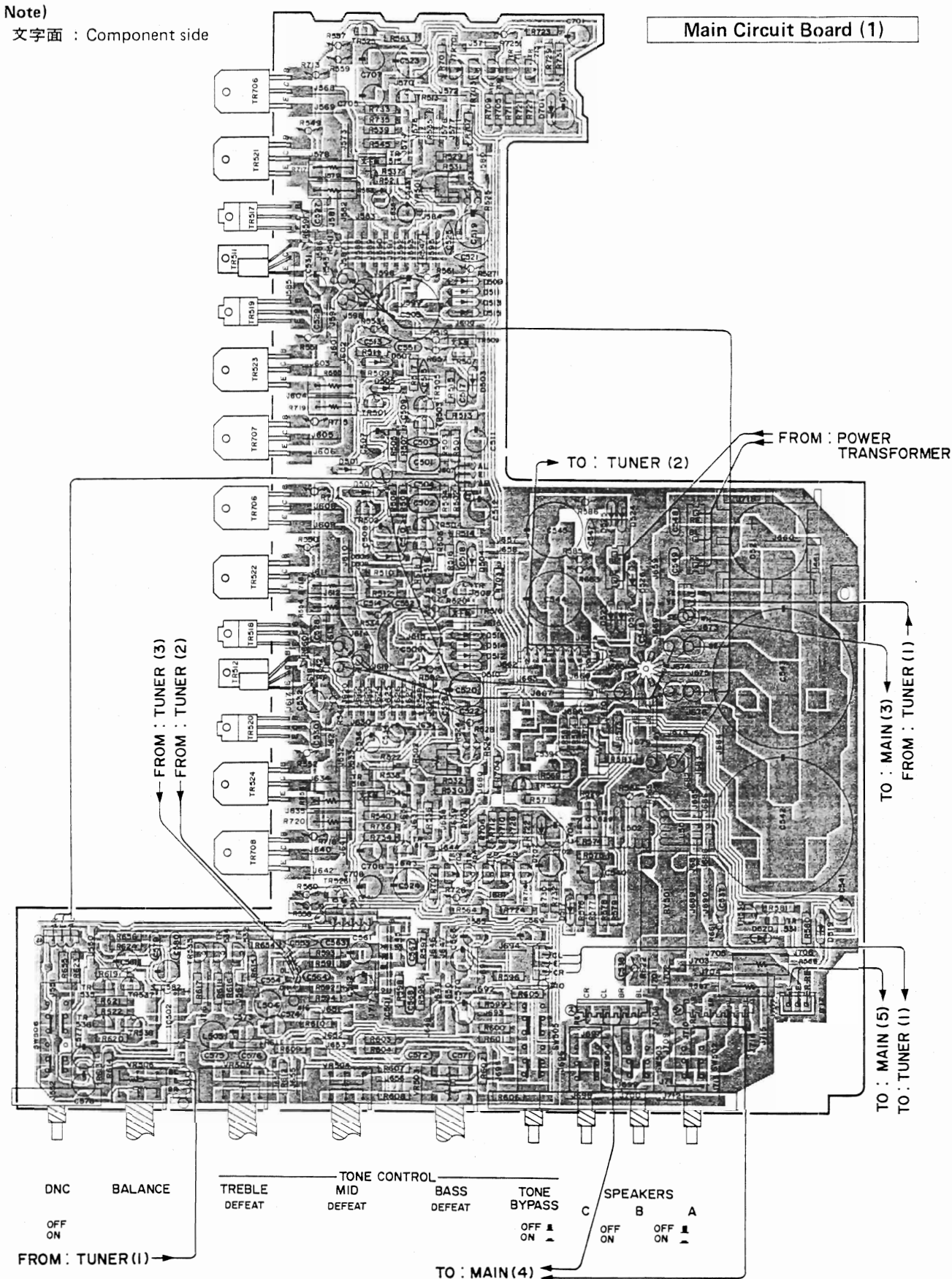


PRINTED CIRCUIT BOARD(Pattern side)

Note)

文字面 : Component side

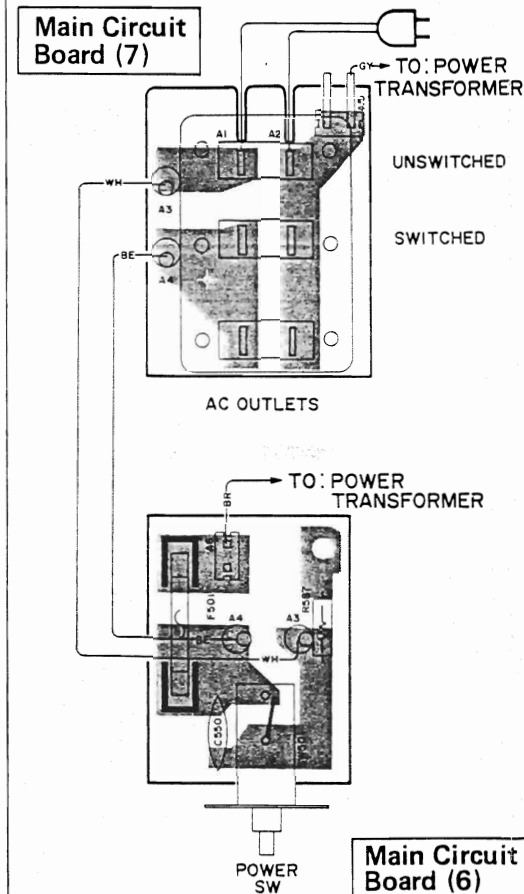
Main Circuit Board (1)



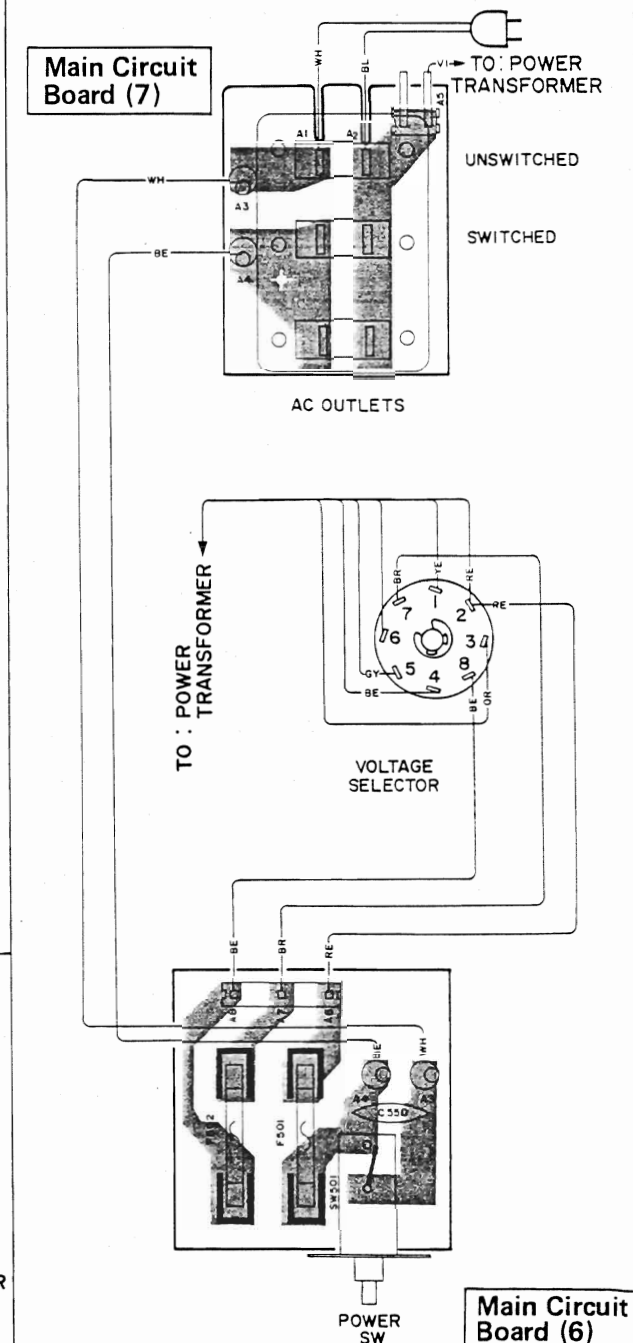
Note: * marked

	R	U	C	A	J
F501	10A 250V	10A 250V	10A 250V	T4.0A 250V	10A 250V
F502	T5.0A 250V	OPEN	OPEN	OPEN	OPEN
R587	OPEN	1/2P 2.2M	1/2P 2.2M	OPEN	OPEN
C703, 704	0.47/50	0.47/50	0.47/50	0.47/50	4.7/50

U.S.A. & Canadian models

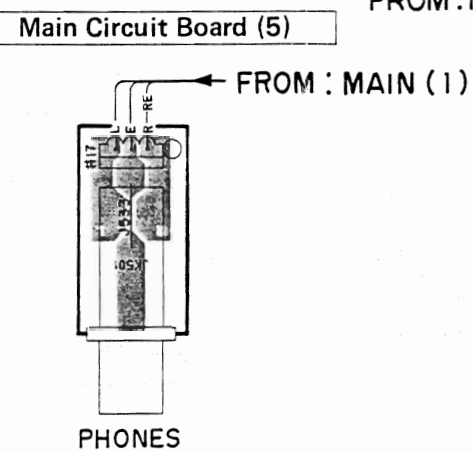
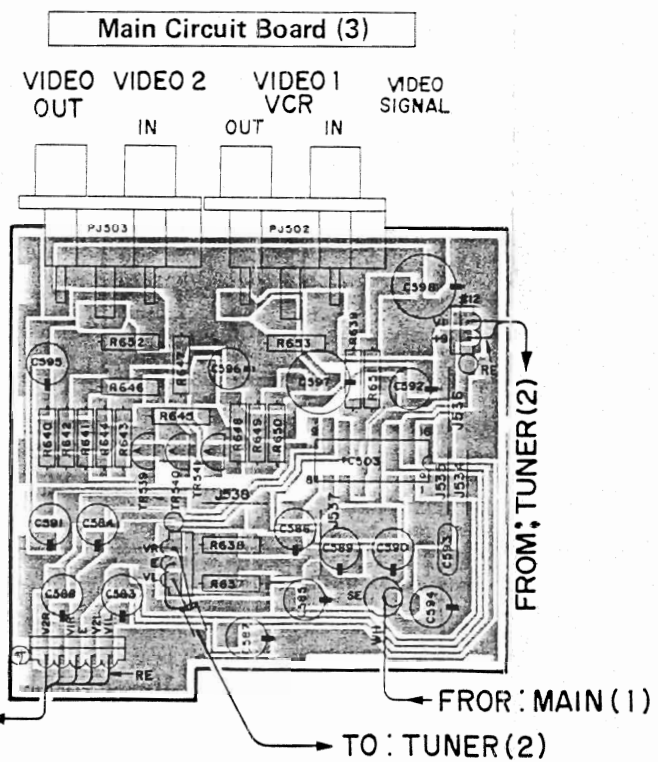
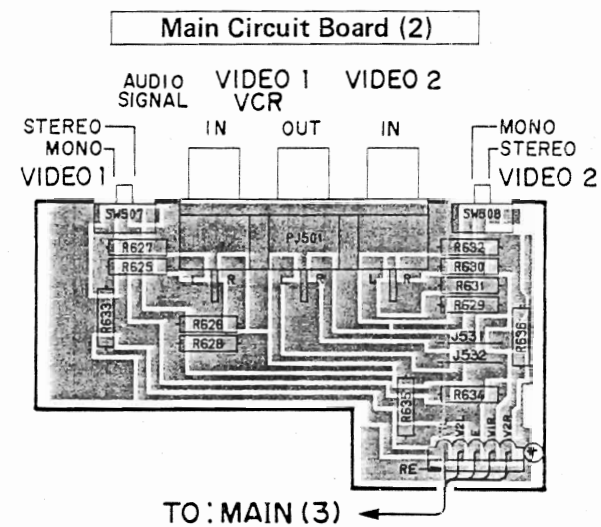
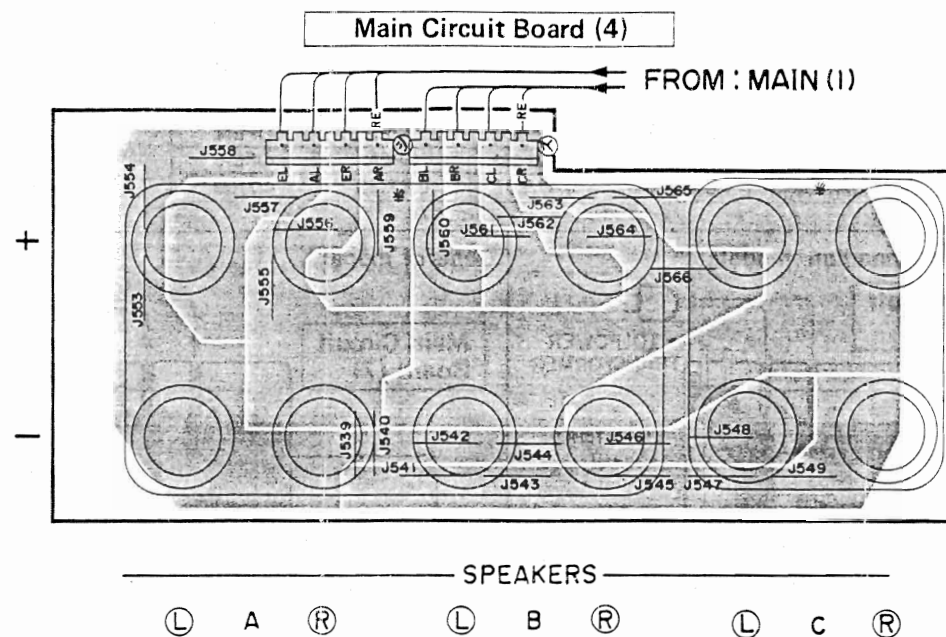


General model

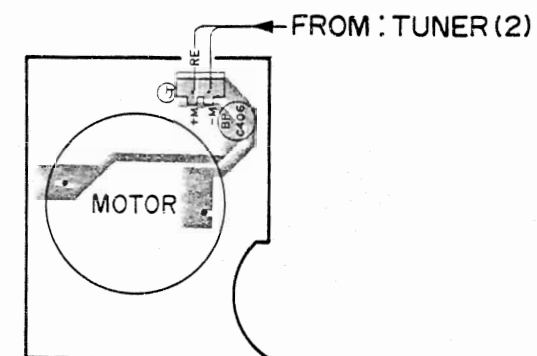


Voltage	Terminal No.
110V	5-4 2-1
120V	6-5 3-2
220V	7-1 8-4
240V	7-6 8-3

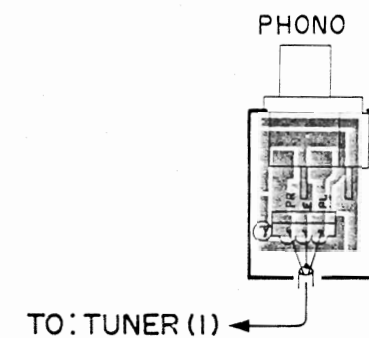
PRINTED CIRCUIT BOARD(Pattern side)



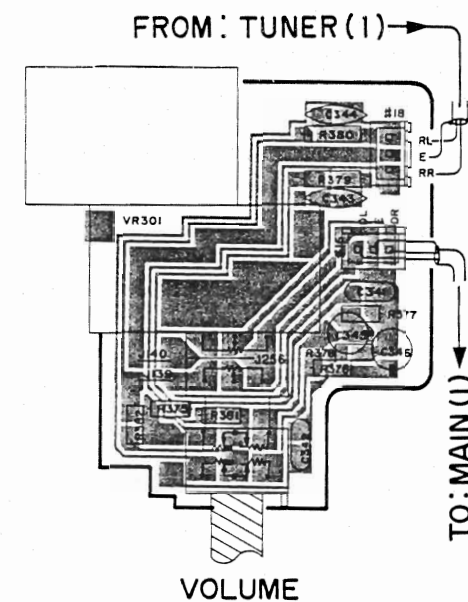
Tuner Circuit Board (4)



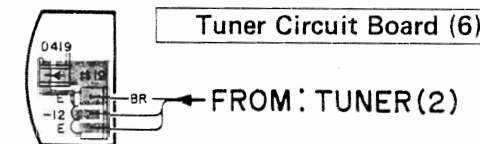
Tuner Circuit Board (5)



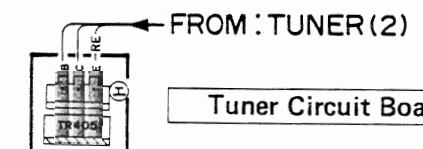
Tuner Circuit Board (3)



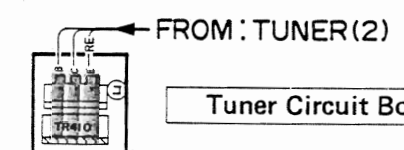
Tuner Circuit Board (6)



Tuner Circuit Board (7)



Tuner Circuit Board (8)

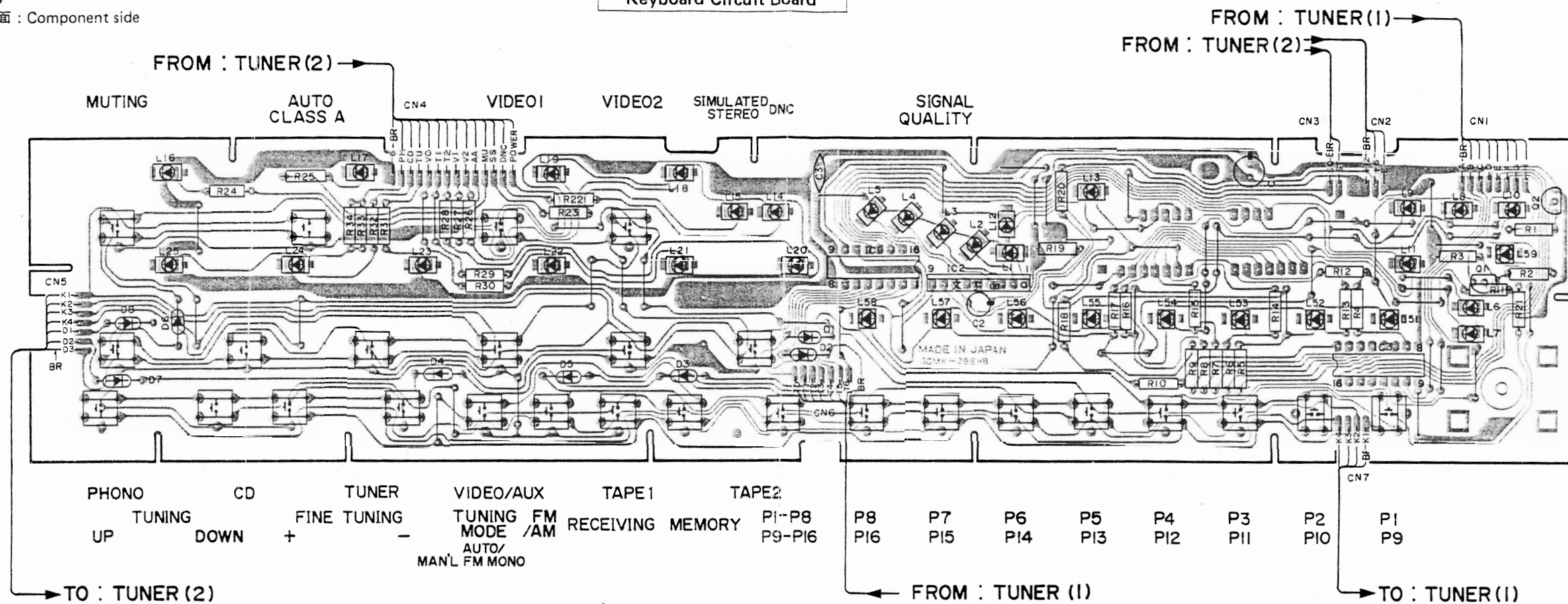


PRINTED CIRCUIT BOARD(Pattern side)

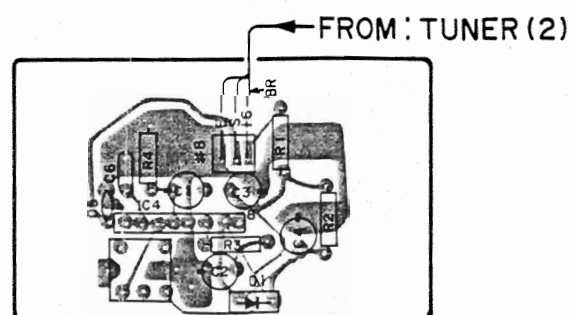
Note)

文字面 : Component side

Keyboard Circuit Board

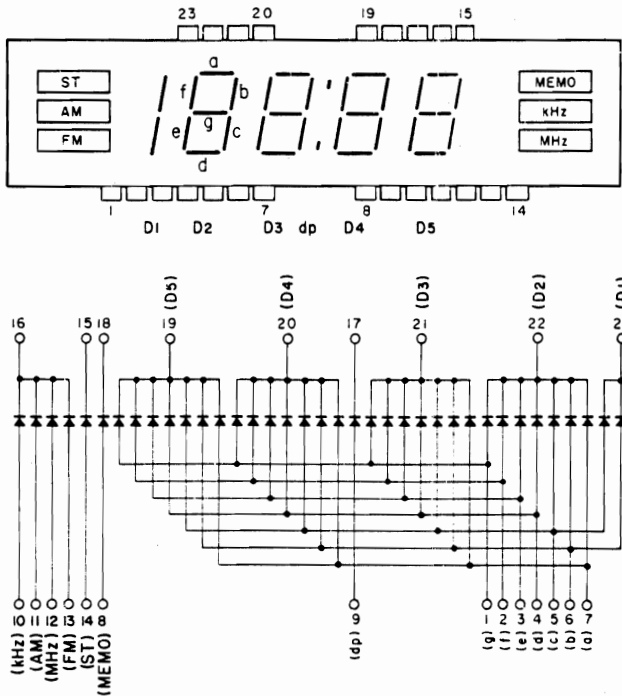


Remote Control Circuit Board



CIRCUIT DATA

Frequency Display



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

MATRIX OF DISPLAY (Frequency Display, L6 ~ L13, L51 ~ L58)

IC108	A [31 Pin]	B [30 Pin]	C [29 Pin]	D [28 Pin]	E [27 Pin]	F [26 Pin]	G [25 Pin]	H [24 Pin]
IC107								
T6 [4 Pin]	D5 a	D5 b	D5 c	D5 d	D5 e	D5 f	D5 g	
T5 [7 Pin]	D4 a	D4 b	D4 c	D4 d	D4 e	D4 f	D4 g	
T4 [1 Pin]	D3 a	D3 b	D3 c	D3 d	D3 e	D3 f	D3 g	FM DOT
T3 [1 Pin]	D2 a	D2 b	D2 c	D2 d	D2 e	D2 f	D2 g	P9-16 (L7)
T2 [15 Pin]	LOCAL (L8)	D1 b	D1 c	AUTO RX (L9)	DX (L10)	AUTO (L11)		P1-8 (L6)
T1 [2 Pin]	P-1/9 (L51)	P-2/10 (L52)	P-3/11 (L53)	P-4/12 (L54)	P-5/13 (L55)	P-6/14 (L56)	P-7/15 (L57)	P8/16 (L58)
T0 [14 Pin]	MEMO	CSL (L12)	kHz	AM	MHz	FM		FINE (L13)

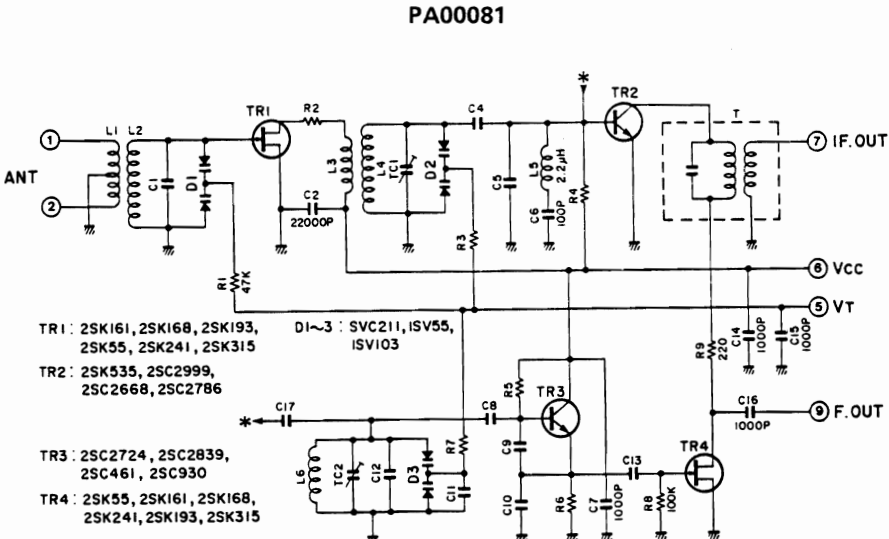
MATRIX OF INPUT KEY

IC107	T1 [2 Pin]	T2 [15 Pin]	T3 [1 Pin]	T4 [6 Pin]	D5 [7 Pin]	T6 [4 Pin]
IC108						
K1 [3 Pin]	P1/9	P5/13		UP	P1-8/ P9-16	
K2 [4 Pin]	P2/10	P6/14		DOWN	FM/AM	
K3 [5 Pin]	P3/11	P7/15	AUTO/ MAN'L	FINE UP	RECEIVING MODE	
K4 [6 Pin]	P4/12	P8/16	MEMORY	FINE DOWN		TEST (OFFSET)

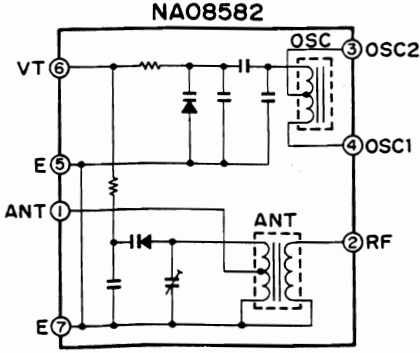
IC107 DATA TABLE

INPUT			OUTPUT						
TC [12 Pin]	TB [13 Pin]	TA [10 Pin]	T0 [14 Pin]	T1 [2 Pin]	T2 [15 Pin]	T3 [1 Pin]	T4 [6 Pin]	T5 [7 Pin]	T6 [4 Pin]
0	0	0	0	0	0	0	0	0	0
0	0	1	1	0	0	0	0	0	0
0	1	0	0	1	0	0	0	0	0
0	1	1	0	0	1	0	0	0	0
1	0	0	0	0	0	1	0	0	0
1	0	1	0	0	0	0	1	0	0
1	1	0	0	0	0	0	0	1	0
1	1	1	0	0	0	0	0	0	1

FRONT END PACK (PK101)

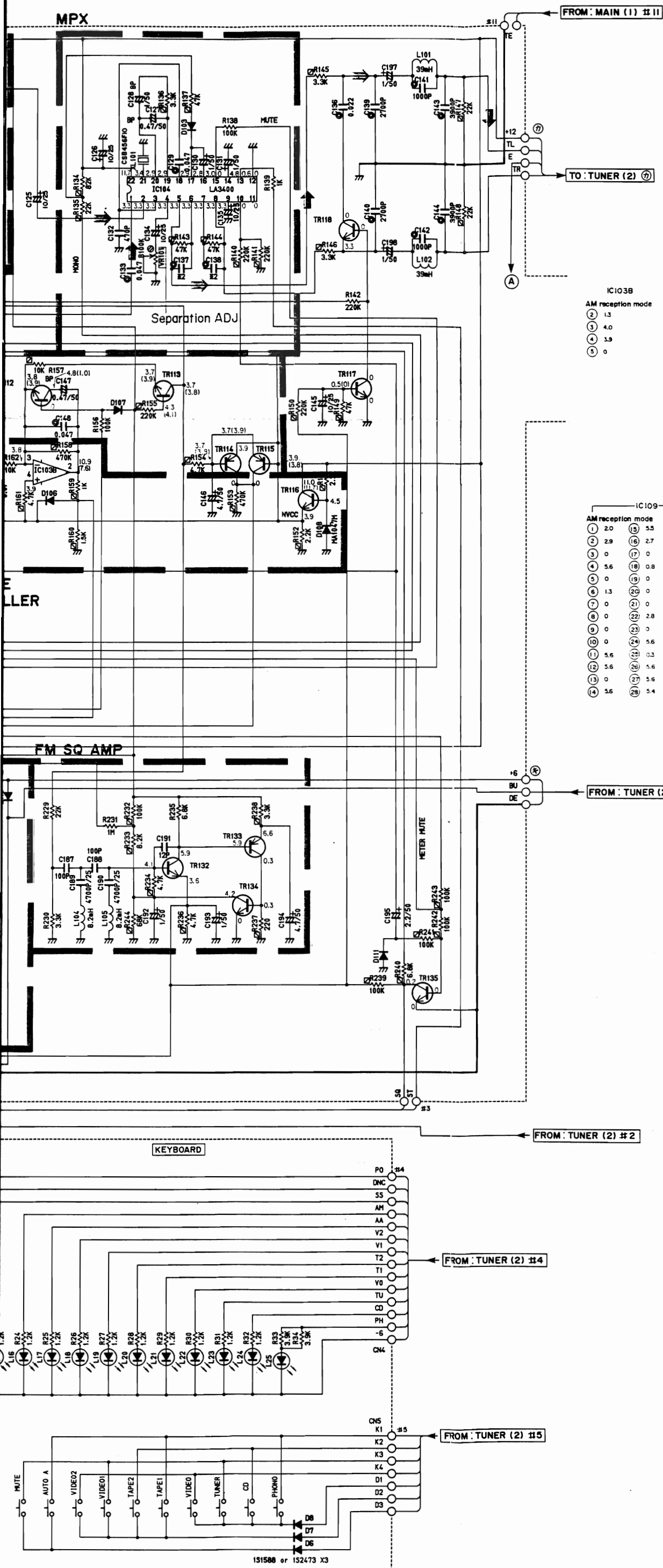


AM Coil Pack (U101)



The diagram illustrates a complex radio receiver circuit, divided into several functional sections:

- FM IF & DISCR. (Top Left):** This section handles the FM intermediate frequency and discrimination. It includes a tuner (T1) and various transistors (TR101, TR102, TR103, TR104, TR105, TR106, TR107, TR108, TR109, TR110, TR111, TR112, TR113, TR114, TR115, TR116, TR117, TR118, TR119, TR120, TR121, TR122, TR123, TR124, TR125, TR126, TR127, TR128, TR129, TR130, TR131, TR132, TR133, TR134, TR135, TR136, TR137, TR138, TR139, TR140, TR141, TR142, TR143, TR144, TR145, TR146, TR147, TR148, TR149, TR150, TR151, TR152, TR153, TR154, TR155, TR156, TR157, TR158, TR159, TR160, TR161, TR162, TR163, TR164, TR165, TR166, TR167, TR168, TR169, TR170, TR171, TR172, TR173, TR174, TR175, TR176, TR177, TR178, TR179, TR180, TR181, TR182, TR183, TR184, TR185, TR186, TR187, TR188, TR189, TR190, TR191, TR192, TR193, TR194, TR195, TR196, TR197, TR198, TR199, TR200, TR201, TR202, TR203, TR204, TR205, TR206, TR207, TR208, TR209, TR210, TR211, TR212, TR213, TR214, TR215, TR216, TR217, TR218, TR219, TR220, TR221, TR222, TR223, TR224, TR225, TR226, TR227, TR228, TR229, TR230, TR231, TR232, TR233, TR234, TR235, TR236, TR237, TR238, TR239, TR240, TR241, TR242, TR243, TR244, TR245, TR246, TR247, TR248, TR249, TR250, TR251, TR252, TR253, TR254, TR255, TR256, TR257, TR258, TR259, TR260, TR261, TR262, TR263, TR264, TR265, TR266, TR267, TR268, TR269, TR270, TR271, TR272, TR273, TR274, TR275, TR276, TR277, TR278, TR279, TR280, TR281, TR282, TR283, TR284, TR285, TR286, TR287, TR288, TR289, TR290, TR291, TR292, TR293, TR294, TR295, TR296, TR297, TR298, TR299, TR300, TR301, TR302, TR303, TR304, TR305, TR306, TR307, TR308, TR309, TR310, TR311, TR312, TR313, TR314, TR315, TR316, TR317, TR318, TR319, TR320, TR321, TR322, TR323, TR324, TR325, TR326, TR327, TR328, TR329, TR330, TR331, TR332, TR333, TR334, TR335, TR336, TR337, TR338, TR339, TR340, TR341, TR342, TR343, TR344, TR345, TR346, TR347, TR348, TR349, TR350, TR351, TR352, TR353, TR354, TR355, TR356, TR357, TR358, TR359, TR360, TR361, TR362, TR363, TR364, TR365, TR366, TR367, TR368, TR369, TR370, TR371, TR372, TR373, TR374, TR375, TR376, TR377, TR378, TR379, TR380, TR381, TR382, TR383, TR384, TR385, TR386, TR387, TR388, TR389, TR390, TR391, TR392, TR393, TR394, TR395, TR396, TR397, TR398, TR399, TR400, TR401, TR402, TR403, TR404, TR405, TR406, TR407, TR408, TR409, TR410, TR411, TR412, TR413, TR414, TR415, TR416, TR417, TR418, TR419, TR420, TR421, TR422, TR423, TR424, TR425, TR426, TR427, TR428, TR429, TR430, TR431, TR432, TR433, TR434, TR435, TR436, TR437, TR438, TR439, TR440, TR441, TR442, TR443, TR444, TR445, TR446, TR447, TR448, TR449, TR450, TR451, TR452, TR453, TR454, TR455, TR456, TR457, TR458, TR459, TR460, TR461, TR462, TR463, TR464, TR465, TR466, TR467, TR468, TR469, TR470, TR471, TR472, TR473, TR474, TR475, TR476, TR477, TR478, TR479, TR480, TR481, TR482, TR483, TR484, TR485, TR486, TR487, TR488, TR489, TR490, TR491, TR492, TR493, TR494, TR495, TR496, TR497, TR498, TR499, TR500, TR501, TR502, TR503, TR504, TR505, TR506, TR507, TR508, TR509, TR510, TR511, TR512, TR513, TR514, TR515, TR516, TR517, TR518, TR519, TR520, TR521, TR522, TR523, TR524, TR525, TR526, TR527, TR528, TR529, TR530, TR531, TR532, TR533, TR534, TR535, TR536, TR537, TR538, TR539, TR540, TR541, TR542, TR543, TR544, TR545, TR546, TR547, TR548, TR549, TR550, TR551, TR552, TR553, TR554, TR555, TR556, TR557, TR558, TR559, TR560, TR561, TR562, TR563, TR564, TR565, TR566, TR567, TR568, TR569, TR570, TR571, TR572, TR573, TR574, TR575, TR576, TR577, TR578, TR579, TR580, TR581, TR582, TR583, TR584, TR585, TR586, TR587, TR588, TR589, TR590, TR591, TR592, TR593, TR594, TR595, TR596, TR597, TR598, TR599, TR600, TR601, TR602, TR603, TR604, TR605, TR606, TR607, TR608, TR609, TR610, TR611, TR612, TR613, TR614, TR615, TR616, TR617, TR618, TR619, TR620, TR621, TR622, TR623, TR624, TR625, TR626, TR627, TR628, TR629, TR630, TR631, TR632, TR633, TR634, TR635, TR636, TR637, TR638, TR639, TR640, TR641, TR642, TR643, TR644, TR645, TR646, TR647, TR648, TR649, TR650, TR651, TR652, TR653, TR654, TR655, TR656, TR657, TR658, TR659, TR660, TR661, TR662, TR663, TR664, TR665, TR666, TR667, TR668, TR669, TR670, TR671, TR672, TR673, TR674, TR675, TR676, TR677, TR678, TR679, TR680, TR681, TR682, TR683, TR684, TR685, TR686, TR687, TR688, TR689, TR690, TR691, TR692, TR693, TR694, TR695, TR696, TR697, TR698, TR699, TR700, TR701, TR702, TR703, TR704, TR705, TR706, TR707, TR708, TR709, TR710, TR711, TR712, TR713, TR714, TR715, TR716, TR717, TR718, TR719, TR720, TR721, TR722, TR723, TR724, TR725, TR726, TR727, TR728, TR729, TR730, TR731, TR732, TR733, TR734, TR735, TR736, TR737, TR738, TR739, TR740, TR741, TR742, TR743, TR744, TR745, TR746, TR747, TR748, TR749, TR750, TR751, TR752, TR753, TR754, TR755, TR756, TR757, TR758, TR759, TR760, TR761, TR762, TR763, TR764, TR765, TR766, TR767, TR768, TR769, TR770, TR771, TR772, TR773, TR774, TR775, TR776, TR777, TR778, TR779, TR780, TR781, TR782, TR783, TR784, TR785, TR786, TR787, TR788, TR789, TR790, TR791, TR792, TR793, TR794, TR795, TR796, TR797, TR798, TR799, TR800, TR801, TR802, TR803, TR804, TR805, TR806, TR807, TR808, TR809, TR810, TR811, TR812, TR813, TR814, TR815, TR816, TR817, TR818, TR819, TR820, TR821, TR822, TR823, TR824, TR825, TR826, TR827, TR828, TR829, TR830, TR831, TR832, TR833, TR834, TR835, TR836, TR837, TR838, TR839, TR840, TR841, TR842, TR843, TR844, TR845, TR846, TR847, TR848, TR849, TR850, TR851, TR852, TR853, TR854, TR855, TR856, TR857, TR858, TR859, TR860, TR861, TR862, TR863, TR864, TR865, TR866, TR867, TR868, TR869, TR870, TR871, TR872, TR873, TR874, TR875, TR876, TR877, TR878, TR879, TR880, TR881, TR882, TR883, TR884, TR885, TR886, TR887, TR888, TR889, TR89



IC103B	
AM reception mode	
1	1.3
2	4.0
3	3.9
4	0

IC104	
Detuned mode	
1	3.3
2	3.3
3	3.3
4	3.3
5	3.3
6	3.3
7	3.3
8	3.3
9	3.3
10	0
11	0

IC109	
AM reception mode	
1	2.0
2	2.9
3	0
4	5.6
5	0
6	1.3
7	0
8	0
9	0
10	0
11	5.6
12	5.6
13	0
14	5.6

IC108	
AM reception mode	
1	0
2	5.6
3	0
4	0
5	0
6	0.5
7	0
8	0
9	0
10	4.5
11	1.4
12	1.4
13	5.5
14	0

IC108	
Detuned mode	
1	0
2	2.5
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0

IC108	
Detuned mode	
1	0
2	2.5
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0

CAPACITOR

REMARKS	PARTS NAME	
NO MARK	ELECTROLYTIC CAPACITOR	⌀
NO MARK	CERAMIC CAPACITOR	⊖
⊖	POLYESTER FILM CAPACITOR (Mylar)	⊖
⊖	POLYSTYRENE FILM CAPACITOR	⊖
⊖	MICA CAPACITOR	⊖
⊖	POLYPROPYLENE FILM CAPACITOR	⊖
●	SEMICONDUCTIVE CERAMIC CAPACITOR	●

RESISTOR

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

*This schematic diagram is for U.S.A and Canadian models. As the following parts and values differ from each model, so refer to the corresponding column.

	J	U.C	R	A
#1	PK101	PA00071	PA00081	
#2	C137,138	1000P ⊖	1500P ⊖	1 1000P ⊖
#3	J201	SHORT	OPEN	SHORT
#4	J211	SHORT	OPEN	OPEN
#5	SW101	OPEN	KA40169	OPEN

*NOTICE

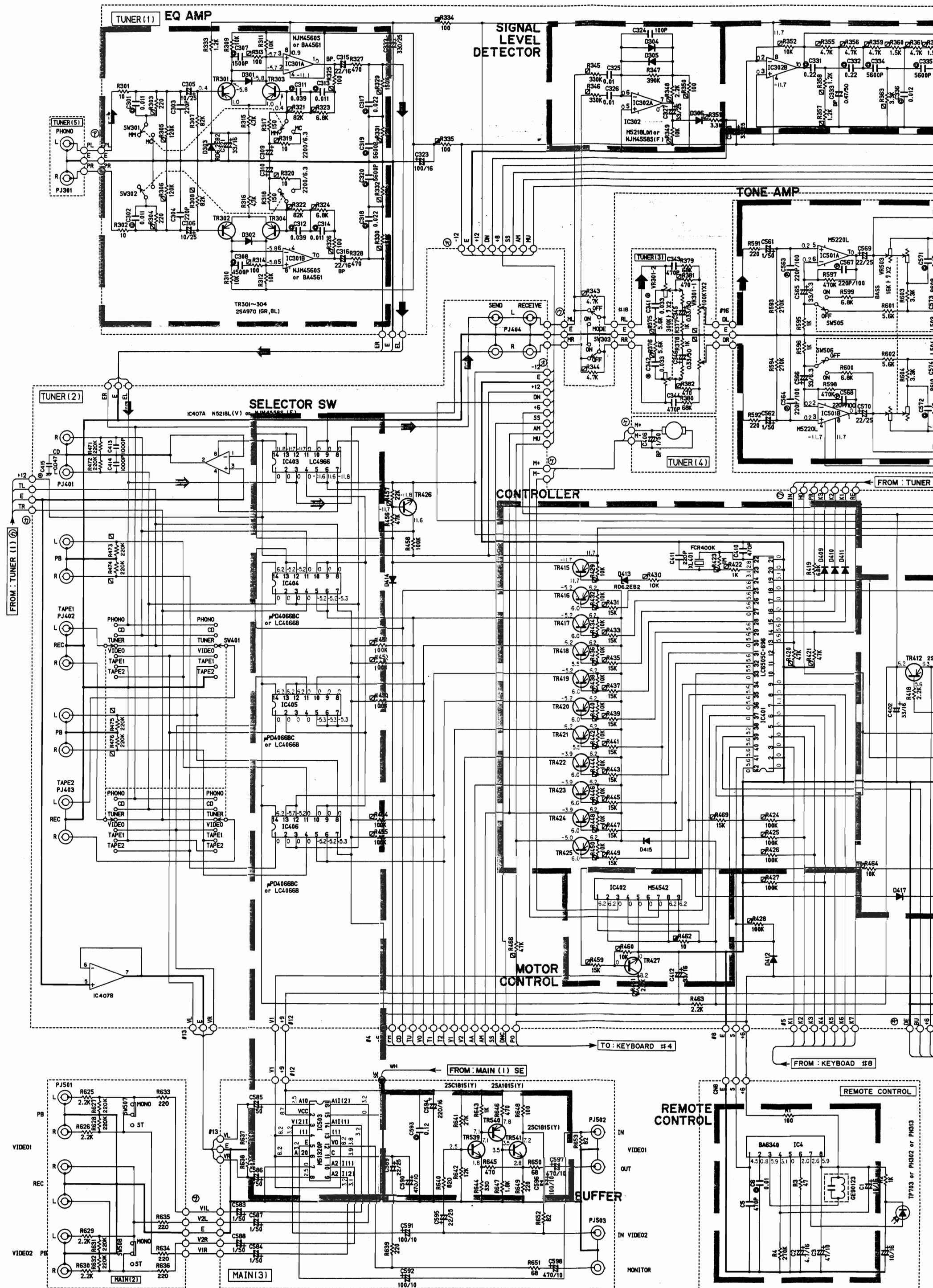
(U) U.S.A model
(C) Canadian model
(A) Australian model
(R) General model
(J) Japan model

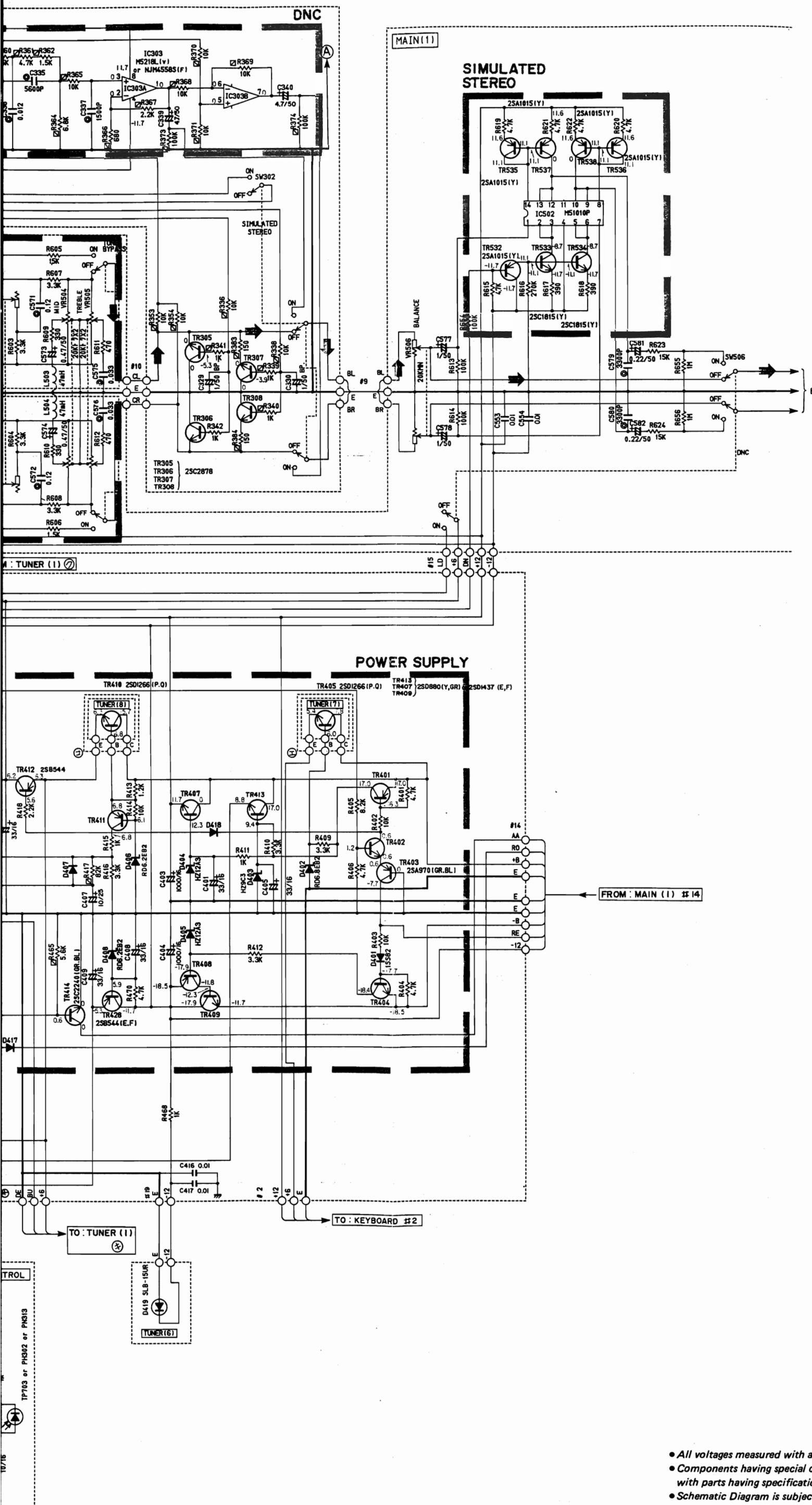
UNLESS OTHERWISE SPECIFIED :

DIODES ARE 1S1555 or 1S2473
PNP TRANSISTORS ARE 2SA933S(Q.R) or 2SA1015(Y) or 2SA1115(E.F) or 2SA1310(R.S.T)
NPN TRANSISTORS ARE 2SC1815(Y) or 2SC1740S(S.R) or 2SC2603(E.F) or 2SC3312(R.S.T)

- All voltages measured with a 10MS/VDC electric volt meter, under no-signal condition.
- The voltages are measured at FM reception mode. The voltages () are at detuned mode, but the voltages at TR109 ~ TR111 and IC105 are at AM reception model.
- 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.

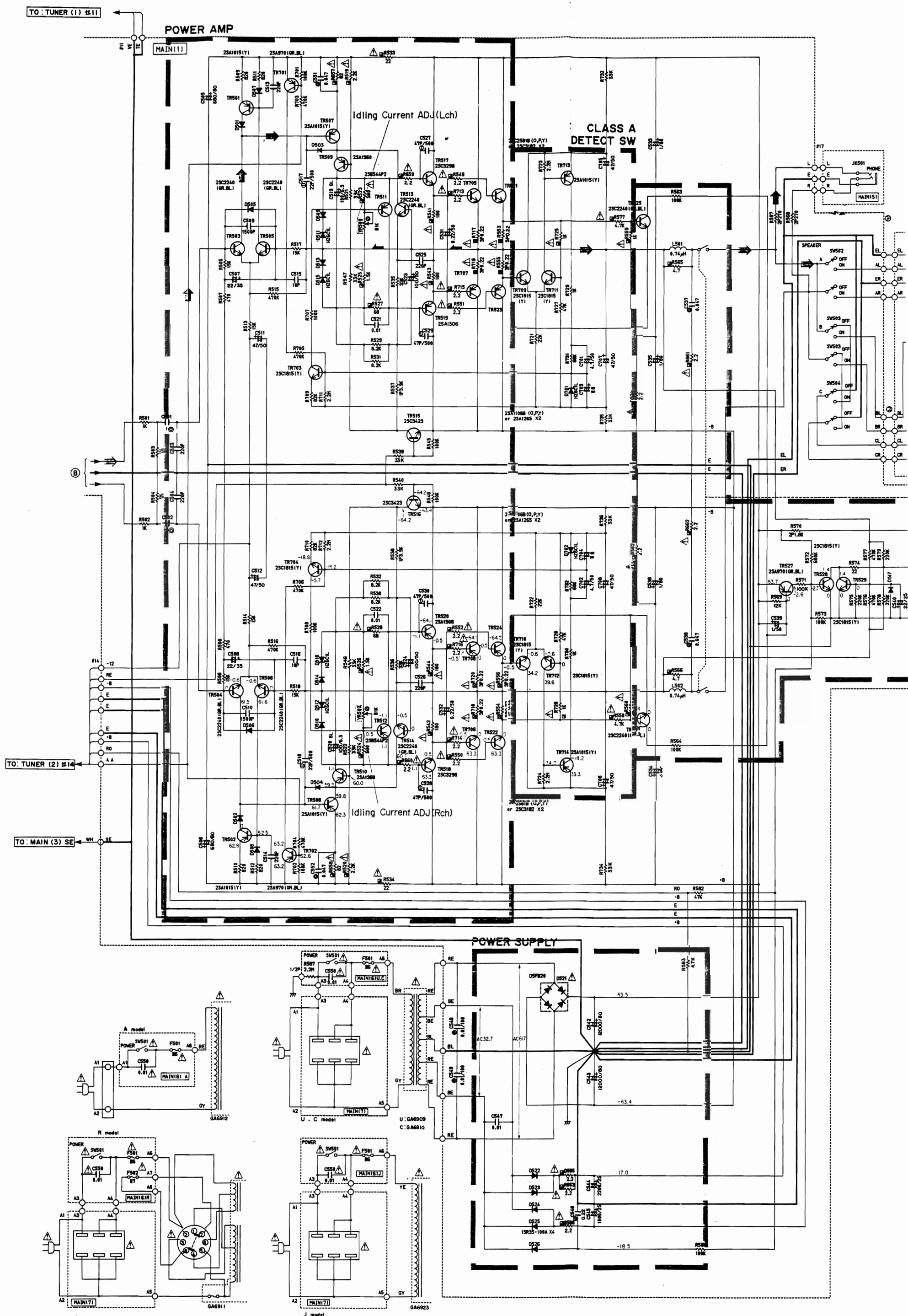
SCHEMATIC DIAGRAM





- All voltages measured with a 10MΩ/VDC electric volt meter, under no-signal condition.
- 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.

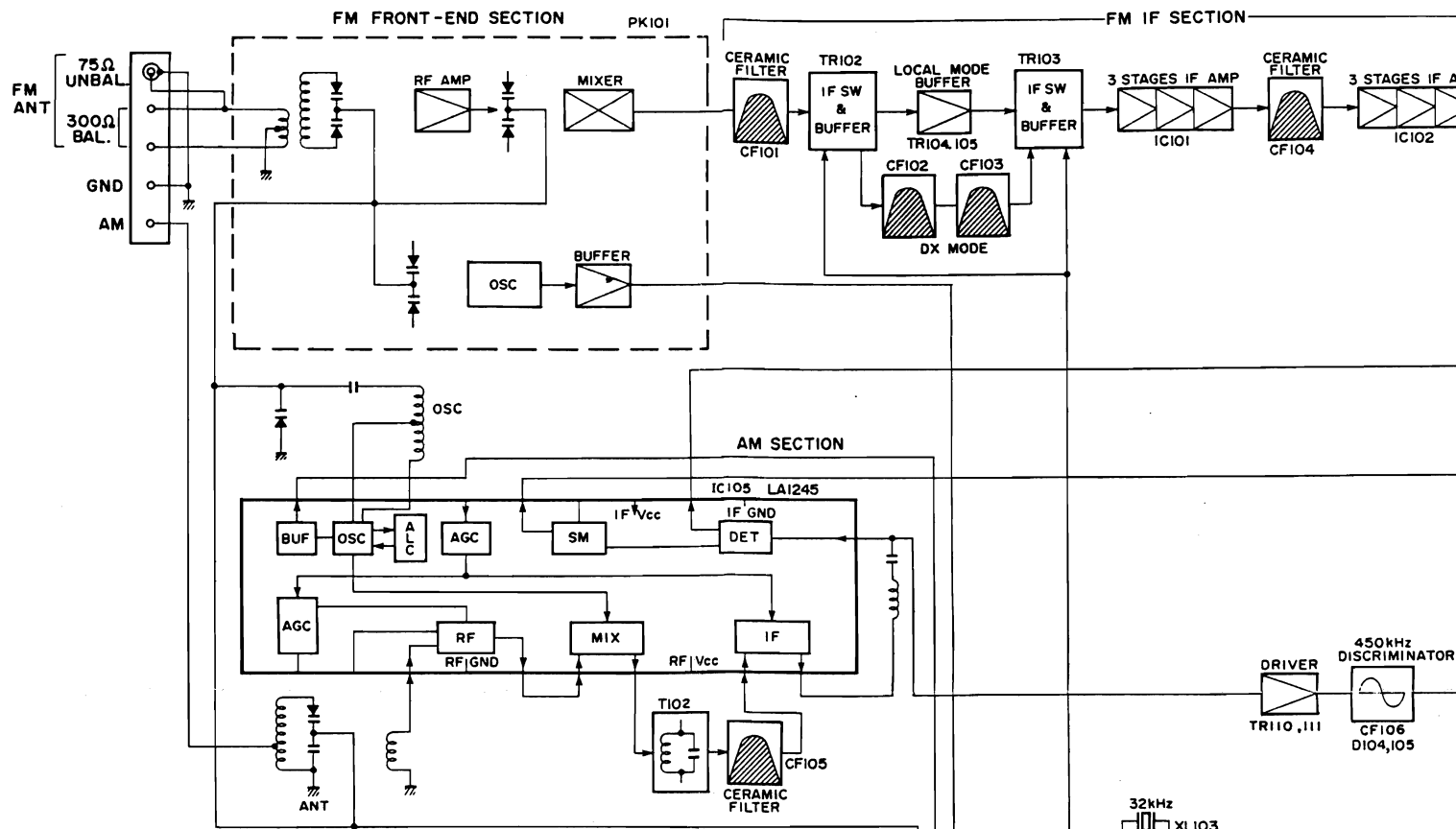
8



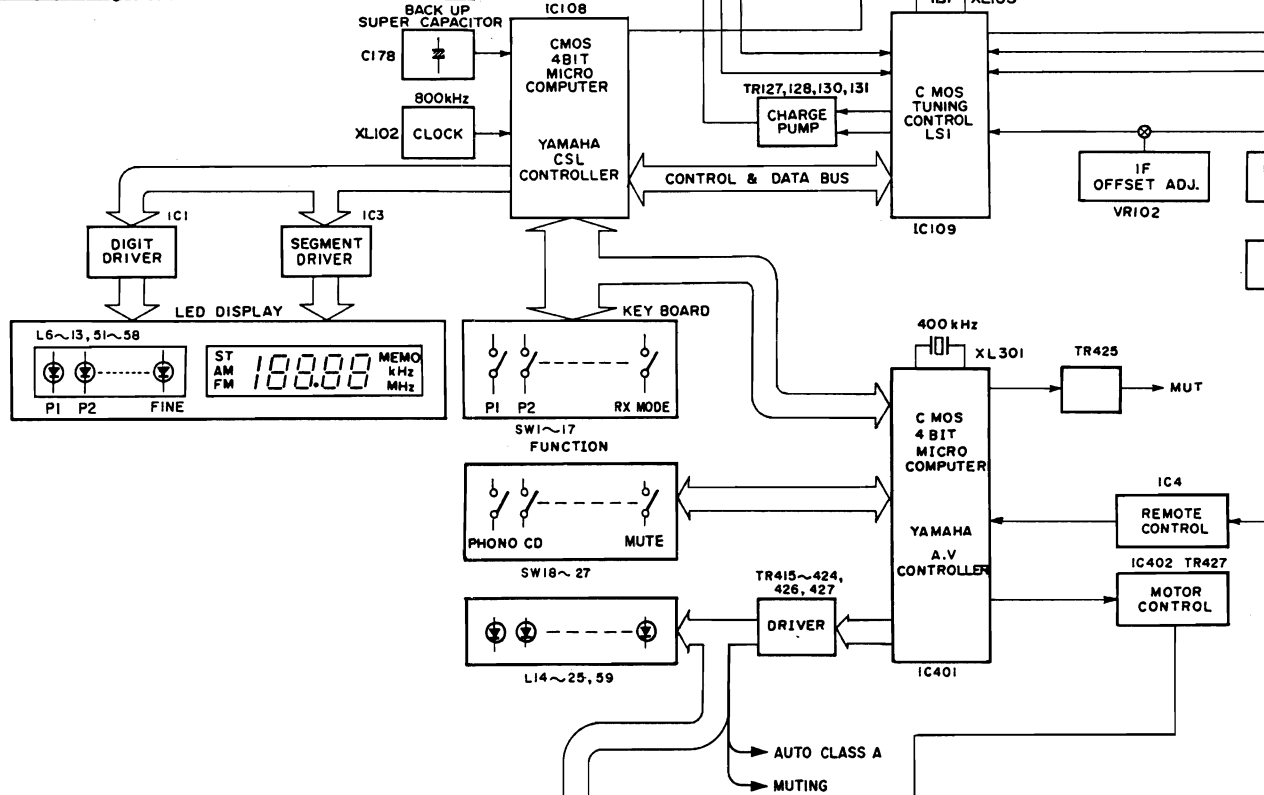
- 30**

■ BLOCK DIAGRAM

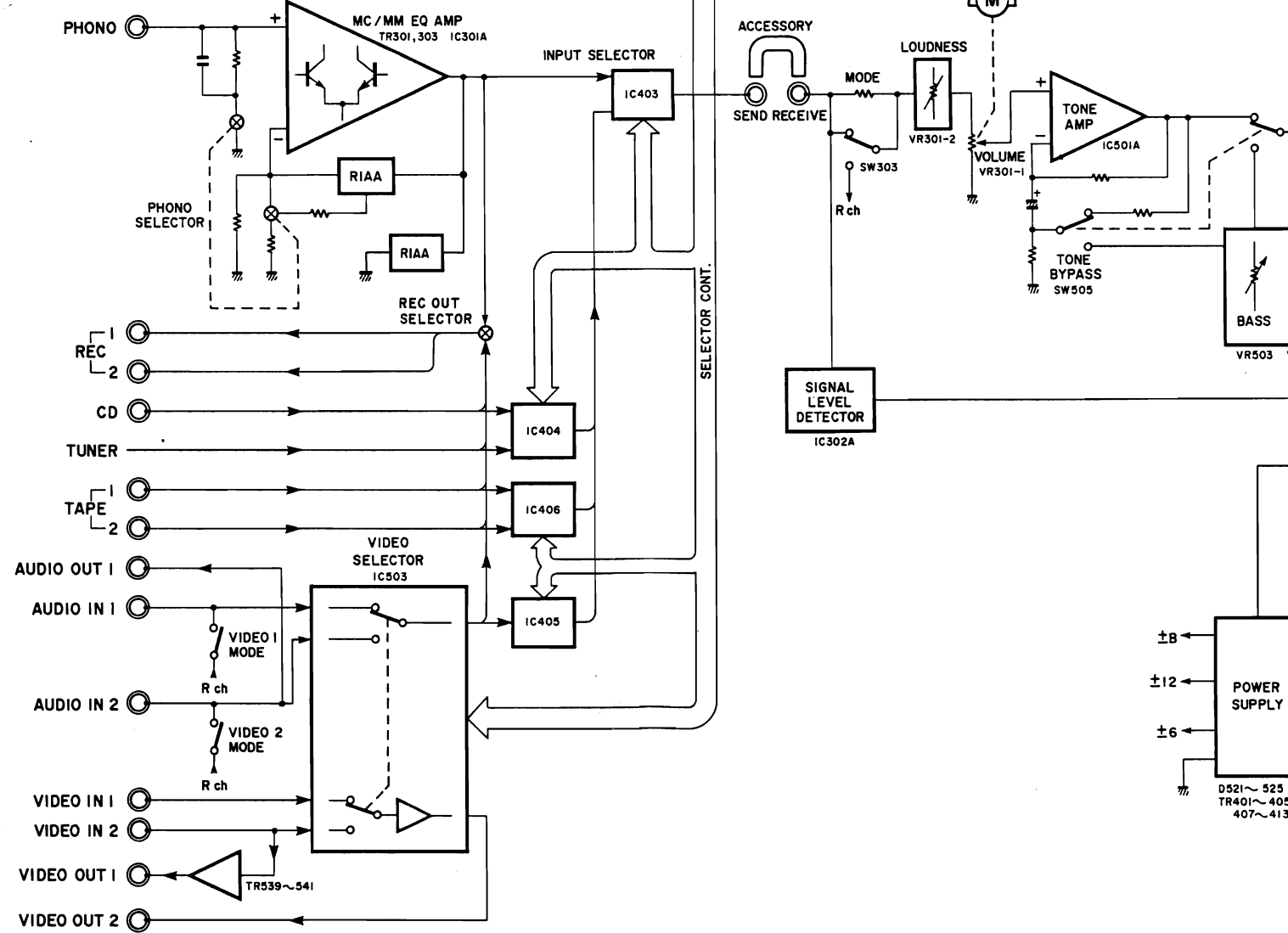
TUNER SECTION



CONTROL SECTION

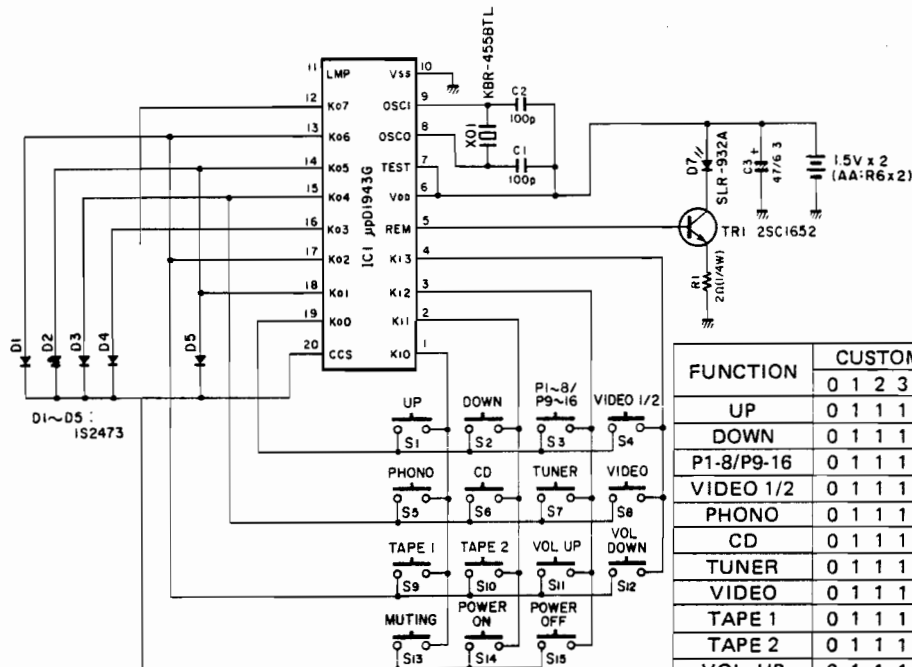


AUDIO SECTION



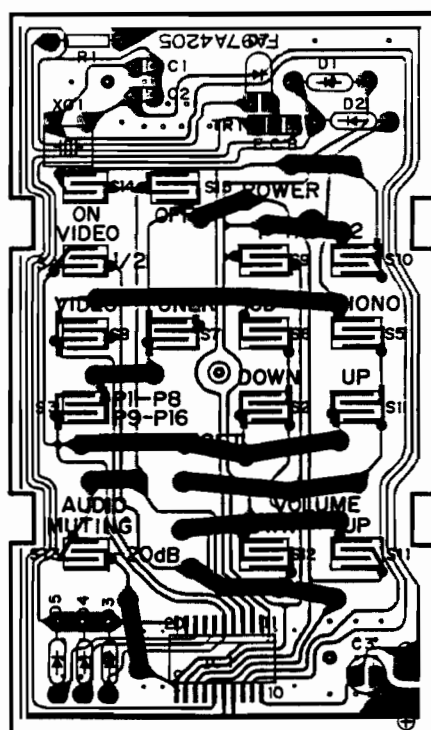
RS-9 REMOTE CONTROL TRANSMITTER

■ SCHEMATIC DIAGRAM

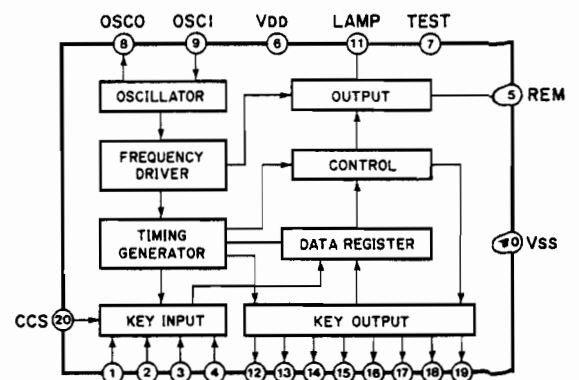
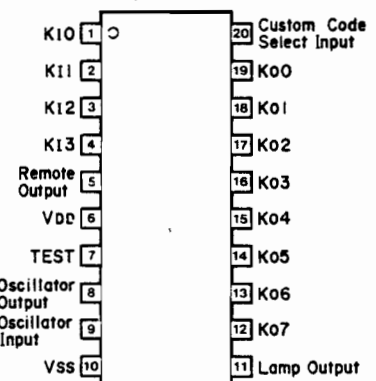


FUNCTION	CUSTOM CODE	DATA CODE
	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7
UP	0 1 1 1 1 0 1 0	0 0 0 0 1 0 0 0
DOWN	0 1 1 1 1 0 1 0	1 0 0 0 1 0 0 0
P1-8/P9-16	0 1 1 1 1 0 1 0	0 1 0 0 1 0 0 0
VIDEO 1/2	0 1 1 1 1 0 1 0	1 1 0 0 1 0 0 0
PHONO	0 1 1 1 1 0 1 0	0 0 1 0 1 0 0 0
CD	0 1 1 1 1 0 1 0	1 0 1 0 1 0 0 0
TUNER	0 1 1 1 1 0 1 0	0 1 1 0 1 0 0 0
VIDEO	0 1 1 1 1 0 1 0	1 1 1 0 1 0 0 0
TAPE 1	0 1 1 1 1 0 1 0	0 0 0 1 1 0 0 0
TAPE 2	0 1 1 1 1 0 1 0	1 0 0 1 1 0 0 0
VOL. UP	0 1 1 1 1 0 1 0	0 1 0 1 1 0 0 0
VOL. DOWN	0 1 1 1 1 0 1 0	1 1 0 1 1 0 0 0
MUTING	0 1 1 1 1 0 1 0	0 0 1 1 1 0 0 0
POWER ON	0 1 1 1 1 0 1 0	1 0 1 1 1 0 0 0
POWER OFF	0 1 1 1 1 0 1 0	0 1 1 1 1 0 0 0

PRINTED CIRCUIT BOARD
(Pattern side)



IC1 : μ PD1943G



PARTS LIST

■ ELECTRICAL PARTS

■ WARNING

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

● Carbon resistors of this stereo receiver are 1/6W. There is no discription about them in this parts list. Use the "Part No." HF85 ○○○○ or equivalent.

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
※	NA 08 76 50	Main Circuit Board	メ イ ン シ ー ト			R	
※	NA 08 76 70	"	"			U	
※	NA 08 76 90	"	"			C	
※	NA 08 77 10	"	"			A	
※	NA 08 80 50	"	"			J	
	FG 21 11 00	Ceramic Cap.	セ ラ コ ン	C515,516			
	FG 21 22 20	"	"	C503,504,513,514,525,526			
	FG 21 31 50	"	"	C509,510			
	FG 24 41 00	"	"	C521,522,547,553,554			
	Fi 41 41 00	"	"	C550			Δ
	FU 35 12 20	Mica Cap.	マ イ カ コ ン	C517,518			
	FU 35 14 70	"	"	C527~530			
	FZ 00 54 10	Electrolytic Cap.	ブ ラ ッ ク ゲ ー ト コ ン	C519,520			
※	FZ 00 75 90	"	ブ ロ ッ ク コ ン	C542,543			
	UA 25 33 30	Mylar Cap.	マ イ ラ ー コ ン	C579,580			
	UA 25 43 30	"	"	C575,576			
	UA 25 44 70	"	"	C537,538,551,552			
	FA 15 51 20	"	"	C571,572,593			
	UA 25 52 20	"	"	C546			
	UA 55 61 00	"	"	C501,502			
	UM 07 61 00	Electrolytic Cap.	ケ ミ コ ン	C561,562			
	UT 45 22 20	Polypropylene Film Cap.	ポ リ プ ロ コ ン	C563,564,567,568			
	UT 45 41 00	"	"	C548,549			
	Ui 93 82 20	Electrolytic Cap.	ケ ミ コ ン	C594			
	UJ 12 84 70	"	"	C590			
	UW 91 73 30	"	"	C565,566			
	UW 91 83 30	"	"	C541			
	UW 92 81 00	"	"	C591,592,596			
	UW 94 72 20	"	"	C540,569,570,589,595			
	UJ 45 72 20	"	"	C507,508			
	UJ 16 74 70	"	"	C511,512,705~708			
	UW 96 54 70	"	"	C573,574			
	UW 96 54 70	"	"	C703,704		R,U,A,C	
	UW 96 64 70	"	"	"		J	
	UJ 16 52 20	"	"	C531,532,581,582			
	UJ 16 61 00	"	"	C539,577,578,583~588			
	UW 96 64 70	"	"	C701,702			
	UW 82 84 70	"	"	C597,598			
	UW 86 81 00	"	"	C523,524			
	UW 84 91 00	"	"	C545			
	UW 84 92 20	"	"	C544			
※	UW 88 86 80	"	"	C505,506			
※	UW 68 61 00	"	"	C533~536			
	GD 90 06 80	Coil	空 芯 コ イ ル	L501,502			
※	GE 90 18 60	"	コ イ ル	L503,504			
	HJ 35 42 20	Carbon Resistor	カ ー ボ ン 抵 抗	R574			
	HJ 35 46 80	"	"	R650,651			
	HJ 35 48 20	"	"	R652,653			
	HJ 35 51 00	"	"	R648			
	HJ 35 52 20	"	"	R591,592,633~636, 639,649			
	HJ 35 53 30	"	"	R609,610,644			

※ New Parts (新規部品)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	HJ 35:53:90	Carbon Resistor	390Ω 1/4W	カーボン抵抗	R617,618		
	HJ 35:54:70	"	470Ω "	"	R507,508,611,612,645,646		
	HJ 35:58:20	"	820Ω "	"	R509~512,640		
	HJ 35:61:00	"	1kΩ "	"	R501,502,595,596,643,729,730		
	HJ 35:61:50	"	1.5kΩ "	"	R605,606		
	HJ 35:61:80	"	1.8kΩ "	"	R647		
	HJ 35:62:20	"	2.2kΩ "	"	R625,626,629,630		
	HJ 35:63:30	"	3.3kΩ "	"	R603,604,607,608		
	HJ 35:64:70	"	4.7kΩ "	"	R583,615,619~622		
	HJ 35:65:60	"	5.6kΩ "	"	R601,602		
	HJ 35:66:80	"	6.8kΩ "	"	R599,600		
	HJ 35:68:20	"	8.2kΩ "	"	R529~532		
	HJ 35:71:20	"	12kΩ "	"	R569,581,642		
	HJ 35:71:50	"	15kΩ "	"	R505,506,513,514,517,518,623,624		
	HJ 35:72:20	"	22kΩ "	"	R721,722		
	HJ 35:72:70	"	27kΩ "	"	R641		
	HJ 35:73:30	"	33kΩ "	"	R521,522,535,536,539,540,547,548,733~736		
	HJ 35:74:70	"	47kΩ "	"	R582,727,728		
	HJ 35:76:80	"	68kΩ "	"	R731,732		
	HJ 35:78:20	"	82kΩ "	"	R709,710		
	HJ 35:81:00	"	100kΩ "	"	R545,546,563,564,571,573,584,613,614,637,638,654,701,702,707,708		
	HJ 35:82:20	"	220kΩ "	"	R575,578,579,627,628,631,632		
	HJ 35:82:70	"	270kΩ "	"	R593,594,616		
	HJ 35:84:70	"	470kΩ "	"	R515,516,576,577,597,598,703~706		
	HJ 35:86:80	"	680kΩ "	"	R572,580		
	HJ 35:91:00	"	1MΩ "	"	R503,504,655,656		
	HJ 35:92:20	"	2.2MΩ "	"	R711,712,723,724		
	HG 30:92:20	"	2.2MΩ 1/2W	"	R587		
	HL 71:63:90	Metal Oxide Film Resistor	3.9kΩ 1W	酸 金 抵 抗	R537,538		△
	HL 72:52:70	"	270Ω 2W	"	R567,568		
	HL 32:61:80	"	1.8kΩ 2W	"	R570		
	HV 45:32:20	Flame Proof Carbon Resistor	2.2Ω 1/4W	不燃化カーボン抵抗	R549~552,561,562,585,586,659~663,713,716		△
	HV 45:34:70	"	4.7Ω "	"	R565,566		
	HV 45:42:20	"	22Ω "	"	R533,534		△
	HV 45:46:80	"	68Ω "	"	R527,528		△
	HV 45:48:20	"	82Ω "	"	R657,658		△
	HV 45:51:80	"	180Ω "	"	R541~544		△
	HV 45:55:60	"	560Ω "	"	R523,524		△
	HV 45:61:00	"	1kΩ "	"	R559,560,725,726		△
	HV 45:64:70	"	4.7kΩ "	"	R557,558		△
	HV 45:61:50	"	1.5kΩ "	"	R525,526		△
	HV 45:62:20	"	2.2kΩ "	"	R519,520		△
	HZ 00:30:50	Metal Plate Resistor	0.22Ω 5W	金 属 板 抵 抗	R553,554		△
	HZ 00:23:90	"	0.22Ω 3W	"	R555,556,717~720		△
※	HS 41:25:60	Potentiometer	10k トク×2	可 変 抵 抗 器	VR504,505 BASS,TREBLE		
※	HS 41:25:70	"	16k トク×2	"	VR503 LOUDNESS		
※	HS 41:25:80	"	20kMN	"	VR506 BALANCE		
	HT 37:03:40	Pre-Set Potentiometer	B1k Ω	半 固 定 抵 抗	VR501,502		
	iA 09:70:00	Transistor	2SA970(GR,BL)	ト ラ ン ジ ス タ	TR527,701,702		
	iA 10:15:20	"	2SA1015 (Y)	"	TR501,502,507,508,532,535~538,540,713,714		
※	iA 13:60:00	"	2SA1360	"	TR509,510		

※New Parts (新規部品)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	iC 18:15:20	Transistor	2SC1815 (Y)	ト ラ ン ジ ス タ	TR528,529,531,533,534,539,541,703,704,709~712		
	iC 22:40:00	"	2SC2240 (GR,BL)	"	TR503~506,513,514,525,526,530		
※	iC 34:23:00	"	2SC3423	"	TR515,516		
	iF 00:19:40	Zener Diode	HZ24-2	ツェナーダイオード	D520		
	iF 00:41:60	"	HZ6C1L	"	D511,512,515,516,701,702		
	iF 00:06:70	Diode	1S2473	ダ イ オ ード	D501~510,513,514,517,519,526	Inter-changeable	
	iF 00:00:40	"	1S1555	"	"		
	iH 00:11:30	Diode Bridge	D5FB20	ダイオードブリッジ	D521		△
	iH 00:14:30	Diode	1SR35-100A	ダ イ オ ード	D522~525		
	iG 06:69:00	IC	M51010P	I C	IC502		
	iG 09:20:00	"	M5220L	"	IC501		
※	iG 14:94:00	"	M51320P	"	IC503		
	KA 40:16:90	Slide Switch	SSJ312A	スライドスイッチ	SW507,508 ST/MONO		
	KA 80:27:60	Push Switch		プッシュスイッチ	SW502~504 SPEAKER		
	KA 80:35:20	"	SDL TV-5	"	SW501 POWER		△
※	KA 80:51:80	"		"	SW505,506 TONE BYPASS		
	KB 00:04:00	Fuse	T5.0A 250V	ヒ ュ ー ズ	F502	R	△
	KB 00:07:90	"	T4.0A 250V	"	F501	A	△
	KB 00:13:90	"	10A 250V	"	"	U,C	△
	KB 00:14:90	"	10A 250V	"	"	J,R	△
※	KC 00:20:20	Relay	DH2TU24VDC	リ レ ー	RY501		△
	LB 30:17:60	Phone Jack	Black	ホ ー ン ジャ ッ ク	JK501		
※	LB 20:30:40	Pin Jack	2P	ピ ン ジャ ッ ク	PJ502,503		
	LB 60:60:90	"	6P	"	PJ501		
	LA 00:20:00	Lapping Terminal	P=7.5 2P i-Type	i 型ラッピング端子板			
	LA 00:21:10	"	P=5 2P i-Type	"			
	LA 00:21:50	"	P=10 3P i-Type	"			
	LA 00:23:20	"	P=7.5 3P i-Type	"			
※	LA 00:55:90	"	4P	スピーカーターミナル			
※	LA 00:56:20	"	8P	"			
	LB 20:10:60	Fuse Holder Pin	YSH403T	ヒューズホルダーピン		A	
	LB 20:19:70	"	23165081	"		J,R,U,C	
	LB 60:42:80	AC Outlet	M7026E	A C アウトレット		J,R,U	
※	LB 60:81:70	"	M7026D	"		C	
	LA 00:26:10	Lapping Terminal	P=5 2P L-Type	L 型ラッピング端子板		J,R,U,C	
	BB 06:83:70	Ground Metal		ア ー ス 金 具			
	BB 07:07:00	"		"			
※	NA 08:77:70	Tuner Circuit Board		チューナーシート		R	
※	NA 08:77:80	"		"		U,C	
※	NA 08:77:90	"		"		A	
※	NA 08:80:40	"		"		J	
	FG 21:11:20	Ceramic Cap.	12pF 50V	セ ラ コ ン	C191		
	FG 21:14:70	"	47pF 50V	"	C107		
	FG 21:21:00	"	100pF 50V	"	C181,182,187,188,324		

* New Parts (新規部品)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	FG 21 22 20	Ceramic Cap.	220pF 50V	セラコン	C303,304,411		
	FG 21 24 70	"	470pF 50V	"	C132,343,344,410		
	FG 21 31 00	"	1000pF 50V	"	C159,172,199,200,413,414		
	FG 24 41 00	"	0.01 μ F 50V	"	C101,102,104~106,109,115~121,149,154,157,162~165,171,177,180,325,326,416,417		
	Fi 19 12 20	"	22pF 50V(CH)	"	C184,185		
	Fi 19 21 00	"	100pF 50V	"	C122,123		
	FG 24 31 00	"	1000pF 50V	"	C155,161		
	FX 60 08 00	"	4700pF 25V	"	C189,190		
	FX 60 07 90	"	0.01 μ F 16V	"	C110,112~114,151,160,167,173		
	FZ 00 64 00	Electrolytic Cap.	47000 μ F 5.5V	スーパーキャパシタ	C178	Inter-changeable	
	FZ 00 35 80	"	47000 μ F 5.5V	"	"		
	UA 25 31 00	Mylar Cap.	1000pF 50V	マイラーコン	C141,142		
	UA 25 31 50	"	1500pF 50V	"	C307,308,337		
	UA 25 31 00	"	1000pF 50V	"	C137,138	J,A	
	UA 25 31 50	"	1500pF 50V	"	"	R,U,C	
	UA 25 32 70	"	2700pF 50V	"	C139,140		
	UA 25 33 90	"	3900pF 50V	"	C143,144		
	UA 25 35 60	"	5600pF 50V	"	C319,320,334,335		
	UA 25 41 10	"	0.011 μ F 50V	"	C301,302,313,314		
	UA 25 41 20	"	0.012 μ F 50V	"	C336		
	UA 25 42 20	"	0.022 μ F 50V	"	C136,317,318		
	UA 25 43 30	"	0.033 μ F 50V	"	C341,342		
	UA 25 43 90	"	0.039 μ F 50V	"	C311,312		
	UA 25 44 70	"	0.047 μ F 50V	"	C129,133,148,415		
	UA 25 52 20	"	0.22 μ F 50V	"	C331,332		
	Ui 91 84 70	Electrolytic Cap.	470 μ F 6.3V	ケミコン	C124		
*	Ui 91 92 20	"	2200 μ F 6.3V	"	C309,310		
	UK 13 72 20	"	22 μ F 16V	B P コ ン	C315,316		
	UK 16 54 70	"	0.47 μ F 50V	"	C127,147,333		
	UK 16 61 00	"	1 μ F 50V	"	C128,329,330,406		
	UL 46 61 00	"	1 μ F 50V	ローノイズケミコン	C175		
	UL 46 62 20	"	2.2 μ F 50V	"	C176		
	UT 45 25 60	Polypropylene Film Cap.	560pF 100V	ポリプロコン	C156		
	UW 93 73 30	Electrolytic Cap.	33 μ F 16V	ケミコン	C321,401,402,405,408,409,412		
	UW 93 81 00	"	100 μ F 16V	"	C323		
	UW 94 71 00	"	10 μ F 25V	"	C103,108,125,126,134,135,145,150,152,153,158,166,169,174,179,305,306,407		
	UW 84 83 30	"	330 μ F 25V	"	C322		
	UJ 14 73 30	"	33 μ F 25V	"	C327,328		
	UJ 16 53 30	"	0.33 μ F 50V	"	C183,345,346		
	UJ 16 61 00	"	1 μ F 50V	"	C111,130,131,170,186,192,193,197,198		
	UW 96 62 20	"	2.2 μ F 50V	"	C195,196		
	UW 96 64 70	"	4.7 μ F 50V	"	C146,168,194,339,340		
	UW 83 91 00	"	1000 μ F 16V	"	C403,404		
	GE 10 02 80	Discri Coil	FM	FMディスクリコイル	T101		
	GE 10 04 70	IFT Coil	AM	AM IFT コ イ ル	T102		
	GE 30 04 30	RF Inductor	220 μ H	R F イ ン ダ ク タ ー	L103		
	GE 90 06 90	Coil	8.2mH	コ イ ル	L104,105		
*	GE 90 18 50	"	39mH	"	L101,102		
	GG 00 04 20	AM Ceramic Discriminator	CDA450A	AMセラミックディスクリ	CF106		

* New Parts (新規部品)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	GG 00 06 00	Ceramic Filter	SFE10.7MX×2	セラミックフィルター	CF101,104	PACK	
		"	SFE10.7MS3G×2	"	CF102,103		
	GG 00 06 60	AM Ceramic Filter	SFU450B9	AMセラミックフィルター	CF105		
	GG 00 07 00	Ceramic Vibrator	FCR400K	セラミック振動子	XL401		
	GG 00 07 40	"	CSB456F10	"	XL101		
*	GG 00 07 60	"	CSB800K	"	XL102		
	QU 00 39 00	Quartz Crystal Unit	32KHz	水 晶 振 動 子	XL103		
	FY 00 01 90	Trimmer Cap.	5pF	ト リ マ ー コ ン	VC101		
	HJ 35 52 20	Carbon Resistor	220Ω 1/4W	カ ー ボ ン 抵 抗	R110,128,173		
	HJ 35 41 00	"	10Ω "	"	R301,302		
	HJ 35 54 70	"	470Ω "	"	R327,328		
	HJ 35 61 00	"	1kΩ "	"	R115,139,411,415,468		
	HJ 35 61 20	"	1.2kΩ "	"	R333,413		
	HJ 35 62 20	"	2.2kΩ "	"	R418,463		
	HJ 35 63 30	"	3.3kΩ "	"	R230,409,410,412,416		
	HJ 35 64 70	"	4.7kΩ "	"	R186,315,316,401,404,406,470		
	HJ 35 66 80	"	6.8kΩ "	"	R235,419		
	HJ 35 68 20	"	8.2kΩ "	"	R405		
	HJ 35 71 00	"	10kΩ "	"	R118,164,165,208,309~312,402,403,414		
	HJ 35 71 20	"	12kΩ "	"	R177		
	HJ 35 72 20	"	22kΩ "	"	R229		
	HJ 35 74 70	"	47kΩ "	"	R121,456		
	HJ 35 76 80	"	68kΩ "	"	R379,380		
	HJ 35 78 20	"	82kΩ "	"	R307		
	HJ 35 81 00	"	100kΩ "	"	R120,138,156,458		
	HJ 35 82 20	"	220kΩ "	"	R142,188		
	HJ 35 83 90	"	390kΩ "	"	R347		
	HJ 35 91 00	"	1MΩ "	"	R231		
	HV 45 41 00	Flame Proof Carbon Resistor	10Ω 1/4W	"	R462		
	HV 45 51 00	"	100Ω "	"	R334,335		
*	HS 31 26 60	Potentiometer with Motor	100kΩ×2 + 300kΩ×2	モーター付可変抵抗器	VR301 VOLUME		
	HT 37 03 70	Pre-Set Potentiometer	B5kΩ	半 固 定 抵 抗	VR102		
	HT 37 04 20	"	B100kΩ	"	VR101		
	iA 09 70 00	Transistor	2SA970 (GR,BU)	ト ラ ン ジ ス タ	TR301~304,403		
	iA 10 15 20	"	2SA1015 (Y)	"	TR109,114,115,120,121,123~125,127,131,133,401,408,411,415~425	Inter-changeable	
	iA 11 15 10	"	2SA1115 (E,F)	"	"		
	iX 60 31 70	"	2SA1310 (R,S,T)	"	"		
	iB 05 44 10	"	2SB544	"	TR412,428		
	iC 19 23 00	"	2SC1923	"	TR102,103		
	iC 22 40 00	"	2SC2240 (GR,BU)	"	TR414		
	iC 28 78 00	"	2SC2878	"	TR305~308		
	iC 18 15 20	"	2SC1815 (Y)	"	TR101,104~108,110~113,116~119,122,126,128~130,132,134,135,402,404,426,427	Inter-changeable	
	iC 26 03 10	"	2SC2603 (E,F)	"	"		
	iX 60 31 80	"	2SC3312 (R,S,T)	"	"		
	iD 08 80 10	"	2SD880 (Y,G,R)	"	TR407,409,413	Inter-changeable	
	iD 14 37 00	"	2SD1437 (E,F)	"	"		
*	iD 12 66 00	"	2SD1266 (P,Q)	"	TR405,410		

* New Parts (新規部品)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	iF 00:00:40	Diode	1S1555	ダイオード	D101,102		
	iF 00:06:70	"	IS2473	"	0103~107,109~111,301,302,304~306,407,409~412,414,415,417,418	Inter-changeable	
	iF 00:00:40	"	IS1555	"	"		
	iF 00:14:00	"	ISS82	"	D401		
	iF 00:20:20	LED (Red)	SLB-15UR	L E D	D419		
	iX 60:42:90	Zener Diode	HZ12A3	ツェナーダイオード	D404,405		
	iF 00:14:70	"	RD6.2EB2	"	D303,406,408,413		
	iF 00:16:70	"	RD6.8EB2	"	D402		
	iF 00:33:20	"	HZ9C3	"	D403		
	iF 00:66:70	"	MA1047M	"	D108		
	iG 03:45:00	iC	μPC577H (E,F)	I C	IC101,102		
	iG 07:68:00	"	NJM4558S	"	IC103	Inter-changeable	
	iG 13:22:00	"	BA715	"	"		
	iG 03:55:00	"	TC4028BP	"	IC107	Inter-changeable	
	iG 14:87:00	"	BU4028B	"	"		
	iG 04:14:00	"	M54459L	"	IC106		
	iG 04:78:00	"	LA1245	"	IC105		
	iG 04:91:00	"	LC7210	"	IC109		
	iG 05:49:00	"	M54542	"	IC402		
	iG 06:16:00	"	μPD4066BC	"	IC404~406	Inter-changeable	
	iG 08:92:00	"	LC4066B	"	"		
	iG 12:18:00	"	NJM4560S	"	IC301	Inter-changeable	
	iG 13:30:00	"	BA4561	"	"		
	iG 14:25:00	"	LA3400	"	IC104		
	iG 08:57:00	"	M5218L (V)	"	IC302,303,407	Inter-changeable	
	iG 14:50:00	"	NJM4558S (F)	"	"		
	iG 14:77:00	"	LC6510C-695	"	IC108		
	iG 14:78:00	"	LC6505C-696	"	IC401		
	iG 14:93:00	"	LC4966	"	IC403		
	KA 40:16:90	Slide Switch	SSJ312A	スライドスイッチ	SW101		R
	KA 80:51:10	Push Switch	SUN 2-2 NS	プッシュスイッチ	SW303 MODE		
	KA 80:51:70	"	SUN 4-2 NS	"	SW302 SIMULATED STEREO		
	KA 80:52:00	"	SUF 4-2 S&NS	"	SW301 PHONO		
	KA 90:10:70	Remote Switch		リモートスイッチ	SW401 REC OUT		
	LB 20:22:90	Pin Jack	2P	ピンジャック	PJ301,401		
	LB 40:10:30	"	4P	"	PJ402~404		
	NA 08:58:20	Coil Pack	AM	A M コイルパック	U101		
	PA 00:08:10	Front End Pack	FE343U	フロントエンドパック	PK101		R,U,A,C
	PA 00:07:10	"	BFE346J15	"	"		J
	LA 00:48:40	Antenna Terminal	5P	アンテナ端子板			J
	LA 00:39:90	"	5P	"			R,U,A,C
	BB 06:83:70	Ground Metal		アース金具			
	CB 09:95:40	Hinge,P.C.B		P C B ヒンジ			
	AA 62:64:20	Shield Plate		シールド板			

*New Parts (新規部品)

R-9

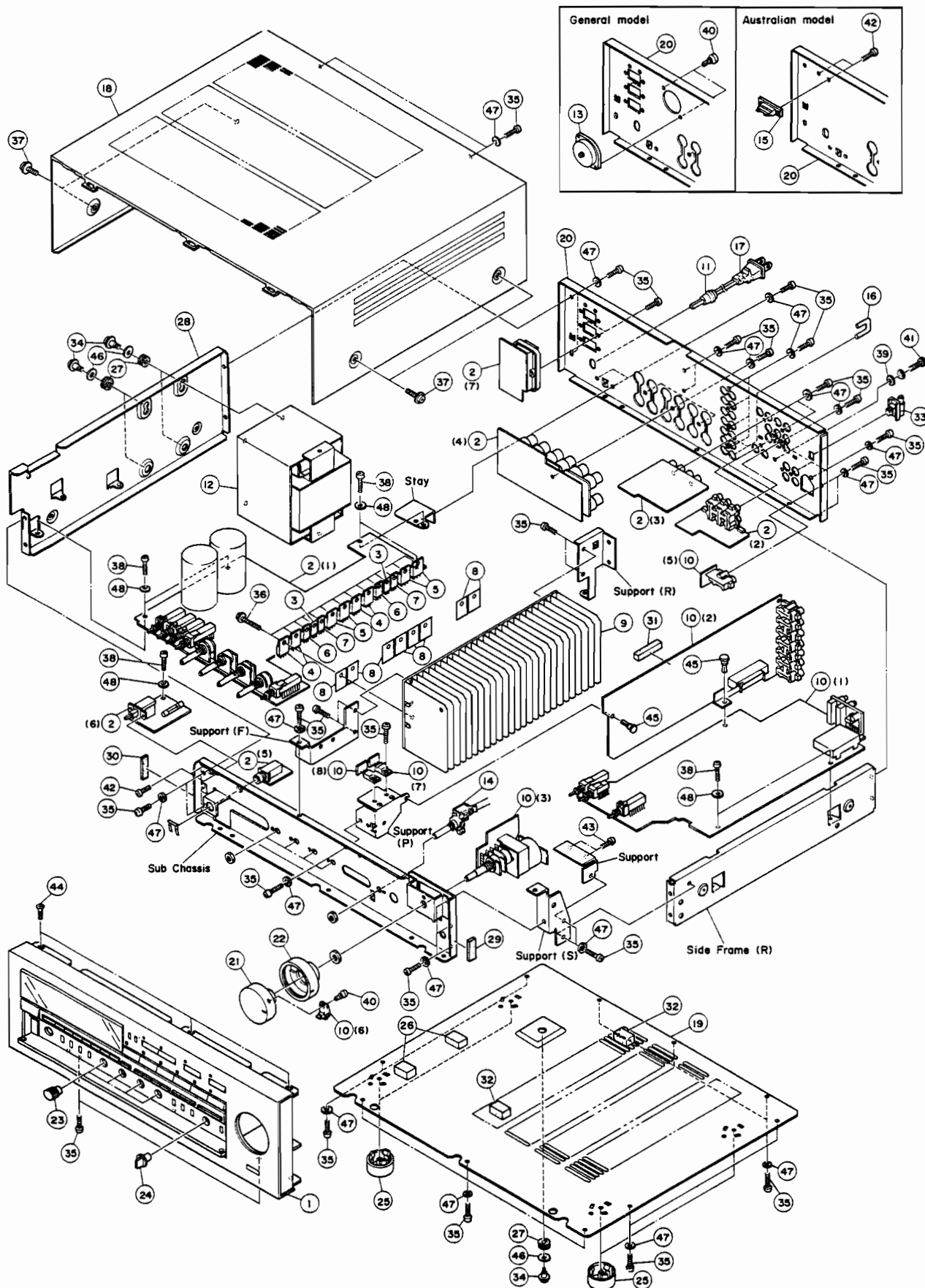
Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
*	NA 08:83:80	Keyboard Circuit Board	キ ー ボ ー ト シ ー ト				
	HJ 35:63:90	Carbon Resistor	3.9k Ω 1/4W	カ ー ボ ン 抵 抗	R33,34		
	HJ 35:53:30	"	330 Ω "	"	R21		
	HJ 35:74:70	"	47k Ω "	"	R1		
	HJ 35:71:00	"	10k Ω "	"	R3,19,20		
	HJ 35:42:70	"	27 Ω "	"	R4~11		
	HJ 35:43:30	"	33 Ω "	"	R12~18		
	HJ 35:64:70	"	4.7k Ω "	"	R2		
	HJ 35:61:20	"	1.2k Ω "	"	R22~32		
	FG 24:41:00	Ceramic Cap.	0.01 μ F 50V	セ ラ コ ン	C3		
	UW 93:71:00	Electrolytic Cap.	10 μ F 16V	ケ ミ コ ン	C2		
	UJ 12:84:70	"	470 μ F 10V	"	C1		
	iF 00:34:20	Diode	1S1588	ダ イ オ ー ド	D1~8	Inter-changeable	
	iF 00:06:70	"	1S2473	"	"		
	iC 23:20:00	Transistor	2SC2320	ト ラ ン ジ ス タ	Q2		
	iA 09:99:00	"	2SA999	"	Q1		
	iG 13:20:00	IC	BA618	I C	IC3		
	iG 14:67:00	"	LB1413	"	IC2		
	iG 11:71:00	"	M54526	"	IC1	Inter-changeable	
	iG 14:54:00	"	LB1234	"	"		
	iG 14:72:00	"	BA12004	"	"		
	iF 00:87:40	LED (Green)	SLR-34MC-3H3	L E D	L1~5		
	iF 00:87:30	" (Red)	SLR-34URC-3H3	"	L6~25		
	iF 00:44:40	" (Red)	SLV-56URC-3H	"	L51~59		
	iF 00:82:90	Frequency Display	LC337-829	表 示 器			
*	LX 60:01:90	MP Socket	4P	M P ソ ケ ッ ト	CN7		
*	LX 60:02:00	"	7P	"	CN6		
*	LX 60:02:10	"	7P	"	CN5		
*	LX 60:02:30	"	14P	"	CN4		
*	LX 60:01:60	"	2P	"	CN3		
*	LX 60:01:70	"	3P	"	CN2		
*	LX 60:02:20	"	8P	"	CN1		
*	KX 60:04:10	Switch		M T ス イ ッ チ			

* New Parts (新規部品)

[illegible]

※ New Parts (新規部品)

EXPLODED VIEW



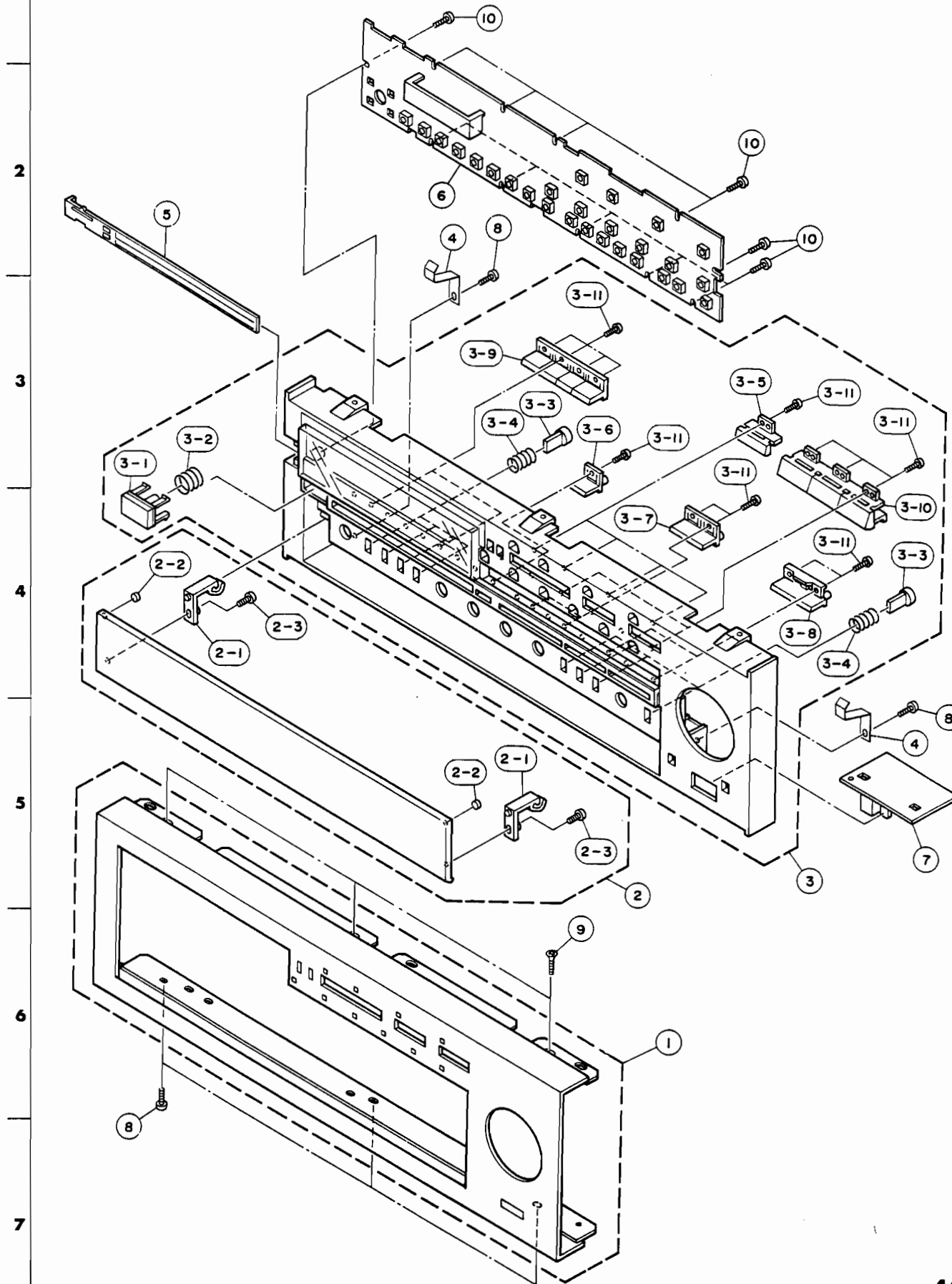
MECHANISM PARTS

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
※ 1	NB 62:65:40	Panel Unit	パ ネ ル ユ ニ ッ ト	Silver			
※ "	NB 62:65:50	"	"	Black			
※ 2	NA 08:76:50	Main Circuit Board	メ イ ン シ ー ト			R	
※ "	NA 08:76:70	"	"			U	
※ "	NA 08:76:90	"	"			C	
※ "	NA 08:77:10	"	"			A	
3	iB 05:44:10	Transistor	ト ラ ン ジ ス タ	TR511,512			
4	iA 11:06:40	"	"	TR523,524,707,708	Inter-changeable		
※ "	iA 12:65:30	"	"	"			
5	iC 25:81:40	"	"	TR521,522,705,706	Inter-changeable		
※ "	iC 31:82:30	"	"	"			
6	iA 13:06:10	"	"	TR519,520			
7	iC 32:98:10	"	"	TR517,518			
8	iL 00:04:60	Mica Base	マ イ カ ベ ー ス				
9	BA 09:24:80	Heat Sink	放 熱 板				
※ 10	NA 08:77:70	Tuner Circuit Board	チューナーシート			R	
※ "	NA 08:77:80	"	"			U,C	
※ "	NA 08:77:90	"	"			A	
11	CB 62:01:90	Cord Stopper	コードストッパー			R,A	
"	CB 62:02:00	"	"			U,C	
※ 12	GA 69:09:00	Power Transformer	電 源 ト ラ ン ス			U	△
※ "	GA 69:10:00	"	"			C	△
※ "	GA 69:11:00	"	"			R	△
※ "	GA 69:12:00	"	"			A	△
13	LB 20:14:80	Voltage Selector	電 圧 切 換 器			R	△
※ 14	KA 90:71:00	Remote Rotary Switch	リモートロータリースイッチ				
15	LA 00:29:50	Terminal Board	中 継 端 子 台			A	
16	LB 10:11:10	Short Plug	ショ ー ト プ ラ グ	ACCESSORY Terminal			
17	MG 00:09:20	Power Cord	7.5A250V 2.5m	電 源 コ ー ド	Inter-changeable	A	△
"	MG 00:14:90	"	7.5A250V 2.5m	"		A	△
"	MG 00:14:50	"	10A125V 1.98m	"	Inter-changeable	U	△
"	MG 00:14:60	"	10A125V 2m	"		U	△
"	MG 00:16:30	"	6A250V 2m	"		R	△
※ "	MG 00:22:20	"	10A125V 1.98m	"		C	△
※ 18	AA 62:60:40	Top Cover	ト ッ プ カ バ ー	Silver			
※ "	AA 62:60:60	"	"	Black			
※ 19	AA 62:60:30	Bottom Cover	ボ ト ム カ バ ー				
※ 20	AA 62:59:20	Rear Panel	リ ア パ ネ ル			R	
※ "	AA 62:59:30	"	"			U,C	
※ "	AA 62:59:40	"	"			A	
※ 21	BA 09:24:90	Knob	ツ マ ミ	Silver VOLUME			
※ "	BA 09:25:00	"	"	Black "			
※ 22	BA 09:25:30	"	"	Silver LOUDNESS			
※ "	BA 09:25:40	"	"	Black "			
23	CB 62:08:10	"	"	Silver			
"	CB 62:08:20	"	"	Black			
24	CB 62:08:30	Switch Knob	ス イ ッ チ ツ マ ミ	Silver REC OUT			
"	CB 62:08:40	"	"	Black "			
25	CB 62:07:30	Leg	ト ラ ン レ ッ グ				
※ 26	CB 64:58:80	Spacer	ス ペ ー サ ー				
27	CB 09:99:10	Rubber, Cushion	防 振 ゴ ム				
※ 28	AA 62:59:00	Side Frame(L)	サイ ド フ レ ー ム (L)				
29	CB 61:93:10	Damper	ダ ン パ ー				

※New Parts (新規部品)

※ New Parts (新規部品)

EXPLODED VIEW(Panel Unit)

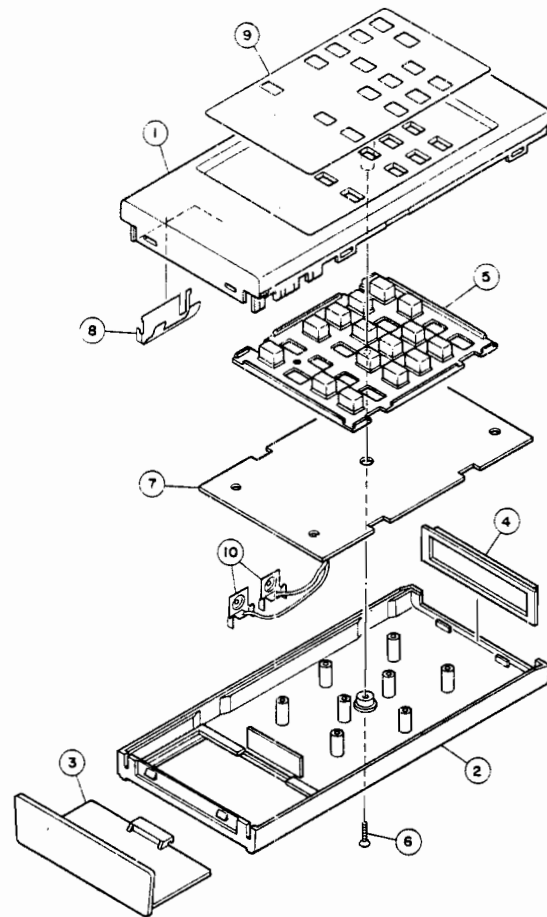


MECHANISM PARTS(Panel Unit)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
※	NB 62 65 40	Panel Unit	パネルユニット	Silver			
※	NB 62 65 50	"	"	Black			
※	1 NB 62 82 70	Front Panel Ass'y	フロントパネルAss'y	Silver			
※	" NB 62 82 80	"	"	Black			
※	2 NB 62 82 90	Sealing Panel Ass'y	シーリングパネルAss'y	Silver			
※	" NB 62 83 00	"	"	Black			
※	2-1 XX 65 00 10	Hinge	ヒンジ	Silver			
※	" XX 65 00 20	"	"	Black			
※	2-2 CB 62 08 90	Cushion	クッション	Silver			
※	" CB 62 19 30	"	"	Black			
2-3	EA 33 00 66	Pan Head Screw	3×6 FCRM3-BI	ナベ小ネジ	PACK		
※	3 NB 62 65 60	Sub Chassis Unit	サブシャーシユニット	Silver			
※	" NB 62 65 70	"	"	Black			
3-1	NB 61 42 10	Button	ボタン	Silver	POWER		
"	NB 61 42 20	"	"	Black	"		
3-2	AA 61 78 80	Spring	スプリング				
※	3-3 CB 62 08 50	Push Button	プッシュボタン	Silver			
※	" CB 62 08 60	"	"	Black			
3-4	AA 61 78 90	Spring	スプリング				
※	3-5 XX 65 00 30	Button,V	Vボタン	Silver			
※	" XX 65 00 40	"	"	Black			
3-6	CB 63 99 20	Button,Push	1P	ボタンプッシュ	Silver		
"	CB 63 99 30	"	1P	"	Black		
3-7	CB 63 99 40	"	2P	"	Silver		
"	CB 63 99 50	"	2P	"	Black		
3-8	CB 63 99 60	Button Seesaw		ボタンシーソー	Silver		
"	CB 63 99 70	"		"	Black		
3-9	CB 64 01 40	Button,Push	4P	ボタンプッシュ	Silver		
"	CB 64 01 50	"	4P	"	Black		
3-10	CB 64 01 20	"	3P	"	Silver		
"	CB 64 01 30	"	3P	"	Black		
3-11	EJ 02 00 66	Pan Head Tapping Screw	2×6 ZMC2-Y	ナベタッピングネジ	PACK		
4	XX 65 00 50	Spring	バネ				
※	5 XX 65 00 60	Slider	スライダー	Silver			
※	" XX 65 00 70	"	"	Black			
※	6 NA 08 83 80	Keyboard Circuit Board	キーボードシート				
※	7 NA 08 83 90	Remote Control Circuit Board	リモコンシート				
8	EJ 33 00 66	Pan Head Tapping Screw	3×6 FCRM3-BI	ナベタッピングネジ	PACK		
9	EO 33 00 66	Flat Head Tapping Screw	3×6 FCRM3-BI	皿タッピングネジ	PACK		
10	EJ 02 60 66	Pan Head Tapping Screw	2.6×6 ZMC2-Y	ナベタッピングネジ	PACK		

※New Parts (新規部品)

1 ■ EXPLODED VIEW(RS-9)



■ PARTS LIST(RS-9)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
※	PB 06 47 60	Remote Control Transmitter	RS-9	リモコントランスミッタ			
※	1 XX 64 99 10	Case (A)		ケース (A)			
※	2 XX 64 24 20	Case (B)		ケース (B)			
※	3 XX 64 24 30	Case (C)		ケース (C)			
※	4 XX 64 24 40	Filter		フィルター			
※	5 XX 64 99 30	Rubber		ゴム 接点			
※	6 EO 22 61 06	Flat Head Screw	2.6×10	皿 小 ネジ	PACK		
※	7 XX 64 99 60	P.C. Board Ass'y		プリント基板Ass'y			
※	8 XX 64 24 80	Battery Terminal A		電池電極板 A			
※	9 XX 64 99 50	Plate		プレート			
※	XX 64 99 60	P.C. Board Ass'y		プリント基板Ass'y			
※	iX 60 16 00	IC	μPD1943G	I C IC1			
※	iX 60 36 10	Transistor	2SC1652	トランジスタ TR1			
※	iX 60 36 00	LED	SLR-932A	L E D D7			
※	iF 00 06 70	Diode	1S2473	ダイオード D1~5			
※	QX 60 00 40	Ceramic Resonator	KBR-455BTL	セラミック振動子 X01			
※	FG 21 21 00	Ceramic Cap.	100pF 50V	セラコン C1,2			
※	UJ 11 74 70	Electrolytic Cap.	47μF 6.3V	ケミコン C3			
※	HJ 35 32 00	Carbon Resistor	2Ω 1/4W	カーボン抵抗 R1			
※	10 XX 64 24 90	Battery Terminal C		電極板 C			

*New Parts (新規部品)

R-9

YAMAHA