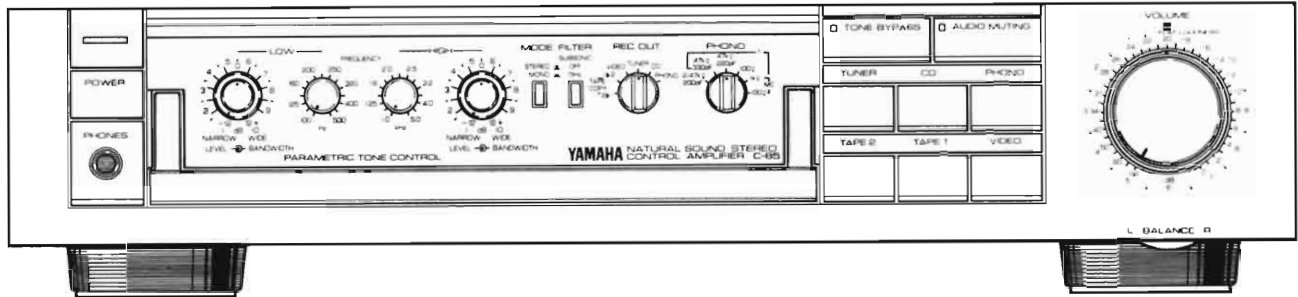


STEREO CONTROL AMPLIFIER C-85

SERVICE MANUAL

FRONT PANEL



IMPORTANT NOTICE

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

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

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

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

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

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

CAUTION:


The bus bar used in the PC board for this unit serves not only as a ground, but also for +B and -B power sources. Please take care when taking readings.

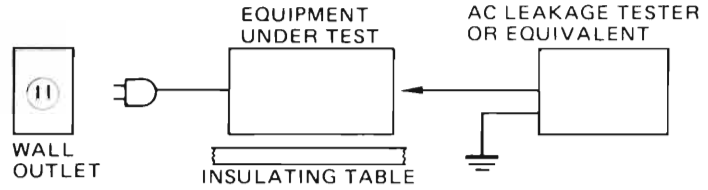
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C-85

■ TO SERVICE PERSONNEL

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



■ SPECIFICATIONS

Input Sensitivity/Impedance

Phone 1 MC	100 μV/100 Ω
MM	2.5 mV/220 P, 47 kΩ
	2.5 mV/330 P, 47 kΩ
Phono 2 MM	2.5 mV/220 P, 47 kΩ
CD/AUX/TAPE/TUNER	150 mV/47 kΩ

Input Sensitivity (New IHF)

Phono MC	33 μV (R.U.C.)
MM	0.83 mV (R.U.C.)
CD/AUX/TAPE/TUNER	50 mV (R.U.C.)

Maximum-Input Signal

1 kHz 0.01% THD (Phono MC)	20 mV (R.U.C.)
(MM)	500 mV (R.U.C.)

Output Level/Impedance

Rec Out	150 mV/600 Ω
Pre Out	1.5 V/47 Ω

Maximum Voltage Output

20 Hz ~ 20 kHz 1% THD	
Pre Out	8.5 V

Headphone Jack Rated Output/Impedance

0.01% THD 1 kHz	6 V/100 Ω
-----------------	-----------

Frequency Response (Tone Bypass ON)

20 Hz ~ 20 kHz	
DAD/AUX/TAPE/TUNER	+0, -0.2 dB

RIAA Equalization Deviation

20 ~ 20 kHz	
(Phono, MC/MM, RIAA)	±0.2 dB (R.U.C.)
10 ~ 100 kHz	
(Phono, MC/MM, RIAA)	±0.5 dB (R.U.C.)

Total Harmonic Distortion

Phono MC to Rec Out 3 V	0.001%
MM to Rec Out 3 V	0.001%
CD/AUX/TAPE/TUNER	
to Pre Out 3 V	0.001%
(Tone Bypass ON)	

(Intermodulation Distortion

CD/AUX/TAPE/TUNER	
5 V Output	0.002% (R.U.C.)
(Tone Bypass ON)	

Signal to Noise Ratio (IHF-A-Network)

Phono MC (500 μV Input Shorted)	91 dB (R.U.C.)
MM (5 mV Input Shorted)	95 dB (R.U.C.)
CD/AUX/TAPE/TUNER	
(150 mV Input Shorted)	106 dB (R.U.C.)
(Tone Bypass ON)	

Signal to Noise Ratio (New IHF)

Phono MC	81 dB
MM	83 dB
CD/AUX/TAPE/TUNER	103 dB

Input Equivalent Noise

Phono MC	-157 dBV
MM	-140 dBV (A.G.B.)

Residual Noise (IHF-A-Network)

	1.5 μV (R.U.C.)
--	-----------------

Channel Separation (Phono MM/AUX, TAPE)

Short/5.1 kΩ	40 Hz, 85 dB/85 dB
	1 kHz, 80 dB/70 dB
	10 kHz, 70 dB/50 dB

Tone Control Characteristics

Parametric Tone Control	
Frequency LOW	31.5 ~ 800 Hz
HIGH	800 ~ 20 kHz
Level LOW, HIGH	±12 dB
Bandwidth LOW, HIGH	Q 0.3 ~ 3.0

Filter Characteristics

Low (Subsonic)	15 Hz, -12 dB/oct.
----------------	--------------------

Continuous Loudness Control (Level-related equalization)

Attenuation	40 dB (1 kHz)
-------------	---------------

Audio Muting

	-20 dB
--	--------

Gain tracking error (0 ~ -60 dB)

	2 dB
--	------

Power Supply

• U.S.A & Canadian models	AC 120V 60 Hz
• Australian, British & European models	AC 220 ~ 240 V 50 Hz
• Other model	AC 110 ~ 120 V 50/60 Hz

Power Consumption

	30 W (R.U.C.)
--	---------------

AC Outlet

Switched	200 W (max) (R.U.C.)
Unswitched	800 W (max) (R.U.C.)

Dimensions (W x H x D)

	435 x 95 x 380 mm
	(17-1/8" x 3-3/4" x 15")

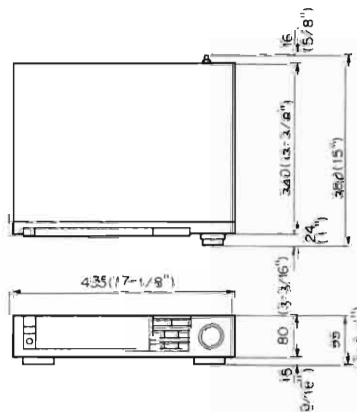
Weight

	6.8 kg (15 lbs)
--	-----------------

* Specifications subject to change without notice.

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

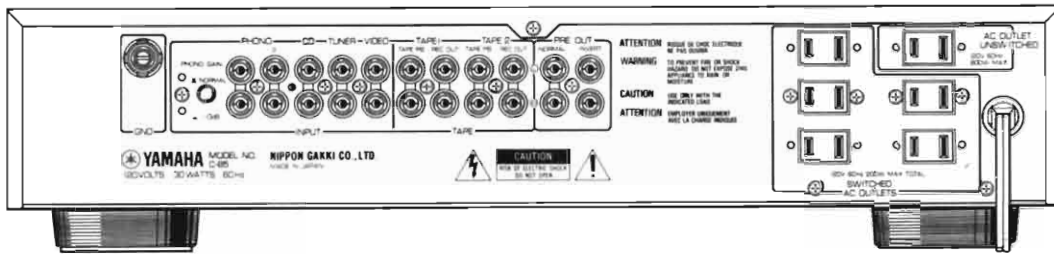
■ DIMENSIONS



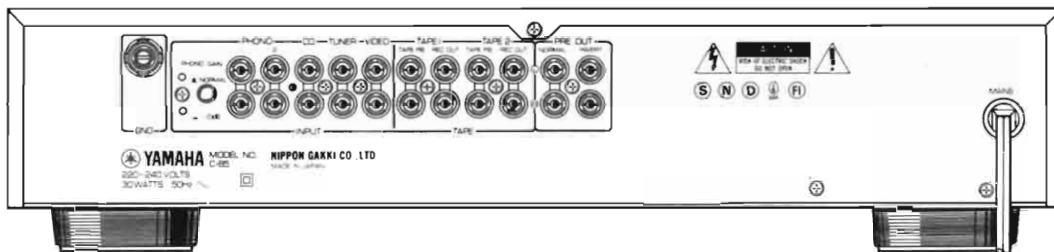
Unit: mm (Inch)

■ REAR PANELS

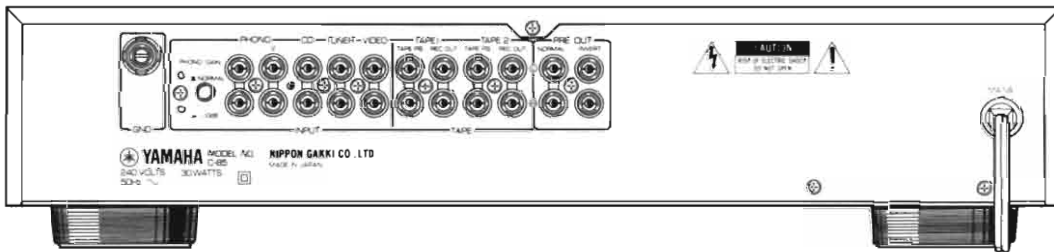
● U.S.A. & Canadian models



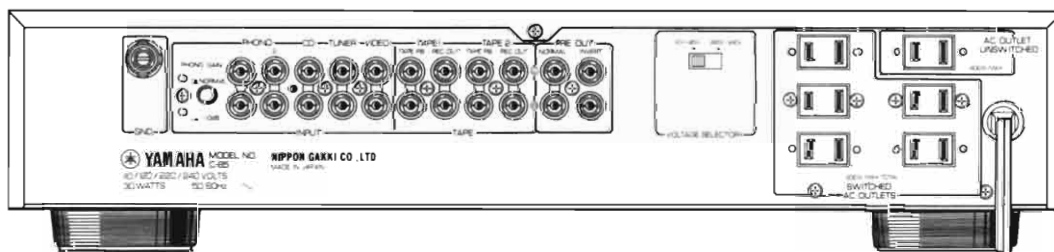
● European model



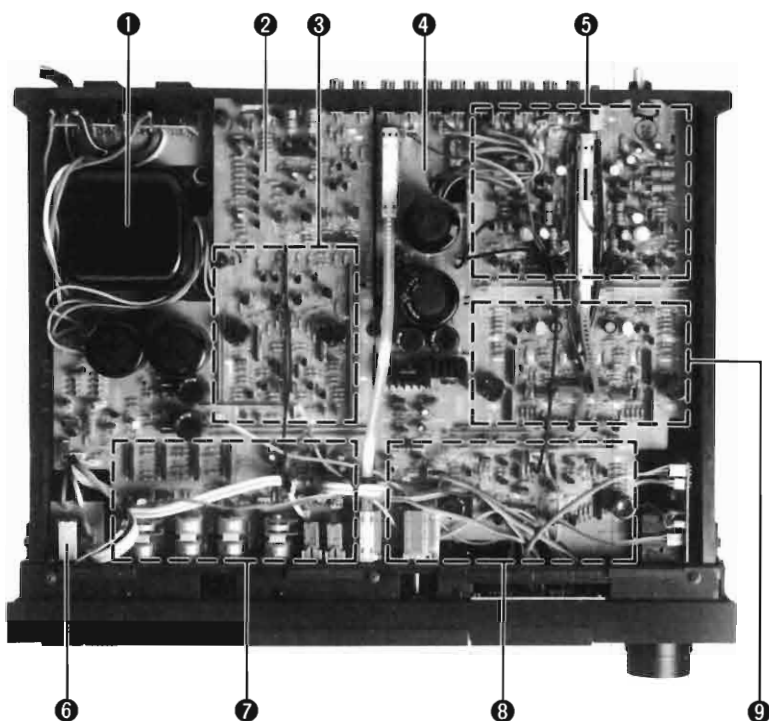
● Australian model



● Others model



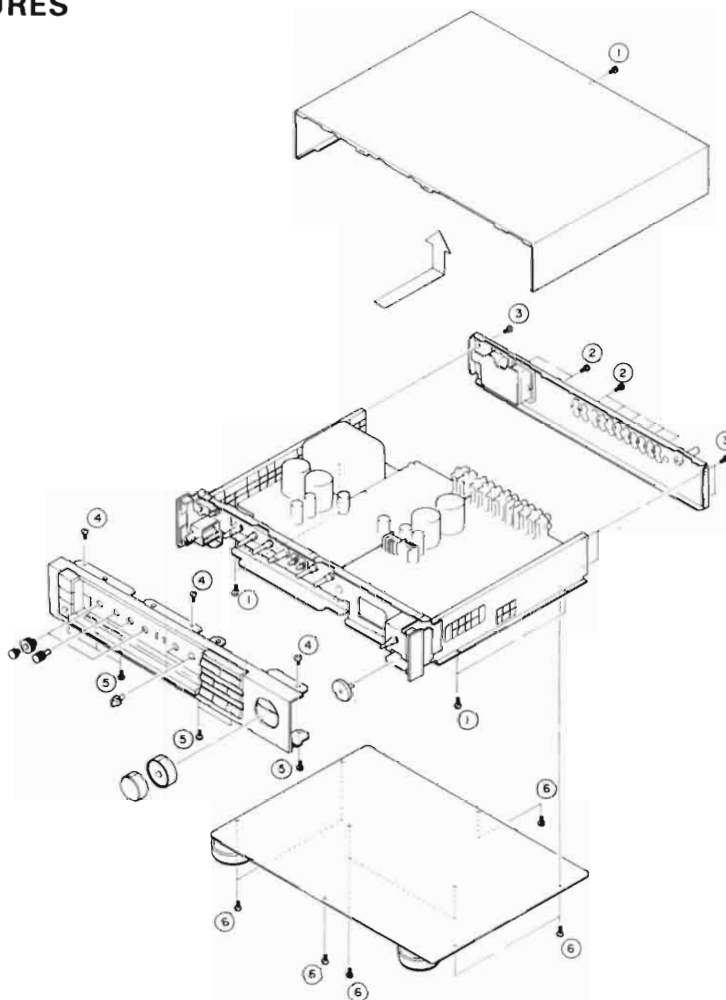
■ INTERNAL VIEW



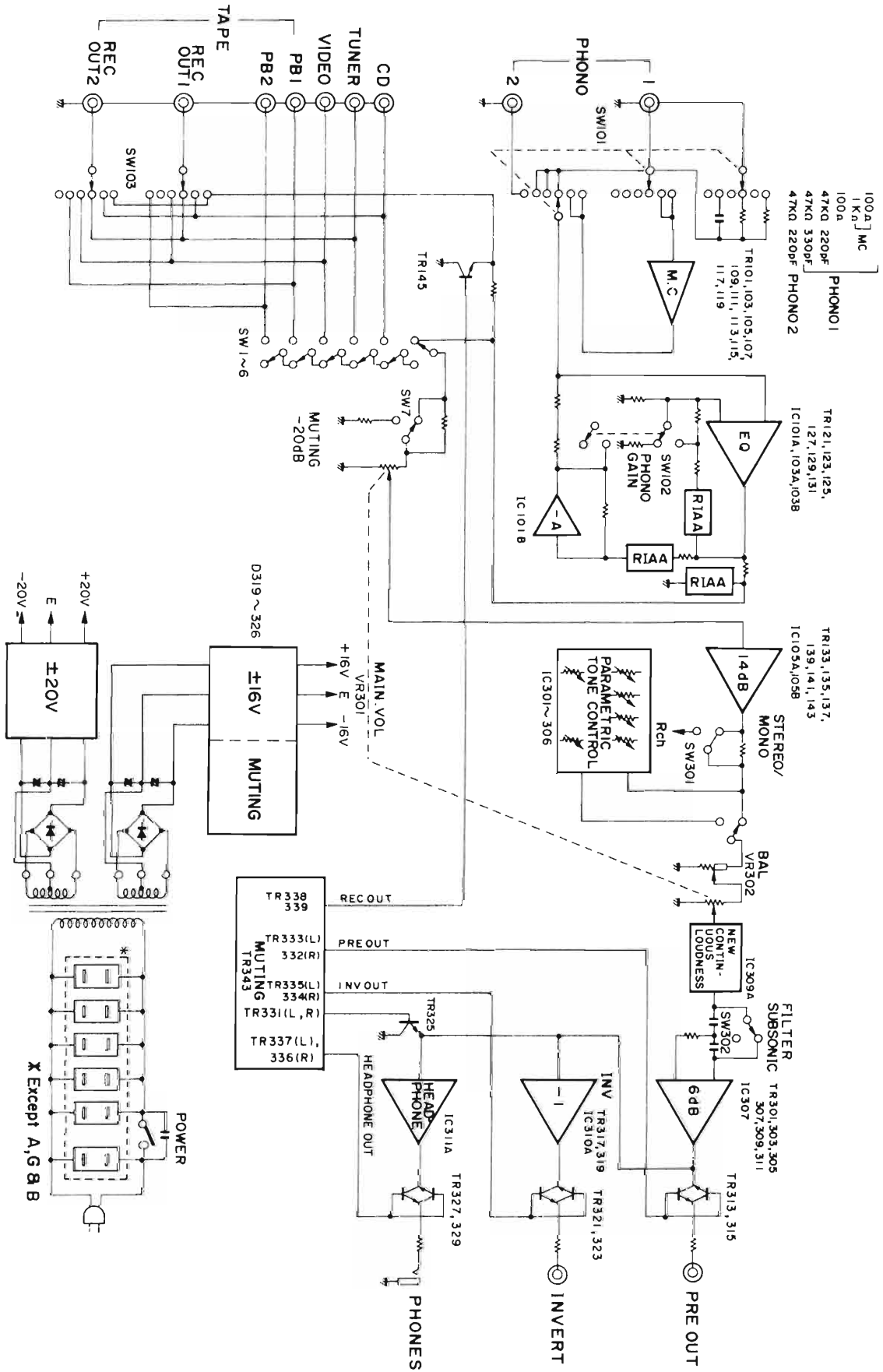
- ① POWER TRANSFORMER
General model: GA67540
U.S.A. & Canadian models: GA67550
Australian & European models: GA67880
- ② TONE CONTROL CIRCUIT BOARD
- ③ 6dB FLAT AMP SECTION
- ④ EQUALIZER CIRCUIT BOARD
- ⑤ MC AMP SECTION
- ⑥ POWER SWITCH
- ⑦ PARAMETRIC TONE CONTROL SECTION
- ⑧ 14dB FLAT AMP SECTION
- ⑨ EQ AMP SECTION

■ DISASSEMBLY PROCEDURES

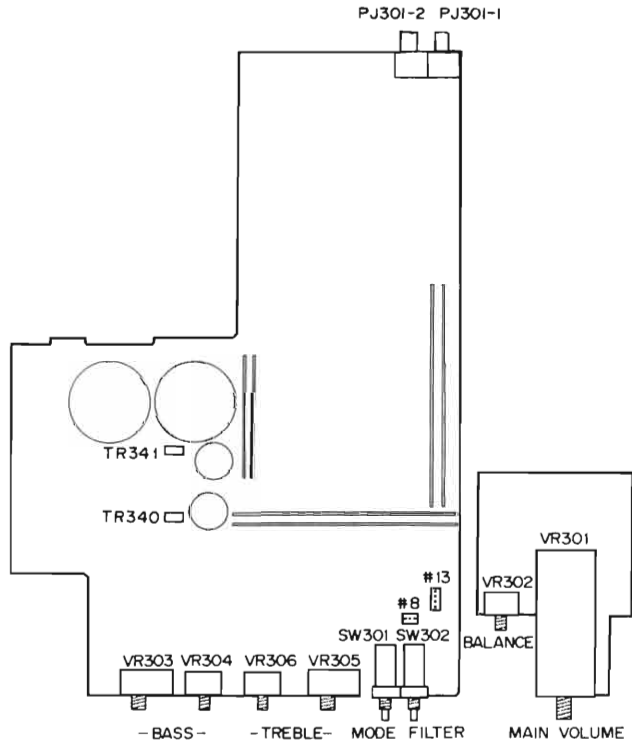
1. Removal of Top Cover
 - a. Remove 5 screws (1) in Fig. 1.
2. Removal of Rear Panel
 - a. Remove 18 screws (2) in Fig. 1.
3. Removal of Bottom cover
 - a. Remove 8 screws (3) in Fig. 1.
4. Removal of Front Panel
 - a. Remove of knobs.
 - b. Remove 12 screws (4) in Fig. 1.



■ BLOCK DIAGRAM



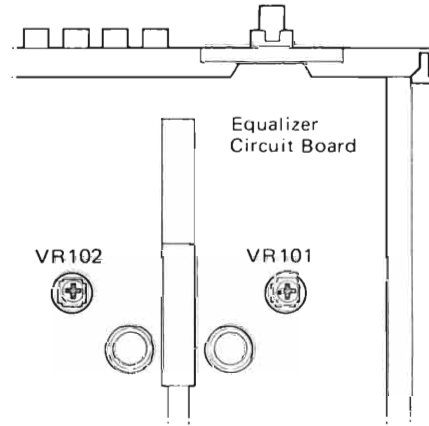
■ ADJUSTMENT POINTS



- Set the controls to the following positions.

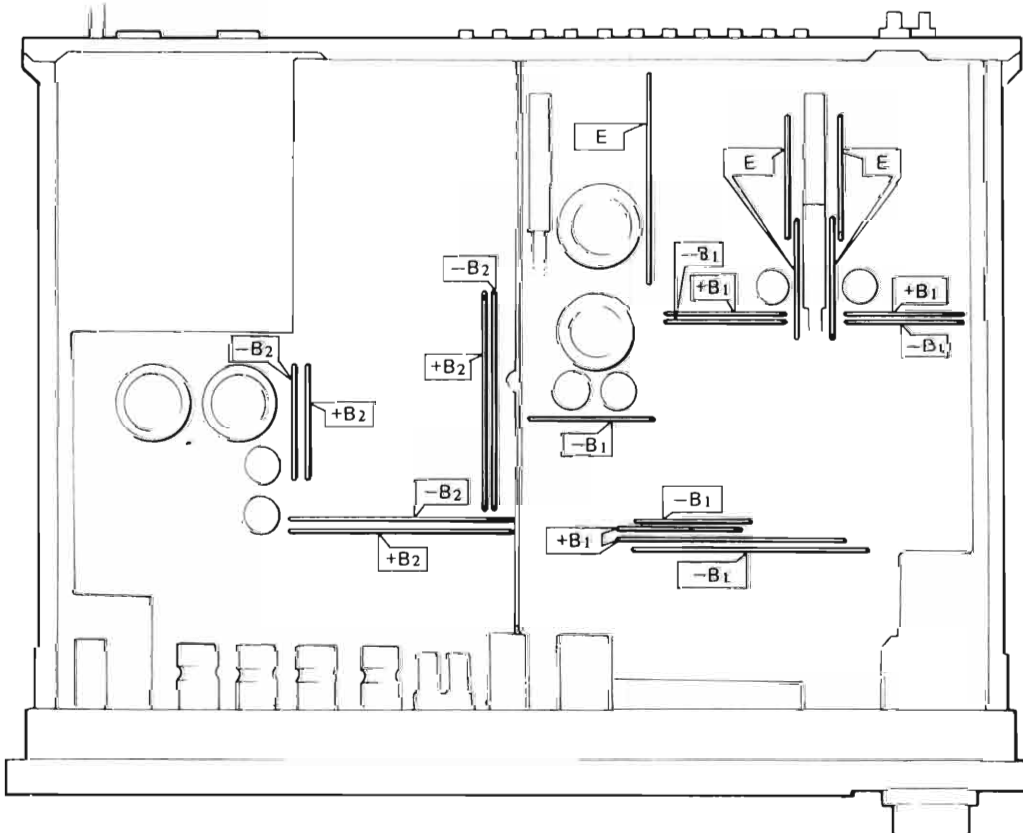
PHONO → MC
REC OUT → PHONO

Adjustment item	Test point	Instrument required	Adjustment points	Rating
MC AMP DC offset	REC OUT	DCVM	VR101 (Lch) VR102 (Rch) [EQUALIZER]	0V±100mV



CAUTION:

The bus bar used in the PC board for this unit serves not only as a ground, but also for +B and -B power sources. Please take care when taking readings.

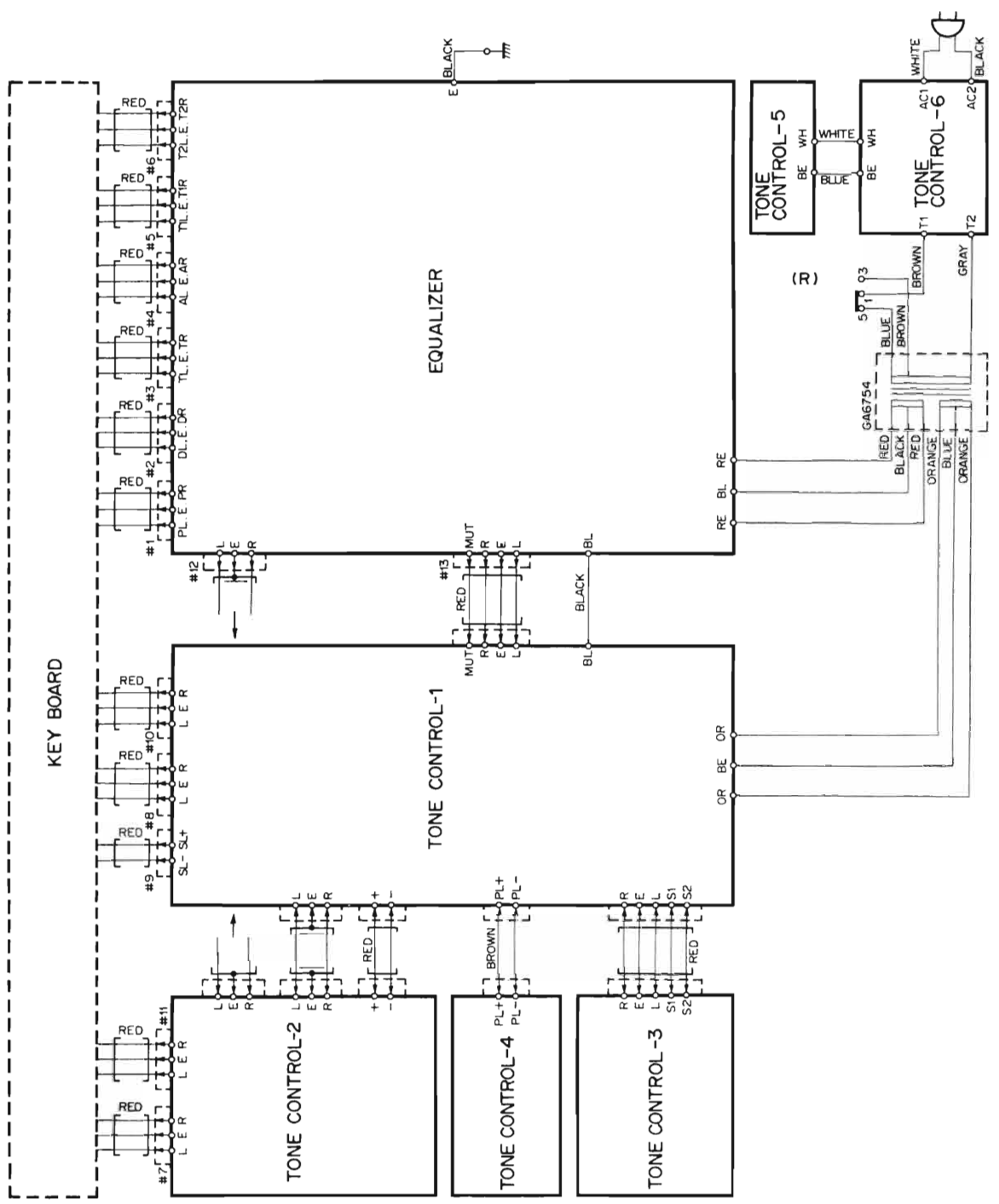
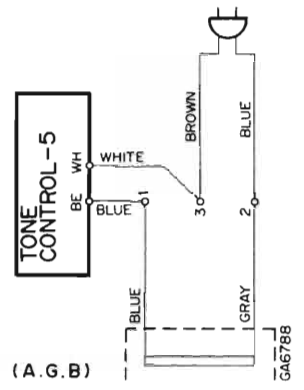
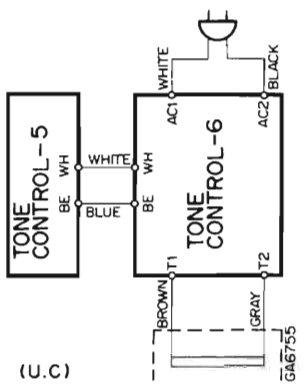


+B ₁	+20V ± 1V
-B ₁	-20V ± 1V
+B ₂	+16V ± 1V
-B ₂	-16V ± 1V
E	GND

■ ADJUSTMENTS

Step	Item	Condition or Procedure	Check Point	Rated Value	Measuring Device	Reference		
1		Connect the secondary lead wires (ORANGE–BLUE–ORANGE) of the Power Transformer to the Terminals of each corresponding color.						
2	Supply Voltage	Apply 120 ± 1 V AC to the primary of Power Transformer	Emitter of Tr340	16 ± 1 V DC	DC VM DC VM			
			Emitter of Tr341	-16 ± 1 V DC				
3	6 dB Flat Amp	Conditions VR302 (BLANCE): Center position VR301A, B (MAIN): Full clockwise VR301C (LOUDNESS): Full clockwise SW301 (SUBSONIC): OFF Input Apply 1 kHz 0.5 V sine wave to Connector #9	PJ301 (Preamp out)	1 ± 0.1 V (1 kHz sine wave)	AC VM			
4	Inverter Amp	Conditions: Same as Step-3	PJ-301-2 (Inverter out)	1 ± 0.1 V (1 kHz sine wave)	AC VM			
5	Headphone Amp	Conditions: Same as Step-3 except that a Headphone Plug is plugged into the Headphone Jack	PJ301 (Preamp out)	0 V	AC VM			
			Headphone Terminal	5 ± 0.5 V				
6	Loudness	Same as Step-3 except VR301C: Fully counterclockwise	PJ301 (Preamp out)	10 ± 2 mV	AC VM			
7	Parametric Tone Control	1. Set the inner shafts of VR303 and VR305 to the center click position. Apply 1 kHz sine wave to Connector #13 and adjust its level to the point obtaining 1 V output on Connector #10. 2. Reset the inner shafts also outer shafts of VR303 and VR305 to the full clockwise position. VR304: Full counterclockwise VR306: Full clockwise 3. At signal frequency						
			40 Hz	Connector #10	$+8$ dB or over	AC VM	0 dB: 1 V	
			15 kHz					
8	Muting	With the same conditions to Step-3, turn off the AC 120 V power supply. When turned it on again:	PJ301 (Preamp out)	The output must be recovered in 5 ± 1 second.	AC VM			
9	Subsonic Filter	Same as Step-3 except: (a) 15 Hz input signal (b) SW302 – ON	PJ301 (Preamp out)	-3 ± 1 dB	AC VM	Output level with SW302 –OFF as 0 dB		
10	Mode	Apply 1 kHz 1 V input signal to L ch of Connector #13. SW301 (Mode)	OFF	R ch of Connector #8	Less than 10 mV	AC VM	The opposite channel should be same.	
			ON					0.5 ± 0.1 V

■ WIRING



PRINTED CIRCUIT BOARD (Pattern Side)

Note) 文字面 : Component Side

EQUALIZER CIRCUIT BOARD

1

2

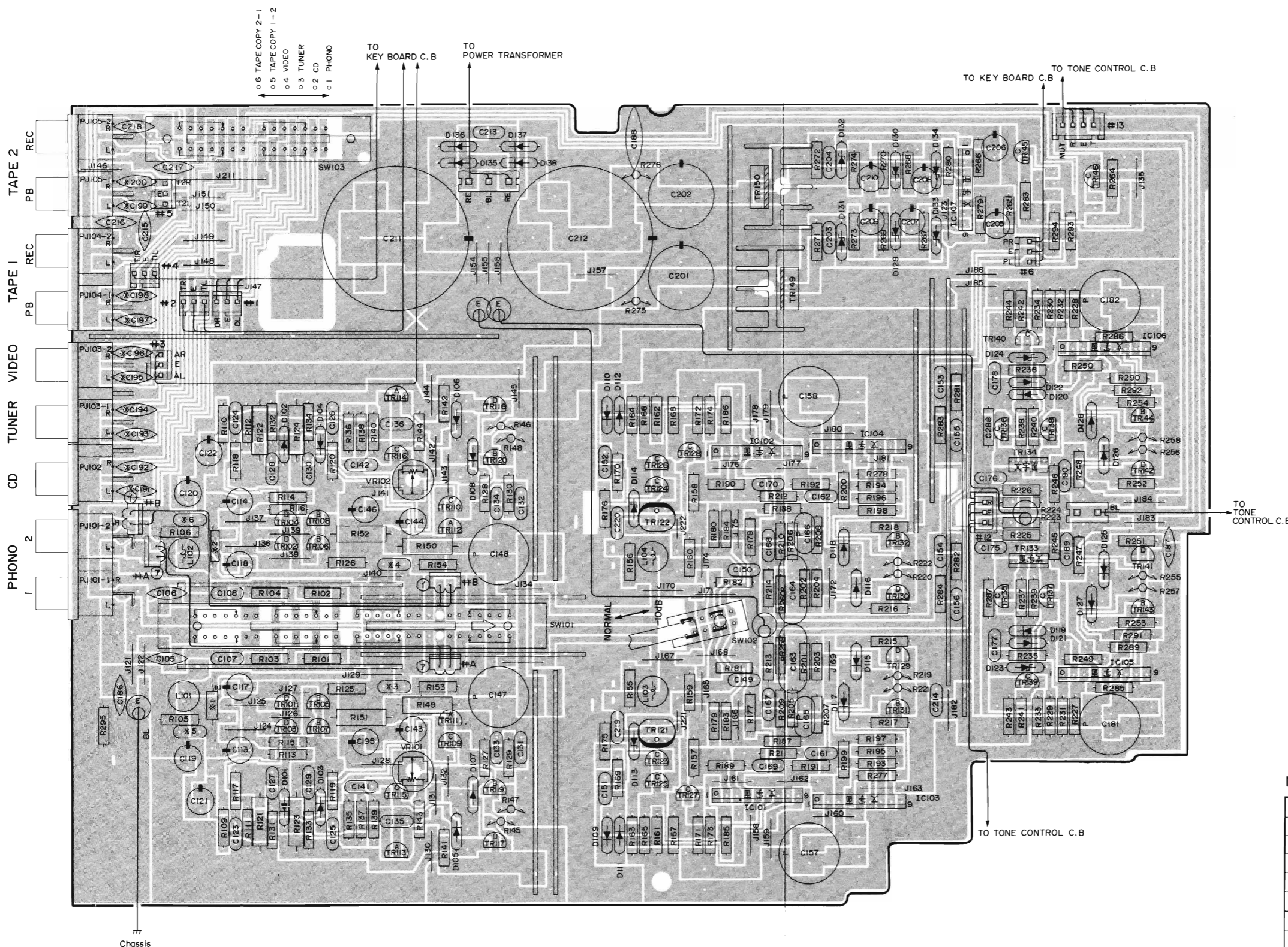
3

4

5

6

7



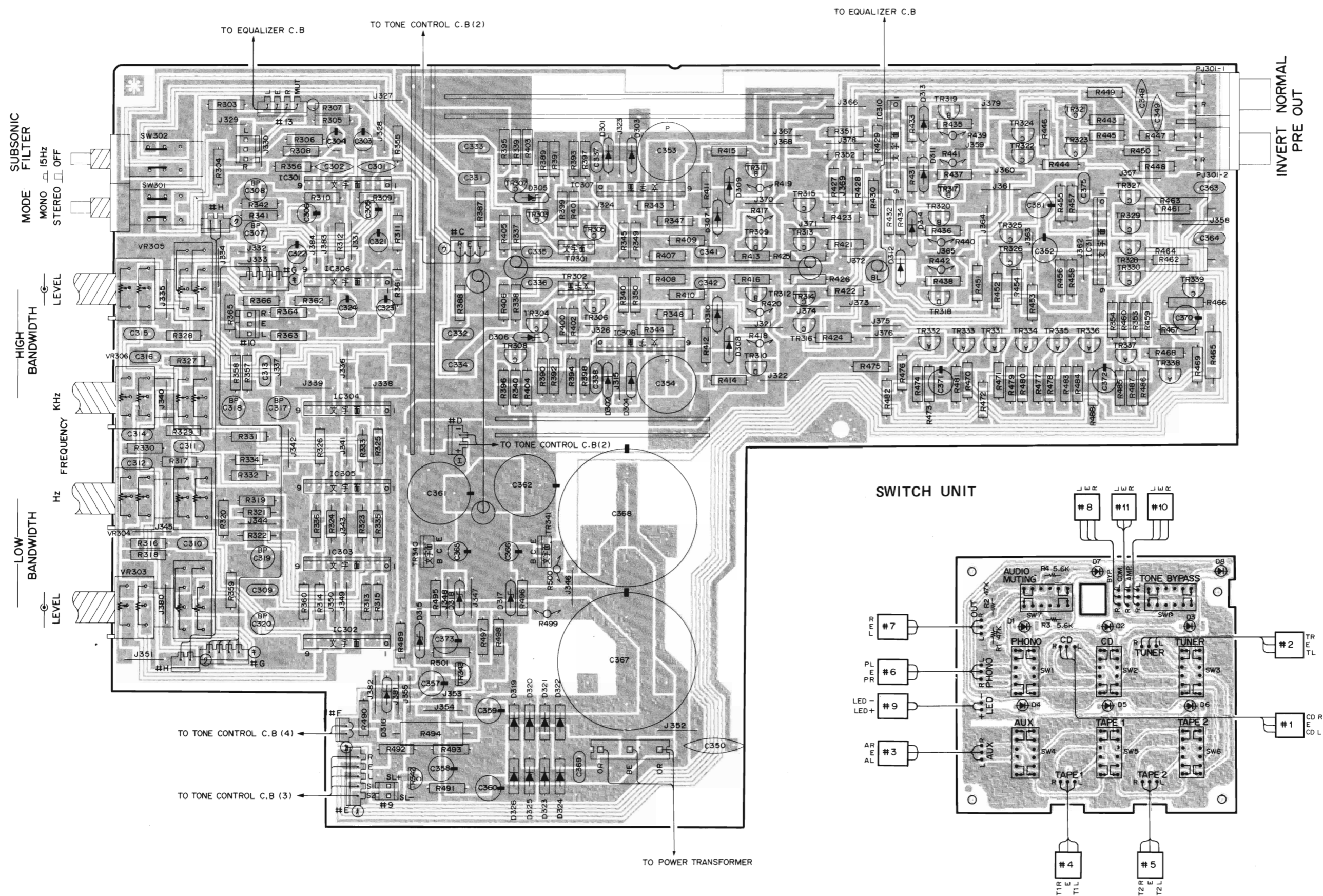
Note 1: * marked

*	R.U.C	A.G.B
C105, 106		2200P
C191~200, 215~218		220P
C186, 187		0.01
C219, 220		82P
C105, 106		2200P
C109	*3	*5
C110	*4 (0.01)	*6 (0.018)
L101, 102		15μH
R295		4.7
R107, 108	SHORT	*1, *2(220)
R155, 156	220	1.5K

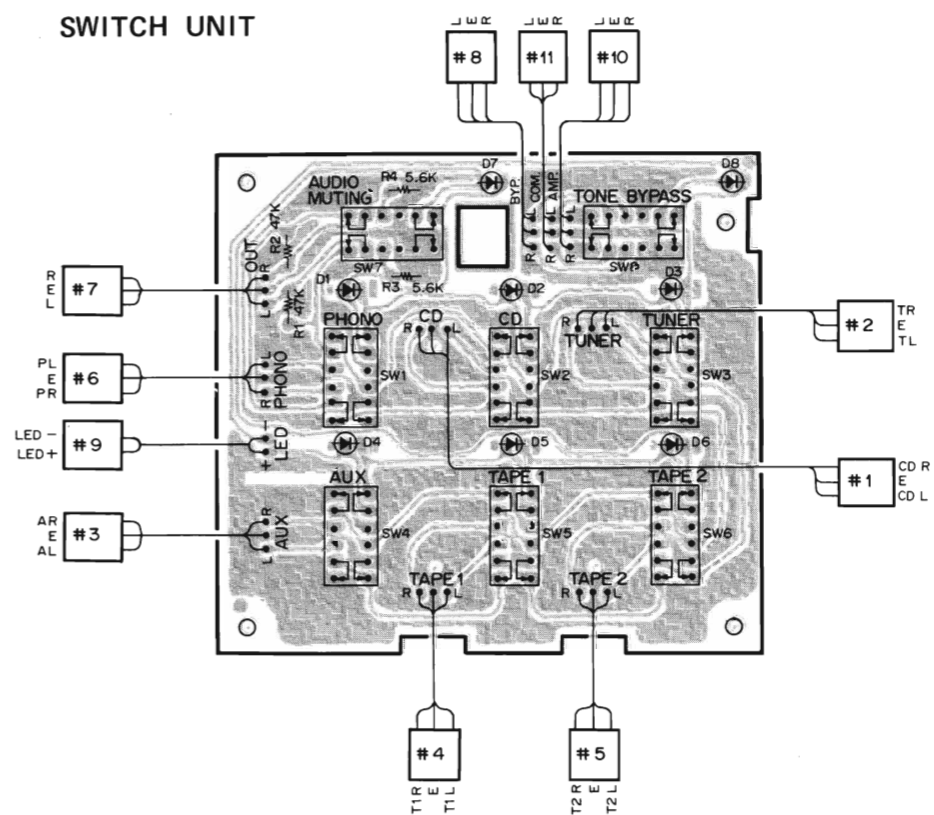
PRINTED CIRCUIT BOARD (Pattern Side)

Note) 文字面: Component Side

1 TONE CONTROL CIRCUIT BOARD (1)



SWITCH UNIT

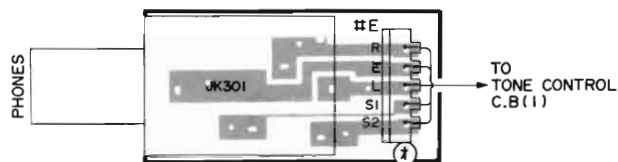


PRINTED CIRCUIT BOARD (Pattern Side)

1

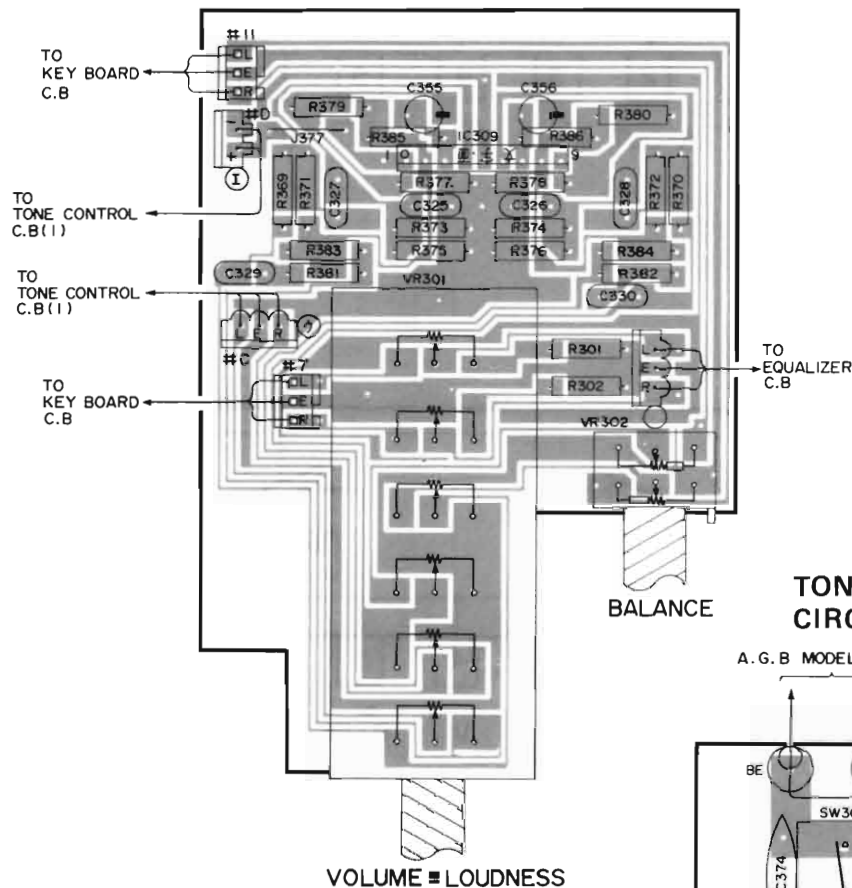
Note)
文字面 : Component Side

TONE CONTROL CIRCUIT BOARD (3)



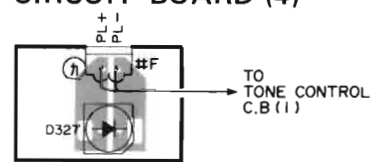
2

TONE CONTROL CIRCUIT BOARD (2)



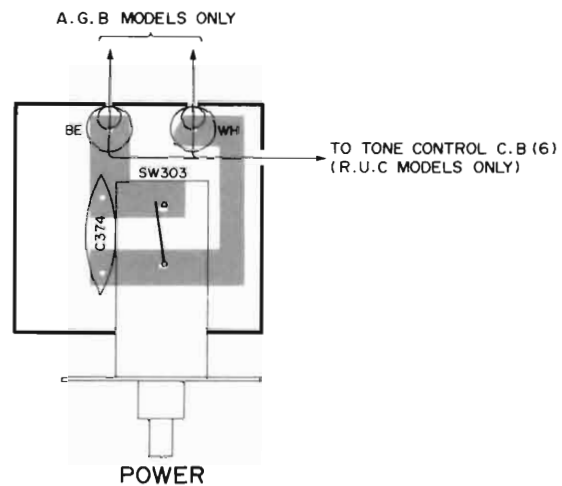
3

TONE CONTROL CIRCUIT BOARD (4)



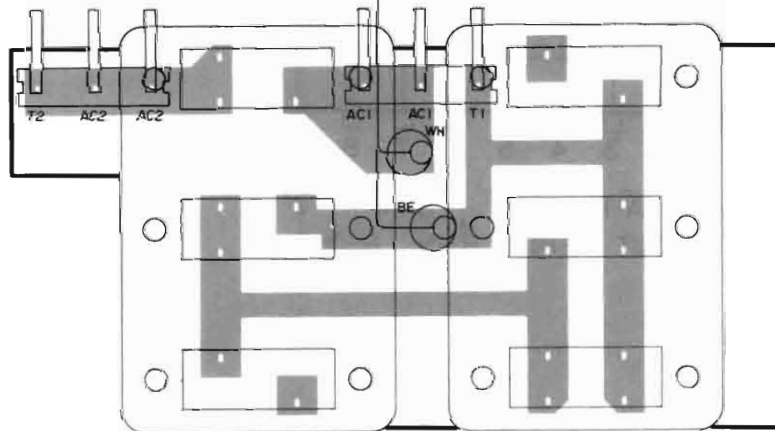
4

TONE CONTROL CIRCUIT BOARD (5)



5

TO TONE CONTROL C.B (5)
(R.U.C MODELS ONLY)



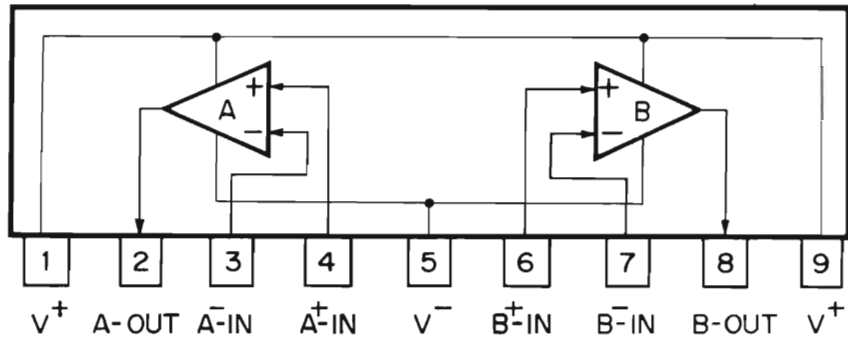
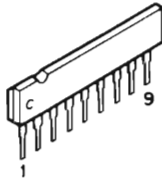
6

TONE CONTROL CIRCUIT BOARD (6) ... R, U, C Models only

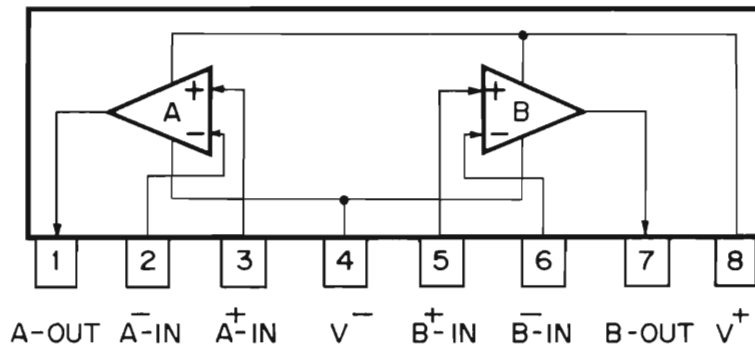
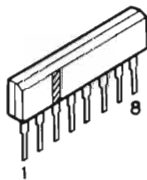
7

■ IC BLOCK DIAGRAM

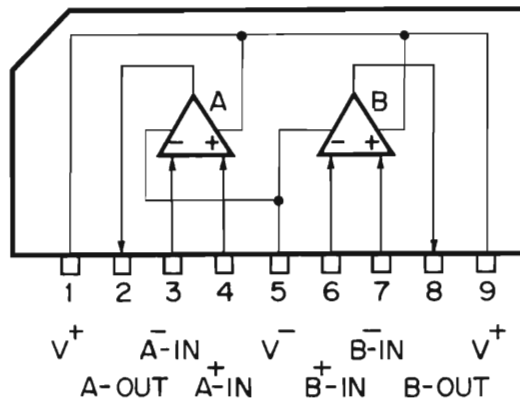
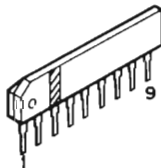
IC301, 303
 IC305, 306
 NJM4560S
 BA4561S



IC101, 102
 M5219L
 IC107
 M5220L

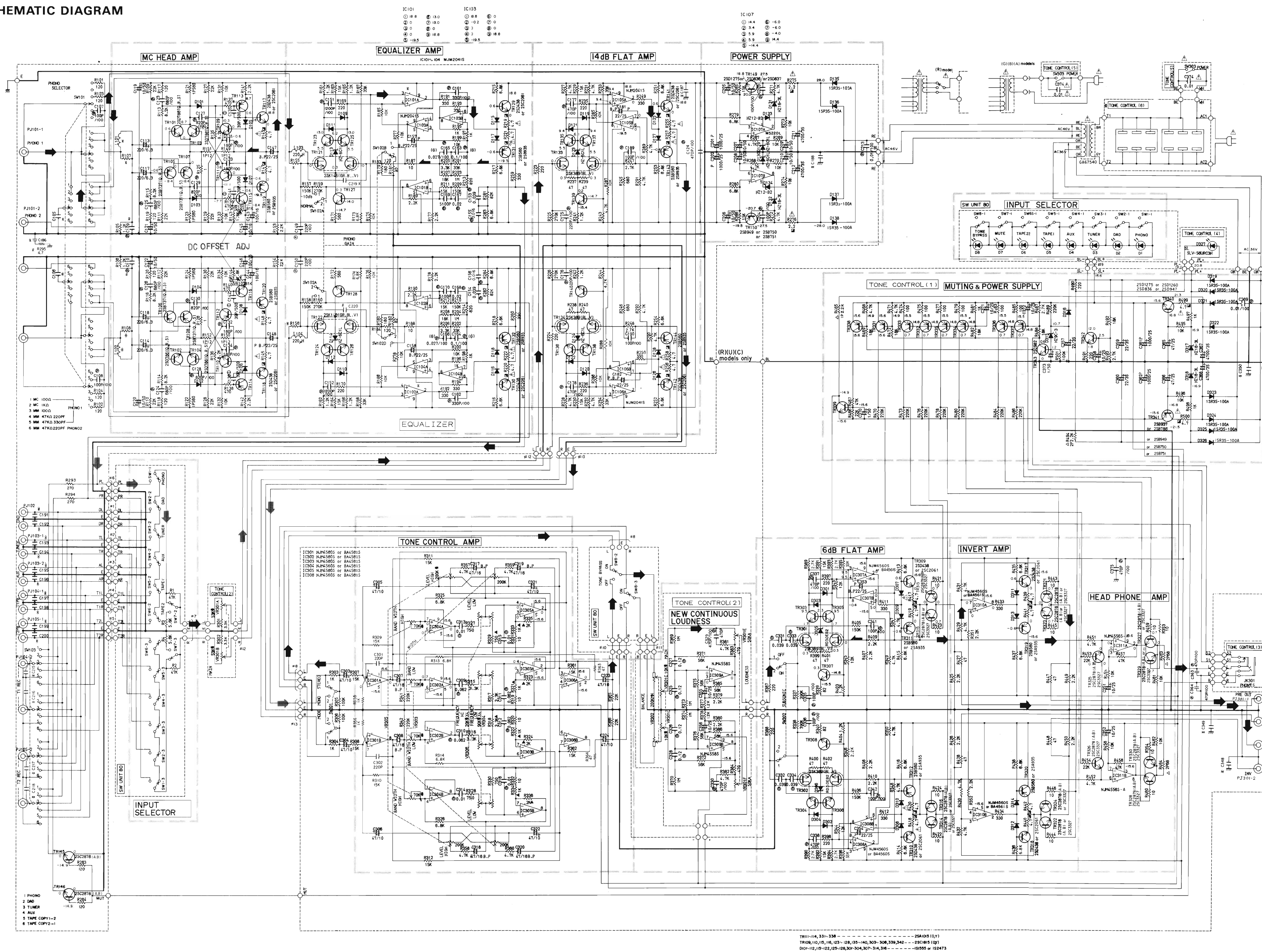


IC101 ~ 106
 IC307, 308
 NJM2041S
 IC309
 NJM4558S
 IC311
 NJM4556S-A



C-85

■ SCHEMATIC DIAGRAM



Power Supply Voltage Table

POINT	VOLTAGE
TR149 EMITTER	+20V ± 1V
TR150 EMITTER	-20V ± 1V
TR340 EMITTER	+16V ± 1V
TR341 EMITTER	-16V ± 1V

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

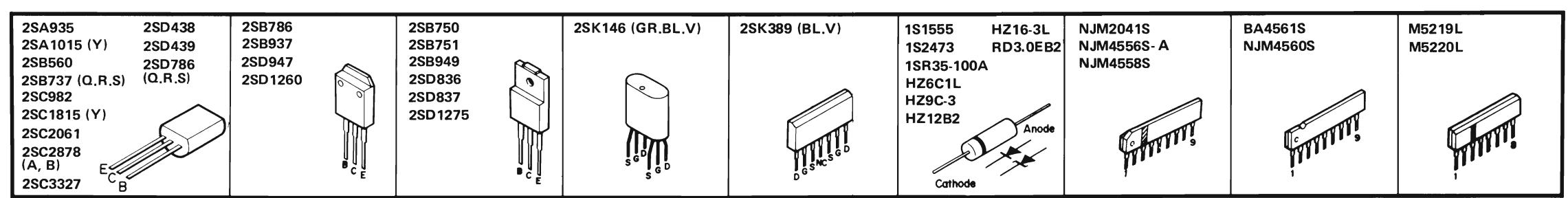
* marked

*	R.U.C	A.G.B
C188, 350	OPEN	0.01/500
C186, 187, 348, 349	OPEN	0.01
C105, 106	OPEN	2200P/100
C191~200, 215~218	OPEN	220P
C219, 220	OPEN	82P/500
C109, 110	0.01/100	0.018/100
L101, 102	OPEN	15μH
R107, 108	SHORT	220
R155, 156	220	1.5K
R295	OPEN	4.7
IC101, 102	NJM2041S	M5219L

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	POLYESTER FILM CAPACITOR (MYLAR)
○	POLYSTYRENE FILM CAPACITOR
⊖	MICA CAPACITOR
⊕	POLY PROPYLENE FILM CAPACITOR
●	SEMICONDUCTIVE CERAMIC CAPACITOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
⊠	METAL PLATE RESISTOR
■	FIRE PROOF CARBON FILM RESISTOR
□	SEMANT MOLDED RESISTOR
⊗	SEMI VARIABLE RESISTOR
⊚	1/6W CARBON FILM RESISTOR

■ PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODE AND ICs.



CAUTION

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

PARTS LIST

■ ELECTRICAL PARTS

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	NA 09:02:40	Equalizer Circuit Board Assy	イコライザーシート			R.U.C	
※	NA 09:02:50	//	//			A.G.B	
※	FH 23:41:00	Ceramic Cap.	セラコン	C188		A.G.B	
	FG 41:22:20	//	//	C191~200, 215~218		A.G.B	
	FG 44:41:00	//	//	C186, 187		A.G.B	
	FU 35:13:90	FE Mica Cap.	F E マイカコン	C135, 136, 141, 142			
	FU 35:18:20	//	//	C219, 220		A.G.B	
	FV 44:91:00	Electrolytic Cap.	ケミコン	C201, 202			
	FZ 00:49:90	//	B P コン	C147, 148, 157, 158, 181, 182			
※	VB 28:89:00	Electrolytic Cap.	ブロックケミコン	C211, 212			
※	FA 15:35:10	Mylar Cap.	マイラコン	C169, 170			
	UA 25:41:60	//	//	C155, 156			
	UA 25:42:00	//	//	C167, 168			
	UA 25:43:90	//	//	C153, 154			
	UJ 11:82:20	Electrolytic Cap.	ケミコン	C113, 114, 117, 118			
	UM 04:81:00	//	//	C143~146			
	UM 07:71:00	//	//	C119~122, 205~210			
	UT 46:42:70	Polypropylene Film Cap.	ポリプロコン	C165, 166			
	UT 46:51:00	//	//	C163, 164			
	UT 45:21:00	//	//	C107, 108, 189, 190, 203, 204			
	UT 45:21:80	//	//	C131~134			
	UT 45:22:20	//	//	C149, 150, 175, 176			
	UT 45:23:30	//	//	C161, 162			
	UT 45:24:70	//	//	C177, 178, 214			
	UT 45:26:80	//	//	C123~126			
	UT 45:28:20	//	//	C127~130			
	UT 45:31:20	//	//	C151, 152			
	UT 45:32:20	//	//	C105, 106			
	UT 45:41:00	//	//	C213			
	UT 45:41:00	//	//	C109, 110		R.U.C	
※	UT 65:41:80	//	//	//		A.G.B	
	GE 90:03:30	Coil	チョークコイル	L103, 104			
	GE 90:08:40	//	コイル	L101, 102			
	HT 41:00:20	Potentiometer	ソリッドVR	VR101, 102			
	HV 45:32:20	Flame Prot Carbon Resistor	不燃カーボン抵抗	R275, 276			
	HV 45:34:70	//	//	R145~148 219~222, 255~258			
	HZ 00:44:50	Carbon Resistor	カーボン抵抗	R149~152			
	HZ 00:44:60	//	//	R121~124			
	iA 10:15:21	Transistor	トランジスタ	TR111~114			
	iB 07:50:00	//	//	TR150			
	iC 18:15:20	//	//	TR109, 110, 115, 116 123~128, 135~140			
	iC 33:27:00	//	//	TR145, 146			
	iD 12:75:10	//	//	TR149			
	iB 05:60:00	//	ベアトランジスタ	TR119, 130, 131 132, 143, 144	Inter- changeable		
	iX 60:32:80	//	//	//			
	iD 04:38:00	//	//	TR117, 118, 129 130, 141, 142	Inter- changeable		
	iX 60:32:90	//	//	//			
	iB 07:37:00	//	//	TR105~108			

※New Parts (新規部品)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	iD 07 86 00	Transistor	2SD786(Q,R,S)	ベアトランジスタ	TR101~104		
	iE 10 22 40	FET	2SK146(GR,BL,V)	F E T	TR121,122		
	iE 10 45 10	//	2SK389(BL,V)	デュアル F E T	TR133,134		
	iF 00 06 70	Diode	IS2473	ダイオード	D101~112,115~122 125~128	Inter- changable	
	iF 00 00 40	//	IS1555	//	//		
	iH 00 14 30	//	1SR35=100A	//	D135~138		
	iF 00 15 10	Zener Diode	HZ6CIL	ツェナーダイオード	D113,114,123,124 129,130		
	iF 00 20 80	//	HZ16-3L	//	D131,132		
	iF 00 23 50	//	HZ12B2	//	D133,134		
	iG 07 69 00	IC	NJM2041S	I C	IC101,102	Inter- changable	
	iG 09 21 00	//	M5219L	//	//		
	iG 07 69 00	//	NJM2041S	//	IC103~106		
	iG 09 20 00	//	M5220L	//	IC107		
	KA 90 68 60	Push Switch		リモートプッシュSW	SW102		
	KA 90 69 10	Rotary Switch		リモートロータリーSW	SW103		
	KA 90 69 20	//		//	SW101		
	LB 20 25 60	Pin Jack	2P	ピンジャック	PJ102		
	LB 40 12 90	//	4P	//	PJ104,105		
	LB 40 13 00	//	4P	//	PJ101		
	LB 40 13 10	//	4P	//	PJ103		
	LA 00 21 20	Wrapping Terminal I-Type	P=5 3P	I型ラッピング端子板			
	LB 91 80 30	Base Pin I-Type	3P	I型ベースピン			
	LB 91 80 40	//	4P	//			
	LB 92 10 30	Connector Plug	3P	I型LPコネクタプラグ			
	LA 00 21 10	Wrapping Terminal I-Type	P=5 2P	I型ラッピング端子板			
	AA 62 18 30	Holder, Switch		ゲインSWホルダー			
	BA 08 09 10	Heat Sink	IC-2425	放 熱 板			
	BB 07 04 10	Bus Bar	φ=55	バ ス バ ー			
	BB 07 04 20	//	φ=100	//			
	ED 33 00 66	Binding Head Screw	3×6 FCRM3-Bφ	バインド小ネジ	PACK		
	NA 09 02 90	Tone Control Circuit Board Ass'y		トーンコントロールシート			R
	NA 09 03 00	//		//			U.C
	NA 09 03 10	//		//			A.G.B
	FH 23 41 00	Ceramic Cap.	0.01μF 500V	セラコン	C350		
	Fi 41 41 00	//	0.01μF	//	C374		
	Fi 19 22 20	//	220F 50V	//	C301,302		
	Fi 51 41 00	//	0.01μF 50V	//	C348,349		
	FV 44 91 00	Electrolytic Cap.	1000F 25V	プラスチックケミコン	C361,362		
	FZ 00 49 90	//	22μF 25V	//	C353,354		
	FZ 00 46 20	//	47μF 16V	B. P. ケミコン	C307,308,317~320		
	FZ 00 61 50	//	4700P 35V	ブロックケミコン	C367,368		
	UA 25 41 00	Mylar Cap.	0.01μF 50V	マイラーコン	C313~316		

*New Parts (新規部品)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	UA 25 43 90	Mylar Cap.	0.039 μ F	マイラコン	C331~334		
	FA 15 46 20	//	0.062 μ F	//	C309~312		
	FA 15 51 20	//	0.12 μ F	//	C325~328		
	UM 05 71 00	Electrolytic Cap.	10 μ 25V	超小型ケミコン	C351,352,358 371,372		
	UJ 45 72 20	//	22 μ 35V	//	C357,359,360		
	UJ 16 61 00	//	1 μ 50V	//	C370,373		
	UM 03 74 70	//	47 μ 10V	オーディオケミコン	C303~306,321~324		
	UM 05 71 00	//	10 μ 25V	//	C355,356		
	UM 05 74 70	//	47 μ 25V	//	C365,366		
	UT 45 21 00	Polypropylene Film Cap.	100P	ポリプロコン	C335,336,341,342		
	UT 45 24 70	//	470P	//	C329,330,337,338 363,364,375		
	UT 45 41 00	//	0.01 μ F	//	C369		
	HL 32 46 80	Metal Oxide Film Resistor	68 Ω	酸金抵抗	R463,464		
	HL 32 62 20	//	2.2k Ω	//	R494		
	HL 31 62 20	//	2.2k Ω	//	R465		
	HS 41 22 20	Potentiometer	90k \times 4	V R / ジク 4 連	VR304		
	HS 41 22 30	//	20k \times 4	//	VR306		
	HS 41 22 30	//	70k \times 2+200k \times 2	//	VR303,305		
	HS 41 22 50	//	20kMN	//	VR302		
	HY 00 18 90	Flame Proof Carbon Resistor	(50k+10k+53k) \times 2	ミニディテントVR	VR301		
	HU 57 61 00	Metal Film Resistor	1k Ω	金属ヒマク抵抗	R321,322,333,334		
	HU 57 62 00	//	2k Ω	//	R323,324,335,336		
	HV 45 34 70	Flame Proof Carbon Resistor	4.7 Ω	不燃化カーボン抵抗	R417~420,439~442 439,500		
	iA 10 15 21	Transistor	2SA1015(Y)	トランジスタ	TR331~338		
	iB 07 86 00	//	2SB786	//	TR341	} Inter- changeable	
	iB 09 37 00	//	2SB937	//	//		
	iC 09 82 00	//	2SC982	//	TR343		
		//	2SC1815(Y)	//	TR303~308 339,342		
	iD 09 47 00	//	2SD947	//	TR340	} Inter- changeable	
	iD 12 60 00	//	2SD1260	//	//		
	iB 05 60 00	//	2SB560	//	TR311,312 319,320	} Inter- changeable	
	iX 60 32 80	//	2SA935	//	//		
	iD 04 38 00	//	2SD438	//	TR309,310 317,318	} Inter- changeable	
	iX 60 32 90	//	2SC2061	//	//		
	iE 10 45 10	FET	2SK389(BL.V)	デュアルFET	TR301,302		
	iF 00 06 70	Diode	IS2473	ダイオード	D301~304 307~314,316	} Inter- changeable	
	iF 00 00 40	//	IS1555	//	//		
	iH 00 14 30	//	1SR35-100A	//	D319~326		
	iF 00 20 80	Zener Diode	HZ16-3L	ツェナーダイオード	D317,318		
	iF 00 18 40	//	RD3.0EB2	//	D305,306		
	iF 00 33 20	//	HZ9C-3	//	D315		
	iF 00 44 40	LED	SLV-56URC3H	L E D	D327		
	iG 07 68 00	IC	NJM4558S	i C	IC309		
	iG 07 69 00	//	NJM2041S	//	IC307,308		
	iG 07 74 00	//	NJM4556S	//	IC311		
	iG 12 18 00	//	NJM4560S	//	IC301~306,310	} Inter- changeable	
	iG 13 30 00	//	BA4561S	//	//		

※ New Parts (新規部品)

MECHANISM EXPLODED VIEW

1

2

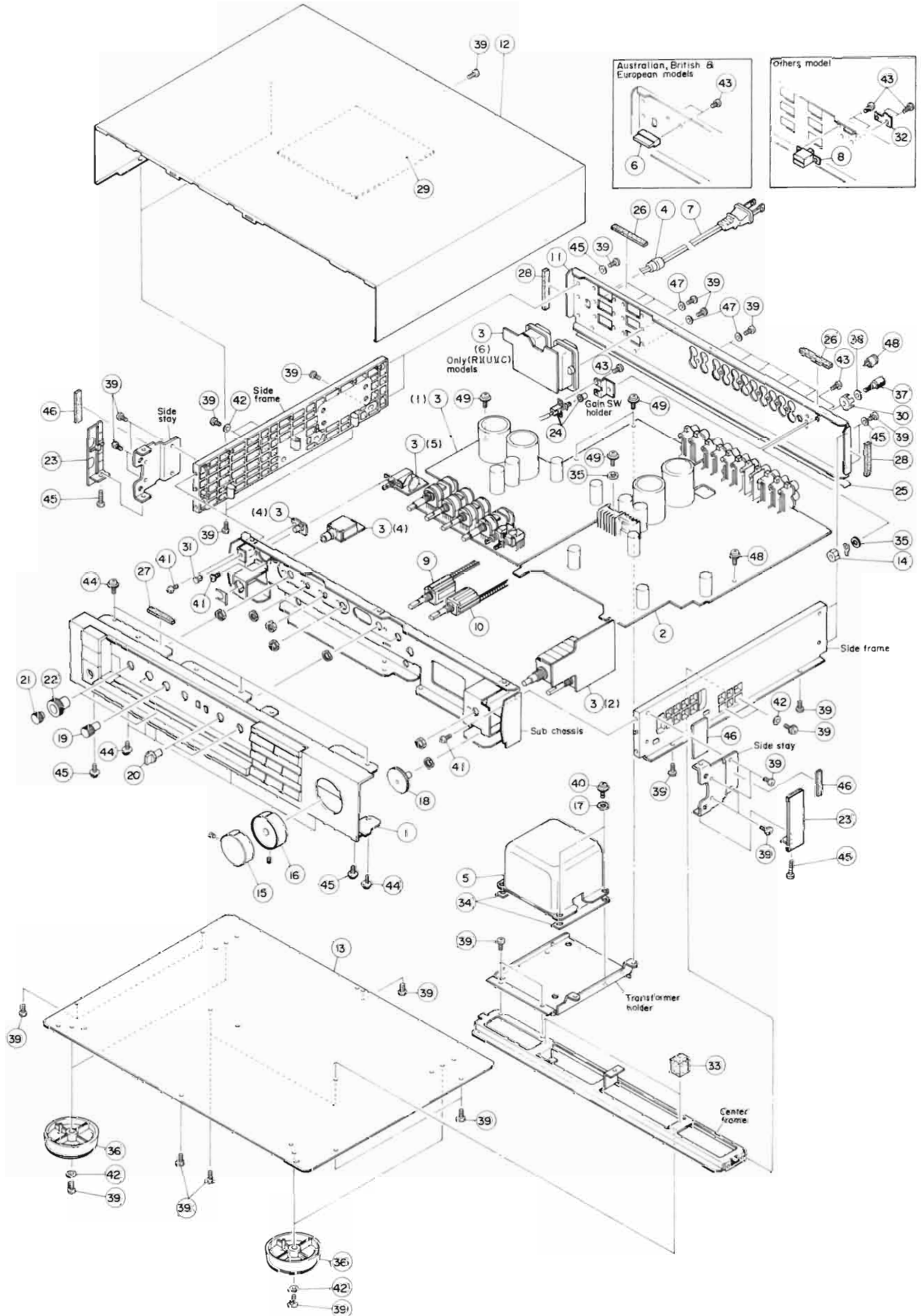
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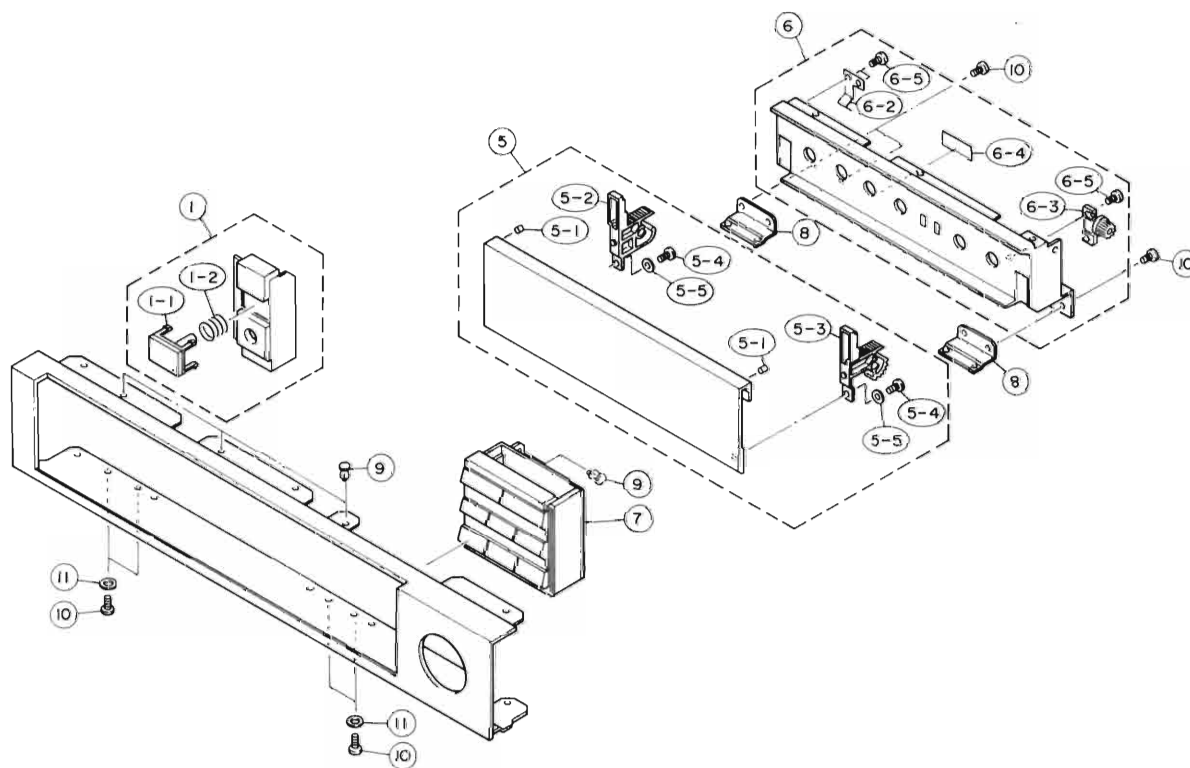
MECHANISM PARTS

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
※ 1	NB:63:40:00	Panel Unit	パネルユニット				
※ 2	NA:09:02:40	Equalizer Circuit Board	イコライザーシート			R.U.C	
※ //	NA:09:02:50	//	//			A.G.B	
※ 3	NA:09:02:90	Tone Control Circuit Board	トーンコントロールシート			R	
※ //	NA:09:03:00	//	//			U.C	
※ //	NA:09:03:10	//	//			A.G.B	
4	CB:07:27:50	Cord Stopper	SR-4N-N	コードストッパー		U.C	
//	CB:62:01:90	//	CM-22B	//		R.A.G.B	
5	GA:67:54:00	Power Transformer		電源トランス		R	
//	GA:67:55:00	//		//		U.C	
//	GA:67:88:00	//		//		A.G.B	
6	LA:00:10:00	Terminal Lug	CV-3P 94V-O	ラグ端子板		A.G.B	
7	MG:00:09:20	Power Cord	7.5A 250V 2.5m	電源コード	Inter-changeable	A	
//	MG:00:14:90	//	7.5A 250V 2.5m	//		A	
//	MG:00:23:80	//	13A 125V 1.98m	//		U.C	
//	MG:00:16:20	//	2.5A 250V 2m	//		G.B	
//	MG:00:16:30	//	6A 250V 2m	//		R	
8	KA:40:12:60	Slide Switch	SS-12 5A/40A	スライドスイッチ		Voltage Selector	R
9	KA:90:68:70	Remote Rotary Actuator		リモートスイッチ操作部	RECOUT		
10	KA:90:68:80	//		//	PHONO		
※ 11	AA:62:97:10	Rear Panel		リアパネル		R	
※ //	AA:62:97:20	//		//		U.C	
※ //	AA:62:97:30	//		//		A	
※ //	AA:62:97:40	//		//		G.B	
12	AA:62:18:00	Top Cover		トップカバー		C-80	
13	AA:62:18:10	Bottom Cover		ボトムカバー		C-80	
14	AA:09:57:20	Bonding Nut		ボンディングナット			
15	BA:08:98:40	Knob		ツマミ	VOLUME	C-80	
16	BA:08:98:50	//		//	LOUDNESS	C-80	
17	CB:62:30:40	Isolation Bush		絶縁ブッシュ			
18	CB:62:99:30	Knob		ツマミ	BALANCE	C-80	
19	CB:62:08:20	//		//	FREQUENCY	A-1000	
20	CB:62:08:40	//		//	REC OUT, PHONO	A-1000	
21	CB:62:99:40	W,Knob (A)		W ツマミ (A)	LEVEL	C-80	
22	CB:62:99:50	// (B)		// (B)	BANDWIDTH	C-80	
23	CB:60:76:90	Side Plate		サイドプレート		C-70	
24	CB:62:72:40	Gain Switch, MM		MMゲインスイッチ	PHONO GAIN	C-2X	
25	CB:62:33:60	Isolation Spacer		絶縁スペーサー			
26	CB:62:38:70	Rubber, Antivibration		防振ゴム			
27	CB:60:50:60	Damper		ダンパー			
28	CB:60:95:40	//		//			
29	CB:61:84:40	//		//			
30	CB:07:81:70	Saucer		受皿			
31	CB:06:88:80	Plastic Rivet		プラスチックリベット			
32	CB:60:14:40	Stopper, VS		V S ストッパー		R	
33	CB:63:29:60	Damper		ダンパー		C-80	
34	CA:07:59:40	Spacer, Transformer		トランススペーサー		C-80	
※ 35	CA:07:62:80	Spacer		スペーサー			
36	NB:62:01:40	Leg Ass'y		脚		C-80	
37	NB:08:14:80	Terminal Unit		ターミナルユニット			
38	EV:90:13:60	Sems Plain Washer	φ3.6 φ10t=0.8 FNM3-3g	セムス平座金			
39	Ei:33:00:86	Binding Head Tapping Screw	3×8 FCM3-Bφ	バインドタッピングネジ	PACK		

※New Parts (新規部品)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
40	Ei 34:01:06	Binding Head Tapping Screw	4×10 FCM3-BI	バインドタッピングネジ			
41	EV 20:30:46	Plain Washer	φ4 FCM3-BI	平 座 金	PACK		
42	EV 20:30:36	//	φ3 FCM3-BI	//	PACK		
43	ED 33:00:66	Binding Head Screw	3×6 FCM3-BI	バインド小ネジ	PACK		
44	Ei 33:00:66	Binding Head Tapping Screw	3×6 FCM3-BI	バインドタッピングネジ	PACK		
45	Ei 33:01:46	Bind Head Screw	3×14 FCM3-BI	バインド小ネジ	PACK	C-80	
※ 46	CA 07:62:80	Spacer		ス ペ ー サ ー			
47	EV 41:30:36	Toothed Locked Washer	φ3 FCRM3-BI	歯 付 座 金	PACK		
48	LB 10:01:80	Short Plug		シ ョ ー ト プ ラ グ			
49	EX 60:02:40	BW Head Tapping Screw	3×8.φ10 FCRM3-BI	BWヘッドタッピンネジ			
	CB 06:92:50	Binding Tie	BK-1	インシュロックタイ			
		Accessories		付 属 品			
	Mi 08:92:90	Pin Cord	1m	ピ ン コ ー ド			

■ EXPLODED VIEW (PANEL UNIT)



Parts List for Carbon Resistor

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

1/4W Type

HJ35 ○○○○

10mm

1/6W Type

HF85 ○○○○

5mm

C-85

YAMAHA