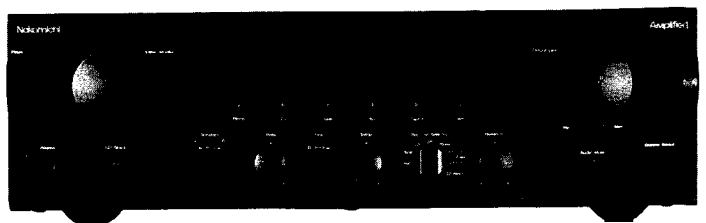


Service Manual

Nakamichi Amplifier 1



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1. GENERAL

1.1. Production No.

Production No.: B109

1.2. Destinations

EP, UK, SWT, GER, AUS, OTR, JPN

Abbreviation

EP — Europe	AUS — Australia
UK — United Kingdom	OTR — Other
SWT — Switzerland	JPN — Japan
GER — Germany	

1.3. Parts Supply

(1) Unstocked Parts


Parts marked with "★" at the head of part No. are not stocked. So, it takes time to supply the parts after we receive your order.

(2) Unsupplied Parts

Parts without part Nos. (indicated as "—" in the parts list) are not supplied.

1.4. CAUTIONS/WARNINGS

(1) Product Safety Notice

Parts marked with the symbol  in the schematic diagram have critical characteristics.

Use ONLY replacement parts recommended by the manufacturer.

It is recommended that the unit be operated from a suitable DC supply or batteries during initial check-out procedures.

(2) Leakage Current Check/Resistance Check

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamp, or if the resistance from chassis to either side of the power cord is less than 240 k ohms, the unit is defective.

WARNING — DO NOT return the unit to the customer until the problem is located and corrected.

1.5. Voltage Selector

Voltage selector is installed on the Rear Panel of the Amplifier 2 (Other). The voltage selector can select 110 V, 120 V, 220 V, or 240 V at customer's disposal.

1.6. Package Ass'y and Accessory Ass'y

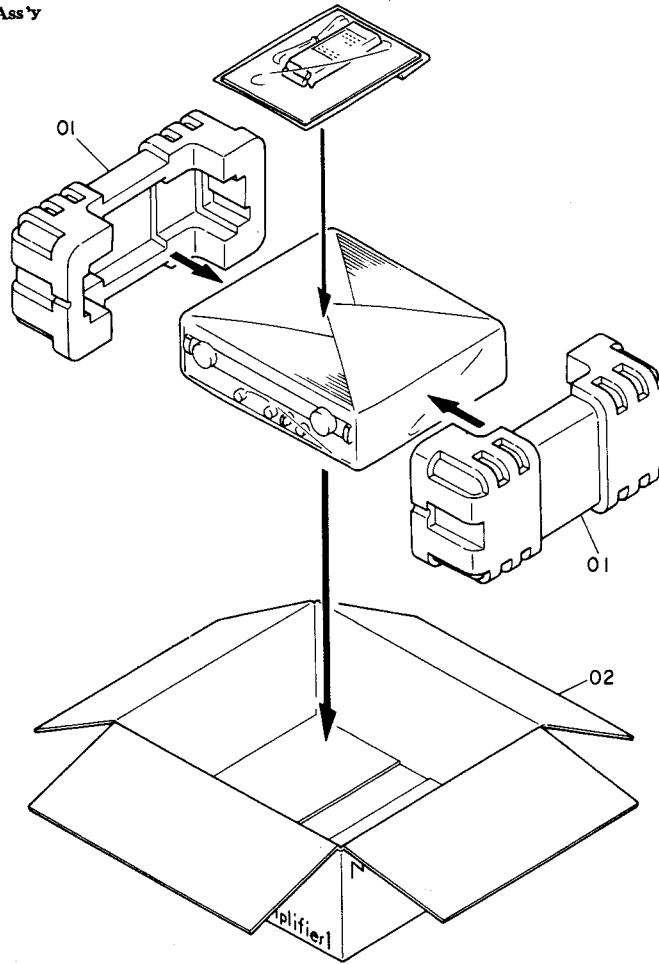


Fig. 1

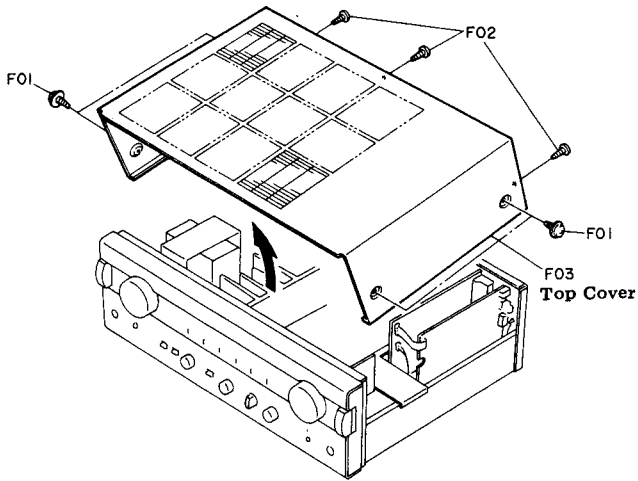
Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
	—	Package Ass'y			DA04422A	Accessory Ass'y (EP, SWT, GER, AUS)	1
01	0F04469A	Packing	2		DA04443A	Accessory Ass'y (UK)	1
02	0F04471A	Carton Box	1		DA04437A	Accessory Ass'y (OTR)	1
					DA04423A	Accessory Ass'y (JPN)	1
					0B90451A	Battery UM3x1	2
					0D06141A	Owner's Manual (English/German /French)	1
					0D06140A	Owner's Manual (Japanese)	1
					DA04428A	Remote Control Unit	1
					0D06136A	Mini Plug Cord	1

2. REMOVAL PROCEDURES

2.1. Top Cover

Refer to Fig. 2.1.

- (1) Loosen screws F01 (4 pcs.) and F02 (3 pcs.), and remove F03 (Top Cover).



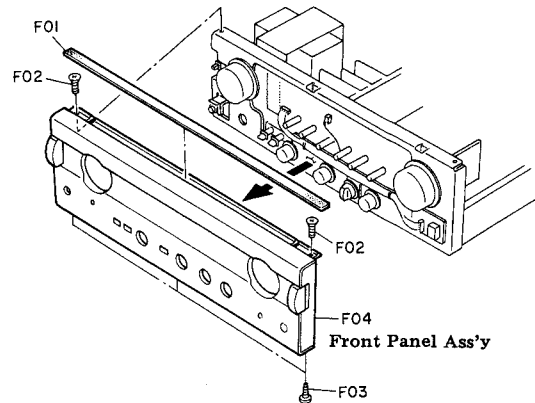
Front View

Fig. 2.1

2.3. Front Panel Ass'y

Refer to Fig. 2.3.

- (1) Remove the Top Cover referring to item 2.1.
- (2) Peel off F01 (Top Cover Cushion).
- (3) Loosen screws F02 (2 pcs.) and F03 (3 pcs.), and remove F04 (Front Panel Ass'y).



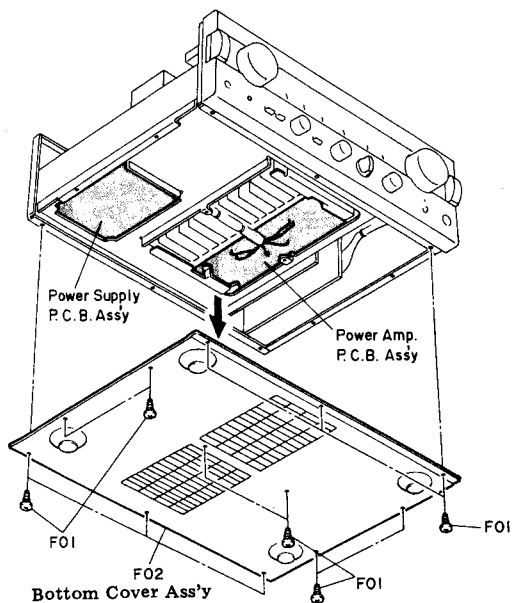
Front View

Fig. 2.3

2.2. Bottom Cover Ass'y

Refer to Fig. 2.2.

- (1) Loosen screws F01 (12 pcs.) and remove F02 (Bottom Cover Ass'y).



Bottom View

Fig. 2.2

3. PARTS LOCATION FOR ELECTRICAL ADJUSTMENT

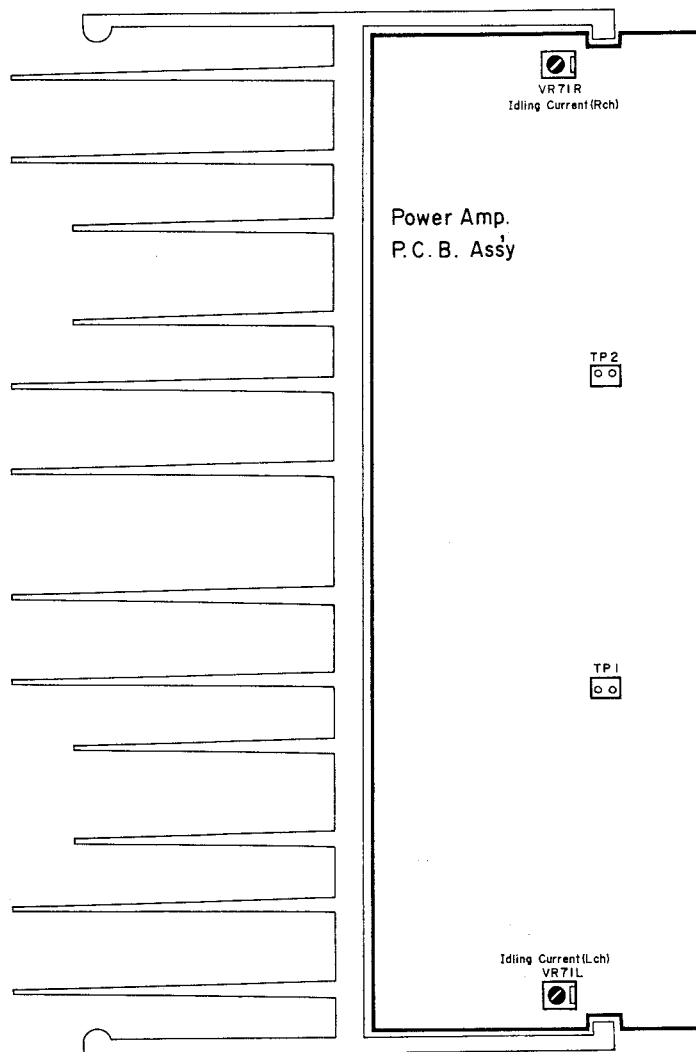


Fig. 3

4. ELECTRICAL ADJUSTMENT

4.1. Idling Current Adjustment

- Measuring Condition

Red. Out Selector: CD Position

CD Input Jacks: Short with shorting pins.

Speaker Output Terminals: Unloaded

- (1) Turn OFF the power.
- (2) Turn VR71L (VR71R) on the Power Amp. P.C.B. Ass'y fully counterclockwise.
- (3) Connect a DC millivoltmeter between both pins of TP1 (TP2).
- (4) Turn ON the power.
- (5) Rotate VR71L (VR71R) slowly and adjust so that the DC millivoltmeter reads 2.5 mV to 3.5 mV (idling current 11 mA to 16 mA).

5. MECHANISM ASS'Y AND PARTS LIST

5.1. Synthesis

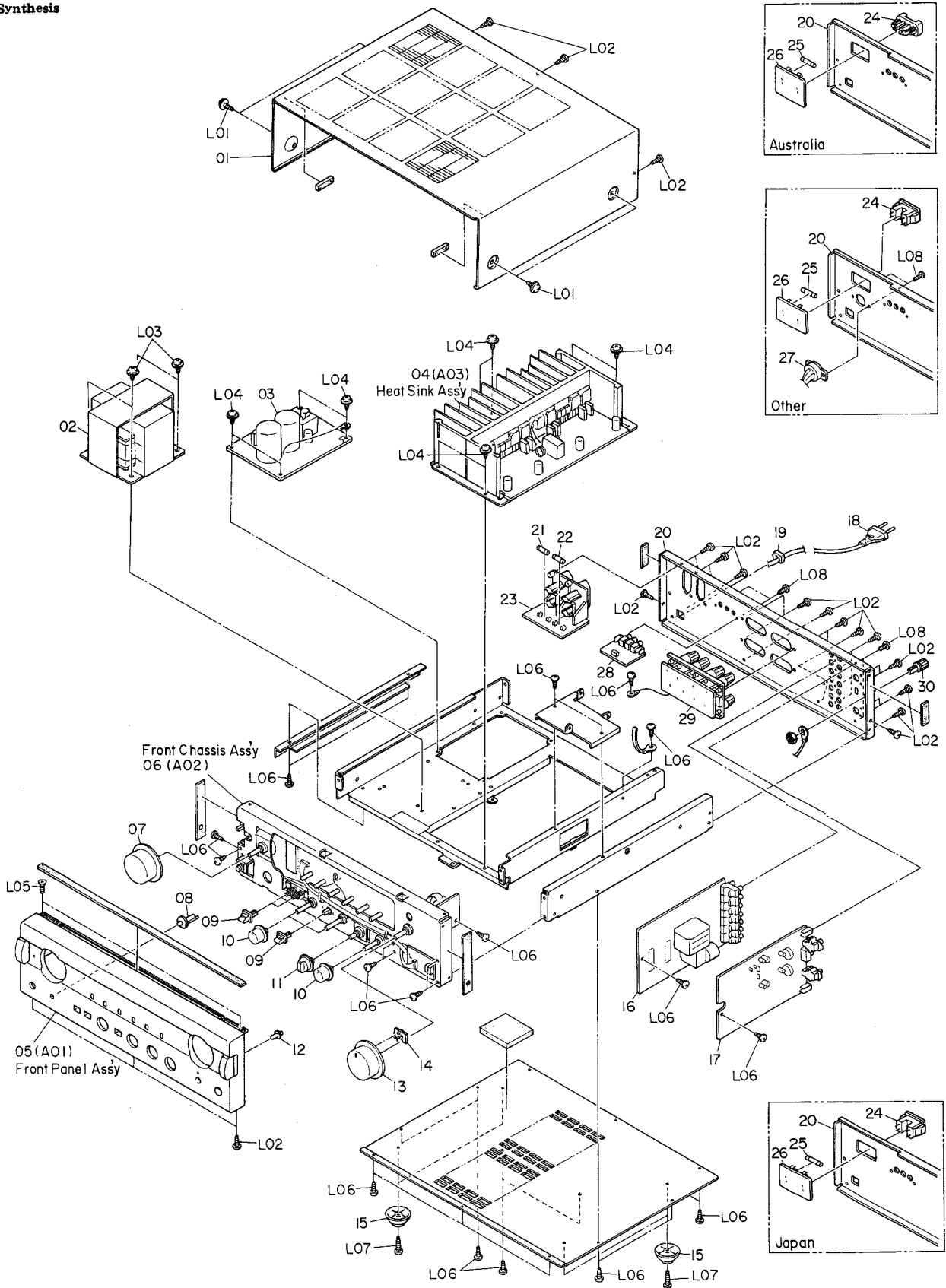


Fig. 5.1

*: Unstocked parts.

Schematic Ref. No.	Part No.	Description	Q'ty
5.1. Synthesis			
	—	Synthesis	
01	OH05862A	Top Cover	1
02	OB50185A	Power Transformer (EP, SWT, GER, UK, AUS)	1
	OB50186A	Power Transformer (OTR)	1
	OB50184A	Power Transformer (JPN)	1
03 *	BA08045A	Power Supply P.C.B. Ass'y (EP, SWT, GER, UK)	1
	* BA08044A	Power Supply P.C.B. Ass'y (AUS, OTR, JPN)	1
04	—	Heat Sink Ass'y	1
05	HA05953B	Front Panel Ass'y	1
06	—	Front Chassis Ass'y	1
07	HA05956A	Selector Knob Ass'y	1
08	OH05857D	CD Knob	1
09	OH05877B	Push Knob	3
10	HA05957A	Tone Knob Ass'y	3
11	HA05958A	Rec. Out Knob Ass'y	1
12	OH05858B	Mute Knob	1
13	HA05955A	Volume Knob Ass'y	1
14 *	BA08050A	Volume LED P.C.B. Ass'y	1
15	HA05833A	Leg Ass'y	4
16 *	BA08047A	Selector P.C.B. Ass'y (EP, SWT, GER, UK)	1
	* BA08046A	Selector P.C.B. Ass'y (AUS, OTR, JPN)	1
17 *	BA08043A	Eq. Amp. P.C.B. Ass'y (EP, SWT, GER, UK)	1
	* BA08042A	Eq. Amp. P.C.B. Ass'y (AUS, OTR, JPN)	1
18	OB80382A	Power Cord KP4819C (EP, GER)	1
	OB80383A	Power Cord BS6500 GTBS-2 (UK)	1
	OB80385A	Power Cord KP-419S LTCE-2F (SWT)	1
	OB05241A	Power Cord KP-560 (AUS)	1
19	OB80336A	Power Cord KP-235 (OTR, JPN)	1
	OB90157A	Cord Bushing SR-6N-4 (EP, GER, UK)	1
	OB90530A	Cord Bushing 2104 (SWT)	1
	OB90280A	Cord Bushing 2271 (AUS, OTR, JPN)	1
20	OH05863B	Rear Panel (EP)	1
	OH05864A	Rear Panel (UK)	1
	OH05865B	Rear Panel (SWT)	1
	OH05955A	Rear Panel (GER)	1
	OH05956A	Rear Panel (AUS)	1
	OH05867A	Rear Panel (OTR)	1
	OH05866A	Rear Panel (JPN)	1
21	OB90386A	Fuse T3.15A 250V [F401] (EP, SWT, GER, UK)	1
22	OB90384A	Fuse T2.0A 250V [F402] (EP, SWT, GER, UK)	1
23 *	BA08041A	AC Outlet B P.C.B. Ass'y (EP, SWT, GER)	1
	* BA08040A	AC Outlet B P.C.B. Ass'y (UK)	1
24	OB80394A	AC Outlet (AUS)	1
	OB81986A	AC Outlet 2P (OTR, JPN)	1
25	OB90386A	Fuse T3.15A 250V [F401] (AUS)	1
	OB90478A	Fuse 6.3A 250V [F401] (OTR, JPN)	1
26 *	BA08231A	AC Outlet P.C.B. Ass'y (AUS)	1
	* BA08039A	AC Outlet A P.C.B. Ass'y (OTR, JPN)	1
27	OB70049A	Voltage Selector (OTR)	1
28 *	BA08032A	Remote P.C.B. Ass'y	1
29 *	BA08049A	Speaker Terminal P.C.B. Ass'y (EP, SWT, GER, UK)	1
	* BA08123A	Speaker Terminal P.C.B. Ass'y (AUS, OTR, JPN)	1
30	OB81604A	Earth Terminal	1
L01	OE03032A	BT4x8 @ Pan Washer Faced (Black Chromate)	
L02	OE00921A	BT3x8 @ Binding (Black Chromate)	
L03	OE03664A	ST4x8 @ Tapping (Black Chromate)	
L04	OE03157A	BT3x8 @ Binding with Flat Washer	
L05	OE03025A	BT3x6 @ Countersunk	
L06	OE00868A	BT3x8 @ Binding	
L07	OE00888A	BT3x12 @ Binding	
L08	OE00985A	M3x6 @ Binding (Black Chromate)	

5.2. Front Panel Ass'y (A01)

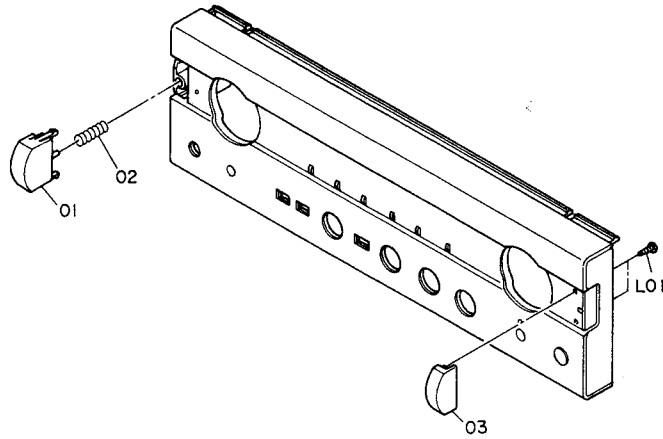


Fig. 5.2

5.3. Front Chassis Ass'y (A02)

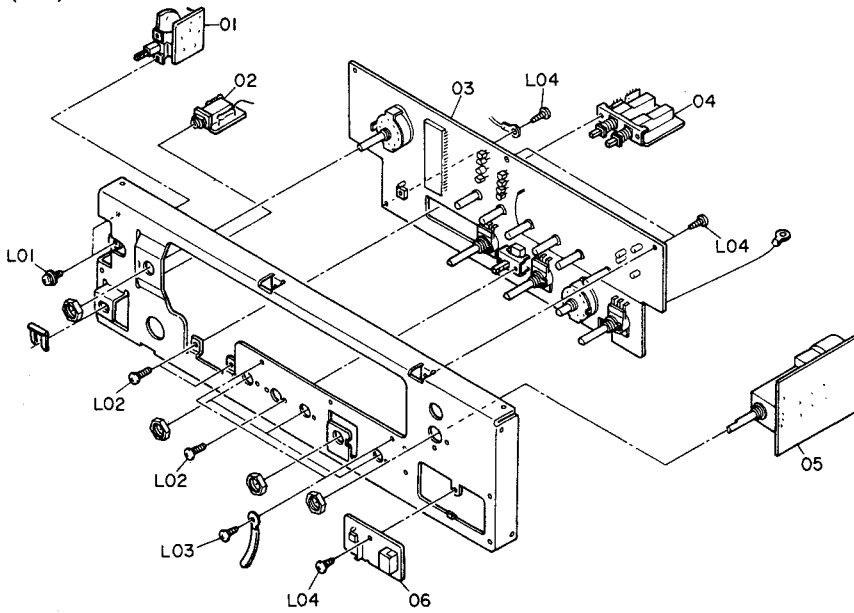


Fig. 5.3

*: Unstocked parts.

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
5.2. Front Panel Ass'y (A01)				5.3. Front Chassis Ass'y (A02)			
A01	HA05953B	Front Panel Ass'y	1	A02	—	Front Chassis Ass'y	1
01	0H05723A	Power Switch Button	1	01	* BA08031A	Power Switch P.C.B. Ass'y (EP, SWT, GER, UK)	1
02	0C09392A	Power Switch Spring	1		* BA08030A	Power Switch P.C.B. Ass'y (AUS, OTR, JPN)	1
03	0H05714A	Dummy Cap	1	02	* BA08027A	Headphone P.C.B. Ass'y	1
L01	0E00855A	BT2x6 @ Binding		03	* BA08026A	Front P.C.B. Ass'y (EP, SWT, GER, UK)	1
					* BA08025A	Front P.C.B. Ass'y (AUS, OTR, JPN)	1
				04	* BA08034A	Speaker Switch P.C.B. Ass'y	1
				05	* BA08035A	Volume A P.C.B. Ass'y	1
				06	* BA08033A	Sensor P.C.B. Ass'y	1
				L01	0E00606A	M3x6 @ Pan (3A)	
				L02	0E00896A	M3x6 @ Binding	
				L03	0E00877A	ST3x8 @ Binding	
				L04	0E00868A	BT3x8 @ Binding	

5.4. Heat Sink Ass'y (A03)

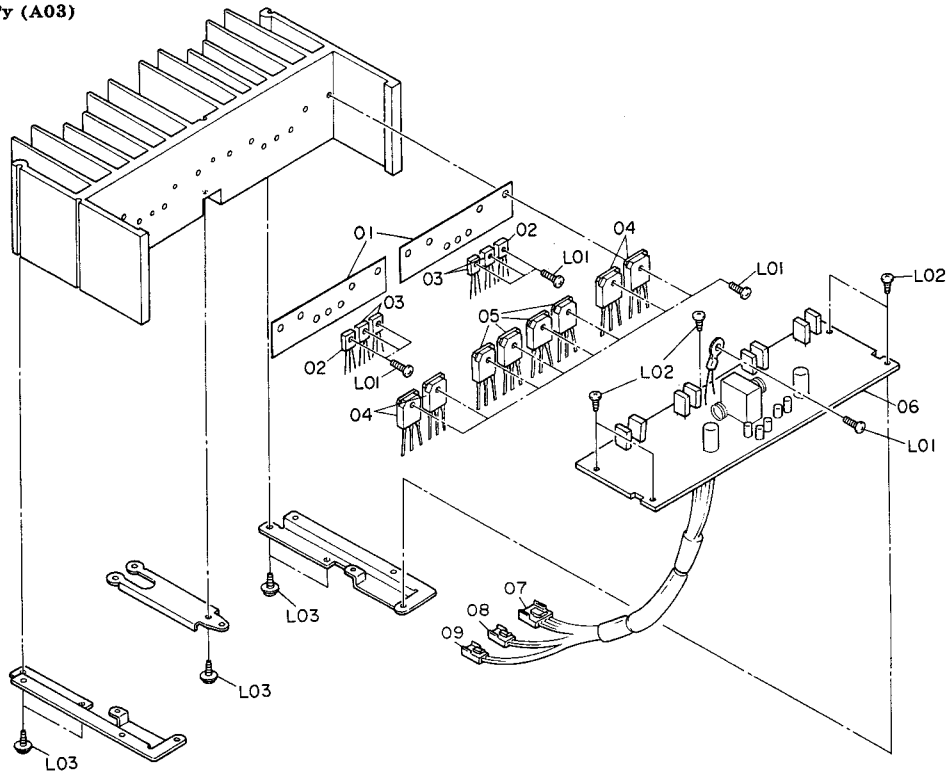


Fig. 5.4

★: Unstocked parts.

Schematic Ref. No.	Part No.	Description	Q'ty
5.4. Heat Sink Ass'y (A03)			
A03	—	Heat Sink Ass'y	1
01	OJ06293A	Transistor Sheet	2
02	OB10380A	TR 2SA1358 [Q178L,R]	2
03	OB10381A	TR 2SC3421 [Q176L,R/Q177L,R]	4
04	OB10290A	TR 2SA1491 [Q180L,R/Q182L,R]	4
05	OB10291A	TR 2SC3855 [Q179L,R/Q181L,R]	4
06	★ BA08029A	Power Amp. P.C.B. Ass'y (EP, SWT, GER, UK)	1
	★ BA08028A	Power Amp. P.C.B. Ass'y (AUS, OTR, JPN)	1
07	OB80356A	4P Connector Ass'y [CN118]	1
08	OB80355A	2P Connector Ass'y [CN116]	1
09	OB80357A	2P Connector Ass'y [CN121]	1
L01	OE03319A	M3x8 ⊕ Binding	
L02	OE00868A	BT3x8 ⊕ Binding	
L03	OE03157A	BT3x8 ⊕ Binding With Flat Washer	

6. MOUNTING DIAGRAMS AND PARTS LIST

Notes: 1. Mounting diagram shows a dip side view of the printed circuit board.

2. Diode is 1SS53, 1S1555, or 1SS176 unless otherwise specified.

3. Following transistors are interchangeable with each other.

a. 2SA733, 2SA608SP, 2SA1048, 2SA1175

b. 2SC945, 2SC536SP, 2SC2458, 2SC2785

4. Abbreviation for part name:

TR — Transistor, SiD — Silicon Diode, ZD — Zener Diode, Varicap — Variable Capacitance Diode

RK — Carbon Resistor, RM — Metal Film Resistor, RF — Fail Safe Type Resistor, RC — Cement Resistor

CE — Electrolytic Capacitor, CML — Mylar Capacitor, CC — Ceramic Capacitor, CPP — PP Capacitor,

CMM — Metalized Mylar Capacitor, CSP — Polystyrene Capacitor, C — Mica Capacitor

CT — Tantalum Capacitor

6.1. AC Outlet P.C.B. Ass'y

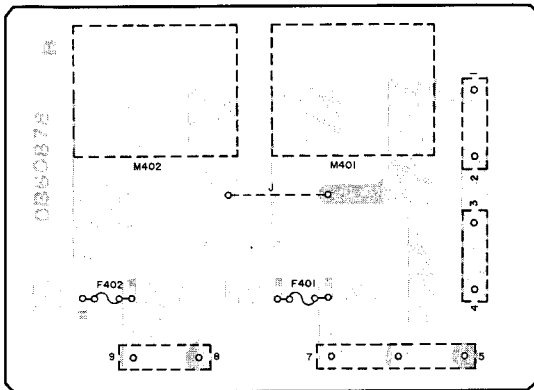


Fig. 6.1.1 For EP, SWT & UK

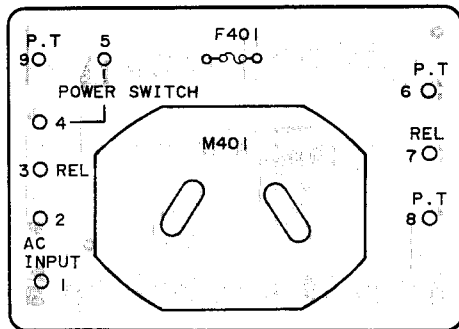


Fig. 6.1.2 For AUS

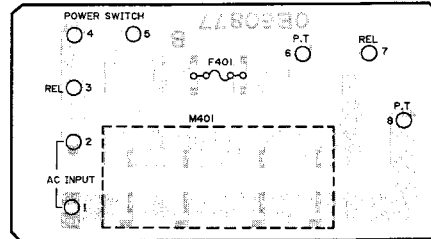


Fig. 6.1.3 For OTR & JPN

6.2. Power Switch P.C.B. Ass'y

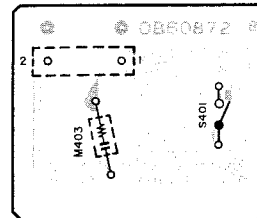


Fig. 6.2

6.3. Volume LED P.C.B. Ass'y

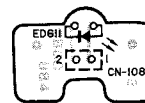


Fig. 6.3

6.4. Headphone P.C.B. Ass'y

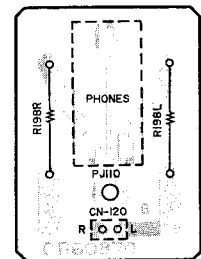


Fig. 6.4

*: Unstocked parts.

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
6.1. AC Outlet P.C.B. Ass'y			6.3. Volume LED P.C.B. Ass'y					
M401,402	* BA08041A	AC Outlet B P.C.B. Ass'y (EP, SWT, GER)	*	BA08039A	AC Outlet A P.C.B. Ass'y (OTR, JPN)	ED611 CN108	* BA08050A	Volume LED P.C.B. Ass'y
	* BA08040A	AC Outlet B P.C.B. Ass'y (UK)		0B60877B	AC Outlet A P.C.B. Fuse Clip (2)		0B60884B	Volume LED P.C.B. LED Green
	0B60878B	AC Outlet B P.C.B.	6.2. Power Switch P.C.B. Ass'y				0B12710A	2P Connector Ass'y
	0B84364A	AC Outlet (EP, SWT, GER)	*	BA08031A	Power Switch P.C.B. Ass'y (EP, SWT, GER, UK)	6.4. Headphone P.C.B. Ass'y		
	0B84365A	AC Outlet (UK)		* BA08030A	Power Switch P.C.B. Ass'y (AUS, OTR, JPN)	R198L,R P.J110 CN120	* BA08027A	Headphone P.C.B. Ass'y
0B84275A	Wrapping Terminal 2P (3)	M403	0B60872B	Power Switch P.C.B. Spark Killer	0B60870B		Headphone P.C.B.	
0B84380A	Wrapping Terminal 3P (1)		S401	0B47233A	Power Switch P.C.B. Spark Killer		0B24281A	RF 330 2W
0B90366A	Fuse Clip (2)	0B71005A	Power Switch Wrapping Terminal 2P (1)	0B84275A	Power Switch Wrapping Terminal 2P (1)		0B84371A	Headphone Jack
	* BA08231A	AC Outlet P.C.B. Ass'y (AUS)				0B81459A	2P T-Post	
	0B60920A	AC Outlet P.C.B.				0B80351B	Ground 2 Ass'y (1)	
	0B90366A	Fuse Clip (2)						

6.5. Speaker Switch P.C.B. Ass'y

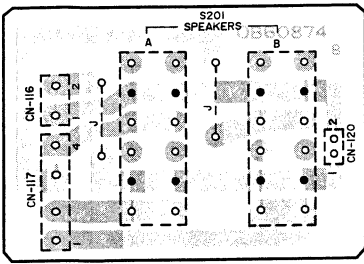


Fig. 6.5

6.6. Remote P.C.B. Ass'y

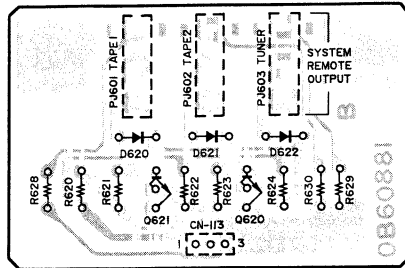


Fig. 6.6

6.7. Sensor P.C.B. Ass'y

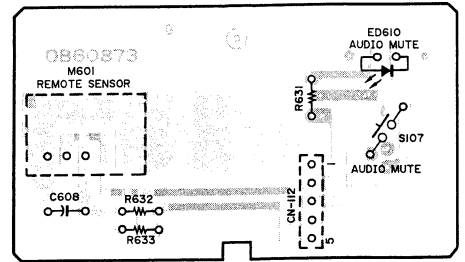


Fig. 6.7

6.8. Volume A P.C.B. Ass'y

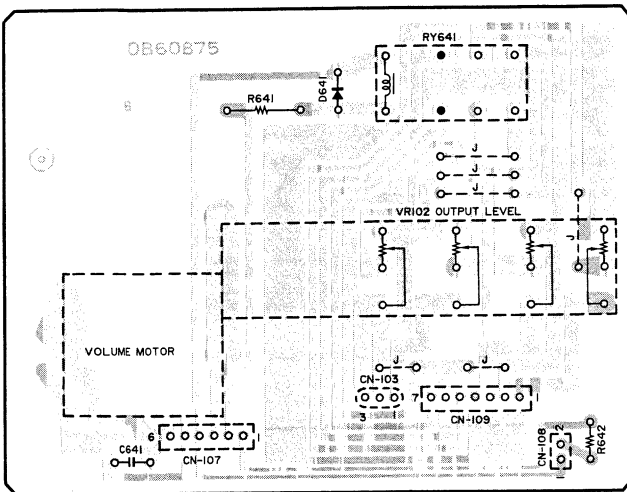


Fig. 6.8

6.9. Speaker Terminal P.C.B. Ass'y

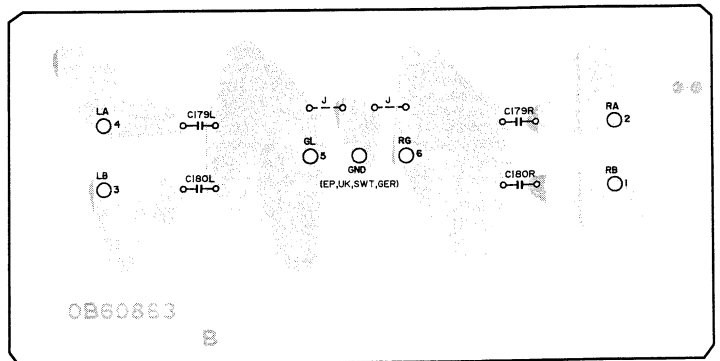


Fig. 6.9

*: Unstocked parts.

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
6.5. Speaker Switch P.C.B. Ass'y			6.7. Sensor P.C.B. Ass'y			6.9. Speaker Terminal P.C.B. Ass'y		
	* BA08034A	Speaker Switch P.C.B. Ass'y		* BA08033A	Sensor P.C.B. Ass'y		* BA08049A	Speaker Terminal P.C.B. Ass'y (EP, SWT, GER, UK)
	OB60874B	Speaker Switch P.C.B.	ED610	OB60873B	Sensor P.C.B.		* BA08123A	Speaker Terminal P.C.B. Ass'y (AUS, OTR, JPN)
S201	OB70189A	Push Switch	R631	OB12710A	LED Green		OB60883B	Speaker Terminal P.C.B.
CN116	OB81400A	2P T-Post	R632	OB09661A	RK 22 1/6W J	C179L,R	OB47073A	CML 0.022μ 100V J
CN117	OB81322A	4P T-Post	R633	OB09637A	RK 22 1/6W J	C180L,R	OB47073A	CML 0.022μ 100V J
CN120	OB80358A	2P Connector Ass'y	C608	OB09709A	RK 22K 1/6W J	CN117	OB80359A	4P Connector Ass'y
			M601	OB40176A	CE 4.7μ 50V	CN122	OB80360A	2P Connector Ass'y
				OB19017A	Remote Receiver Unit	PJ111	OB84366A	Speaker Terminal Ground 3 Ass'y (EP, SWT, GER, UK)
			S107	OB70161A	Tact Switch		OB80350C	Spacer 25mm (4)
			CN112	OB81637A	5P T-Post			
			6.8. Volume A P.C.B. Ass'y					
	* BA08032A	Remote P.C.B. Ass'y		* BA08035A	Volume A P.C.B. Ass'y			
Q620,621	OB60881B	Remote P.C.B.		OB60875B	Volume A P.C.B.			
D620,621	OB06100A	TR 2SC945	D641	OB12693A	SiD S5688B			
D622	OB06398A	SiD 1SS176	VR102	OB30137A	Motor VR 50KB/20KB			
R620	OB09701A	RK 10K 1/6W J	R641	OB20398A	RK 18 1/4W J			
R621	OB09717A	RK 47K 1/6W J	R642	OB09661A	RK 220 1/6W J			
R622,623	OB09701A	RK 10K 1/6W J	C641	OB41554A	CC 0.022μ 25V Z			
R624	OB09701A	RK 10K 1/6W J	RY641	OB90468A	Relay 5V			
R628,629	OB09637A	RK 22 1/6W J	CN103	OB80341A	3P Connector Ass'y			
R630	OB09637A	RK 22 1/6W J	CN107	OB84421A	6P S-Post			
PJ601,602	OB84372A	Mini Jack Stereo	CN108	OB81459A	2P T-Post			
PJ603	OB84372A	Mini Jack Stereo	CN109	OB81471A	7P S-Post			
CN113	OB84280A	3P T-Post						
	OB84388A	Screw Terminal (2)						

6.10. Power Supply P.C.B. Ass'y

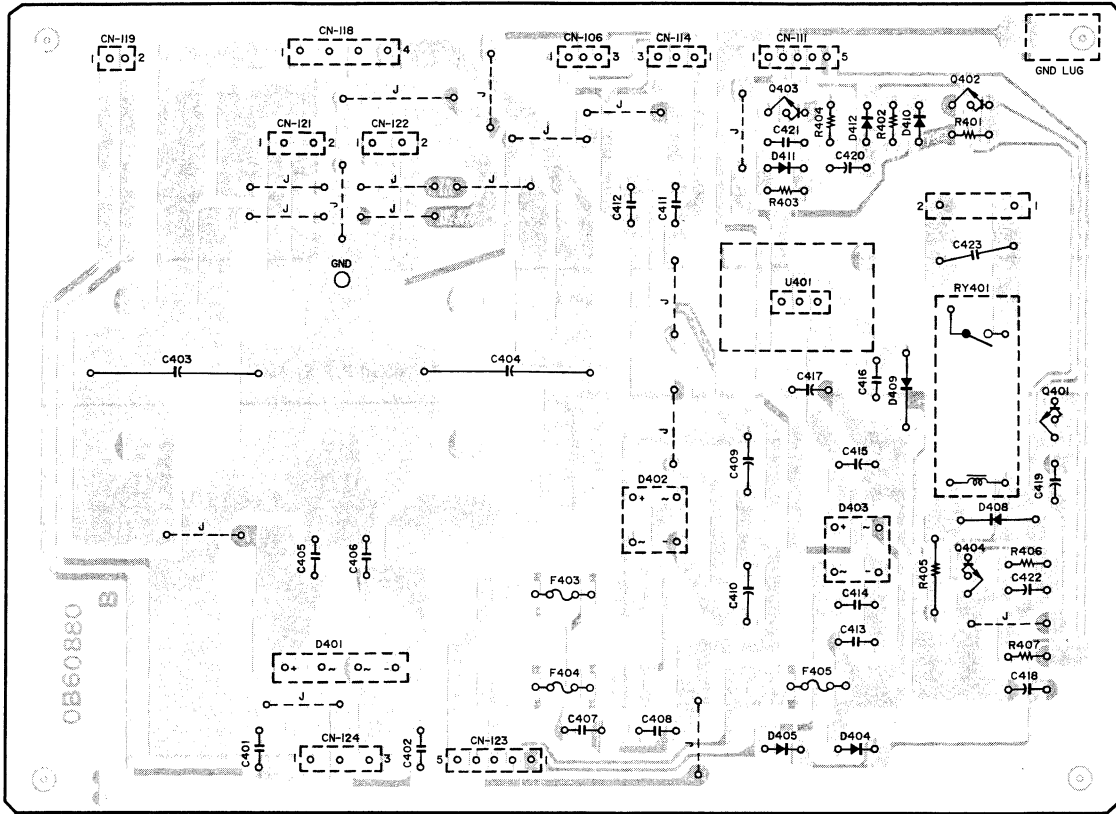


Fig. 6.10

*: Unstocked parts.

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
6.10. Power Supply P.C.B. Ass'y					
	* BA08045A	Power Supply P.C.B. Ass'y (EP, SWT, GER, UK)	C418	0B40557A	CE 1 μ 50V
	* BA08044A	Power Supply P.C.B. Ass'y (AUS, OTR, JPN)	C419,420	0B40558A	CE 2.2 μ 50V
U401	0B60880B	Power Supply P.C.B.	C421	0B47117A	CC 0.1 μ 50V
Q401	0B11897A	IC 78M05A	C422	0B40778A	CE 10 μ 25V
Q402,403	0B06100A	TR 2SC945	C423	0B41825A	CC 4700P 400V
Q404	0B10023A	TR 2SC2002	RY401	0B90467A	Relay 9V
D401	0B12617A	SiD KBU8D	F403,404	0B90381A	Fuse T1A 250V
D402,403	0B12722A	SiD W02GL	F405	0B90384A	Fuse T2.0A 250V
D404,405	0B06398A	SiD 1SS176	CN106	0B80342A	3P Connector Ass'y
D408,409	0B12365A	SiD 1SR35-100A	CN111	0B84287A	5P T-Post
D410,411	0B06398A	SiD 1SS176	CN114	0B81635A	3P T-Post
D412	0B06398A	SiD 1SS176	CN118	0B81322A	4P T-Post
R401	0B09703A	RK 12K 1/6W J	CN119	0B81459A	2P T-Post
R402	0B09721A	RK 68K 1/6W J	CN121,122	0B81400A	2P T-Post
R403,404	0B09725A	RK 100K 1/6W J	CN123	0B81637A	5P T-Post
R405	0B24300R	RF 10 1/2W J	CN124	0B81401A	3P T-Post
R406	0B09709A	RK 22K 1/6W J	OB90366A	Fuse Clip (6)	
R407	0B09685A	RK 2.2K 1/6W J	OB84383A	3P Wire Holder (CN106)	
C401,402	0B47075A	CML 0.047 μ 100V J	OB80364B	Ground 4 Ass'y (1)	
C403,404	0B40791A	CE 10000 μ 63V	0J05625B	TR Heat Sink (1)	
C405,406	0B47077A	CML 0.1 μ 63V J	OB90502A	Heat Sink (EP, SWT, GER, UK) (1)	
C407,408	0B47075A	CML 0.047 μ 100V J	OB90471A	Heat Sink (AUS, OTR, JPN) (1)	
C409,410	0B40792A	CE 2200 μ 35V	OE03355A	Earth Lug for P.C.B. (1)	
C411,412	0B47077A	CML 0.1 μ 63V J	OB84275A	Wrapping Terminal (1)	
C413,414	0B47075A	CML 0.047 μ 100V J	OE00986A	M3x10 \oplus Binding (1)	
C415	0B40787A	CE 2200 μ 16V	OE00986A		
C416	0B47077A	CML 0.1 μ 63V J			
C417	0B40781A	CE 1000 μ 10V			

6.11. Eq. Amp. P.C.B. Ass'y

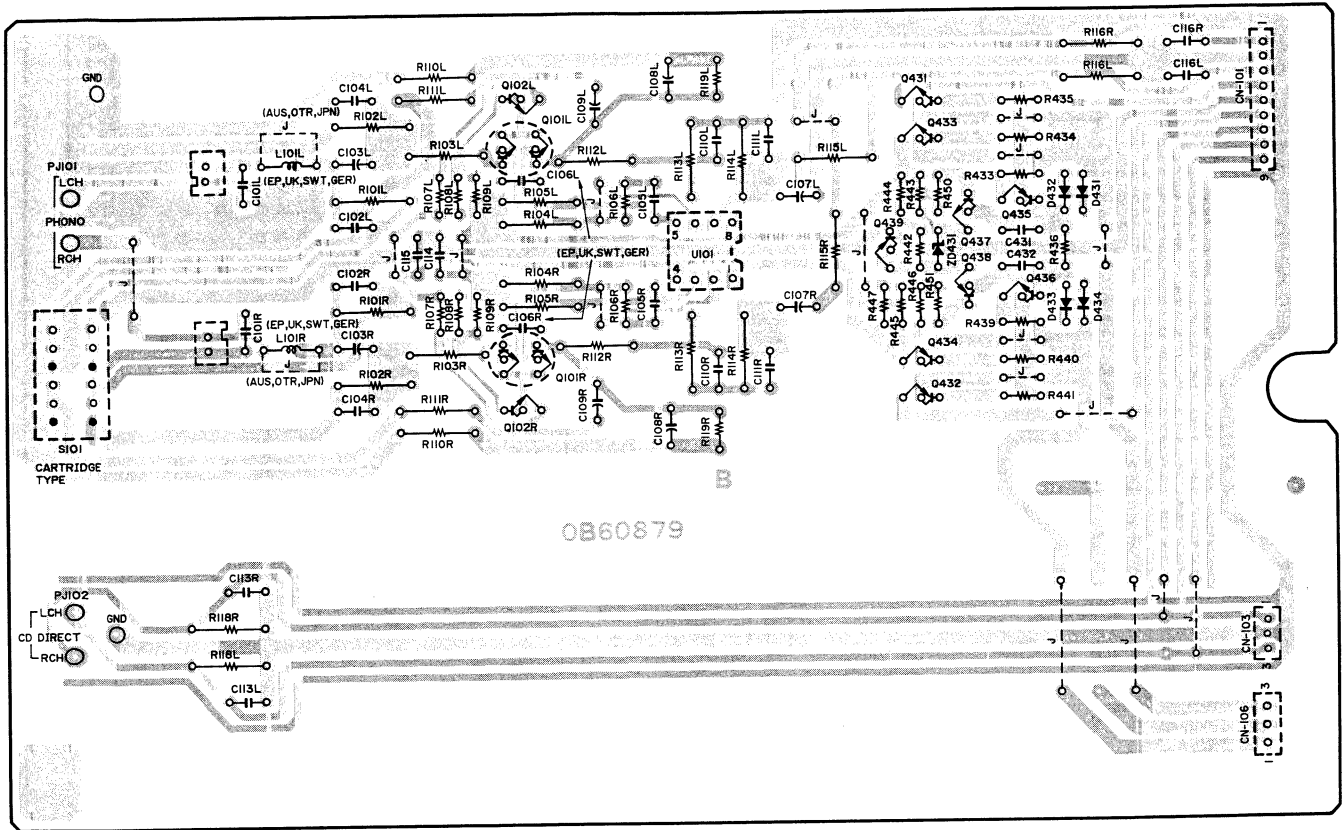


Fig. 6.11

*: Unstocked parts.

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
6.11. Eq. Amp. P.C.B. Ass'y								
	* BA08043A	Eq. Amp. P.C.B. Ass'y (EP, SWT, GER, UK)	R111L,R	OB22854A	RM 41.2 1/4W F	C114,115	OB05550A	CML 1000P 50V J
	* BA08042A	Eq. Amp. P.C.B. Ass'y (AUS, OTR, JPN)	R112L,R	OB22579A	RM 243 1/4W F	C116L,R	OB05550A	CML 1000P 50V J
			R113L,R	OB22563A	RM 38.3K 1/4W F	C431,432	OB05653A	CML 1500P 50V J
			R114L,R	OB09541A	RM 464K 1/4W F	S101	OB070187A	Slide Switch 4-2 S
			R115L,R	OB01857A	RK 1.0K 1/4W J	PJ101	OB84375A	Pin Jack 2P
			R116L,R	OB01889A	RK 100K 1/4W J	PJ102	OB84374A	Pin Jack 2P
			R118L,R	OB05508A	RK 56K 1/4W J	CN101	OB84084A	3P S-Post
			R119L,R	OB09719A	RK 56K 1/6W J	CN103	OB81467A	3P S-Post
			R433	OB09677A	RK 1K 1/6W J	CN106	OB81667A	3P S-Post
	OB60879B	Eq. Amp. P.C.B.	R434,435	OB09685A	RK 2.2K 1/6W J		OB80343A	Phone L Ass'y 2P (1)
	OB11713A	IC μ PC4570C	R436	OB09725A	RK 100K 1/6W J		OB80344A	Phone R Ass'y 2P (1)
	OB10382A	TR 2SC3065 (E,F)	R439	OB09677A	RK 1K 1/6W J		OB84388A	Screw Terminal (2)
	OB10078A	TR 2SC2240 (GR)	R440,441	OB09685A	RK 2.2K 1/6W J			
	OB06322A	TR 2SC2002 (K,L)	R442	OB09701A	RK 10K 1/6W J			
	OB06372A	TR 2SA953 (K,L)	R443	OB09693A	RK 4.7K 1/6W J			
	OB06322A	TR 2SC2002 (K,L)	R444	OB09697A	RK 6.8K 1/6W J			
	OB06372A	TR 2SA953 (K,L)	R445,446	OB09701A	RK 10K 1/6W J			
	OB06155A	TR 2SA733 (P)	R447	OB09687A	RK 2.7K 1/6W J			
	OB06100A	TR 2SC945	R450,451	OB09701A	RK 10K 1/6W J			
	OB06155A	TR 2SA733 (P)	C101L,R	OB47027A	CML 470P 50V J			
	OB12168A	ZD 10V B2	C102L,R	OB47027A	CML 470P 50V J			
	OB06398A	SID 1SS176	C103L,R	OB40720A	CE 10 μ 16V (LN)			
	OB06398A	SID 1SS176	C104L,R	OB47126A	CC 220P 50V K			
	OB51377A	FN Coil 50 μ H (EP, SWT, GER, UK)		OB09302A	CML 100P 50V J (AUS, OTR, JPN)			
	OB01679A	RK 100 1/4W J		OB41300A	CML 0.15 μ 50V J			
	OB05876A	RK 51K 1/4W J	C105L,R	OB47124A	CC 150P 50V K (EP, SWT, GER, UK)			
	OB05800A	RK 5.6 1/4W J	C106L,R					
	OB01888A	RK 10K 1/4W J						
	OB01888A	RK 10K 1/4W J						
	OB09611A	RK 1.8 1/6W J						
	OB09693A	RK 4.7K 1/6W J						
	OB09701A	RK 10K 1/6W J						
	OB09711A	RK 27K 1/6W J						
	OB22853A	RM 787 1/4W F						
U101								
Q101L,R								
Q102L,R								
Q431								
Q432								
Q433								
Q434								
Q435								
Q436,437								
Q438,439								
ZD431								
D431,432								
D433,434								
L101L,R								
R101L,R								
R102L,R								
R103L,R								
R104L,R								
R105L,R								
R106L,R								
R107L,R								
R108L,R								
R109L,R								
R110L,R								

6.12. Selector P.C.B. Ass'y

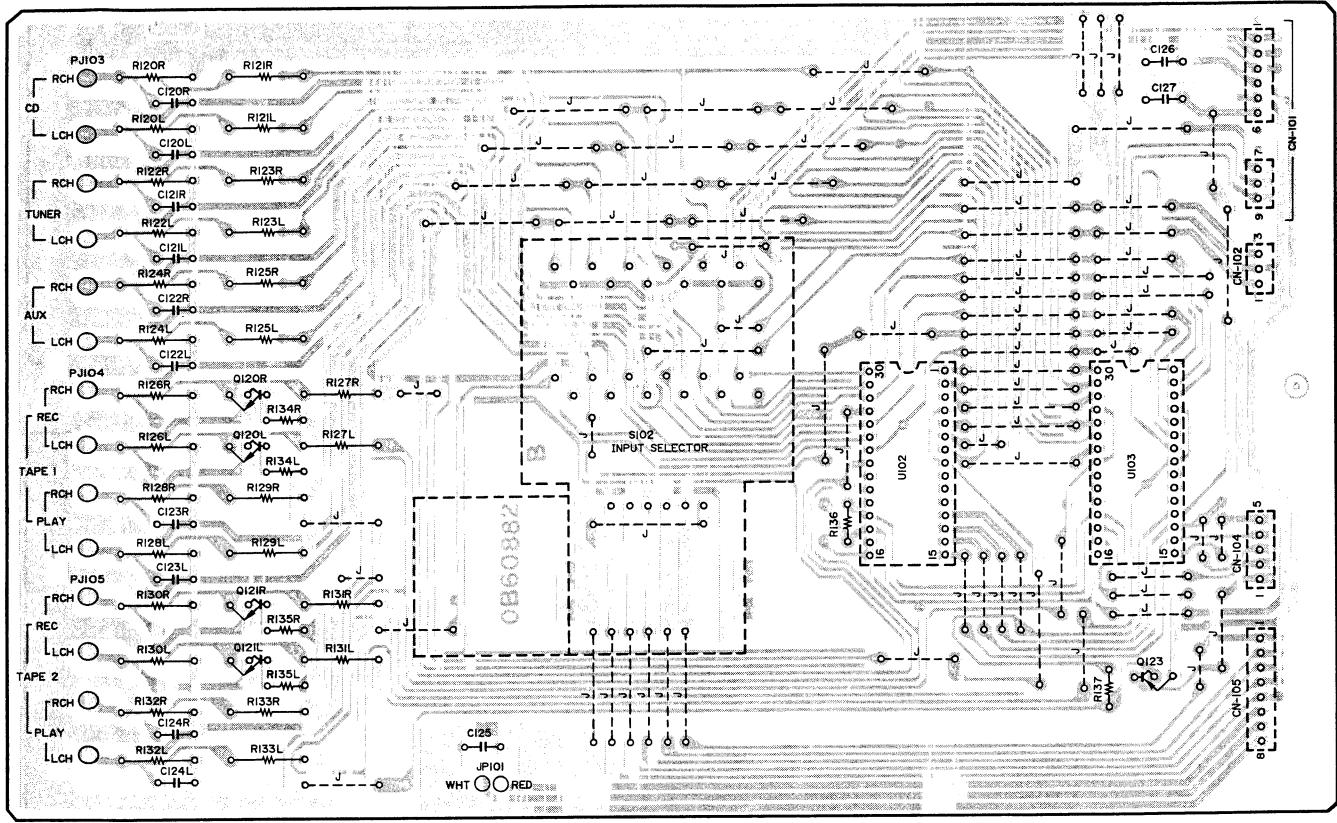


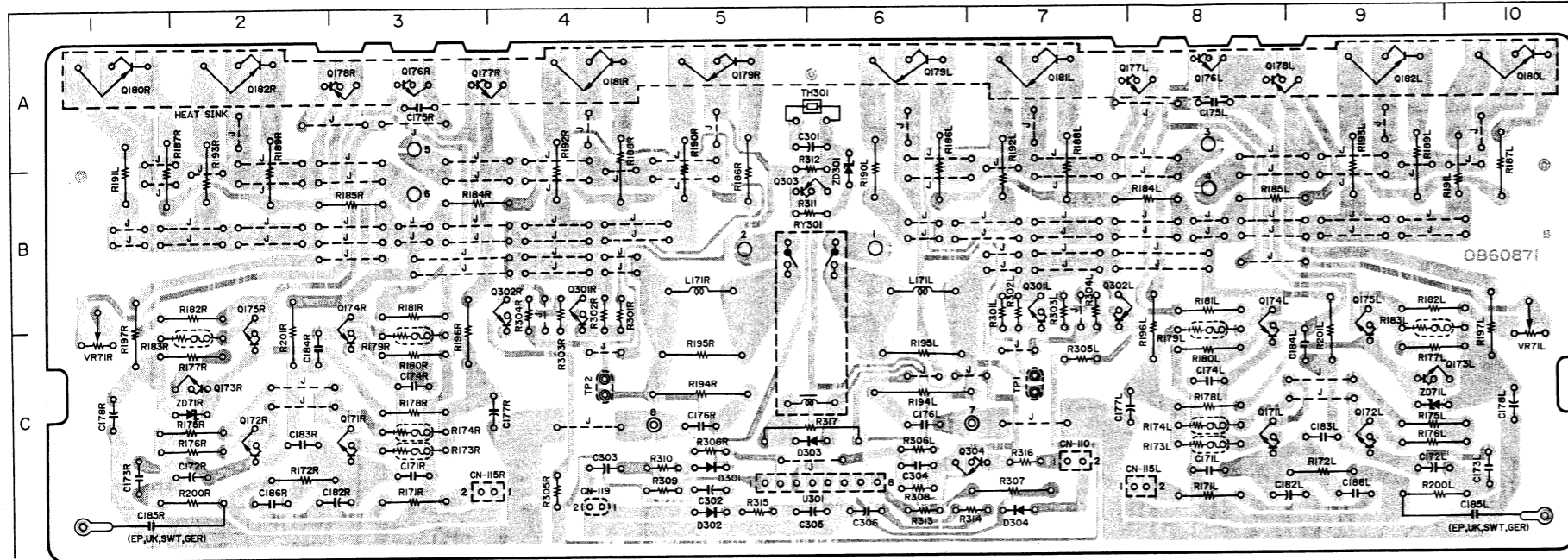
Fig. 6.12

*: Unstocked parts.

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
6.12. Selector P.C.B. Ass'y					
	* BA08047A	Selector P.C.B. Ass'y (EP, SWT, GER, UK)	C123L,R	OB05550A	CML 1000P 50V J
	* BA08046A	Selector P.C.B. Ass'y (AUS, OTR, JPN)	C124L,R	OB05550A	CML 1000P 50V J
			C125	OB47117A	CC 0.1μ 50V Z
			C126,127	OB05550A	CML 1000P 50V J
			S102	OB70192A	Motor Rotary Switch
			PJ103	OB84368A	Pin Jack 6P
			PJ104,105	OB84369A	Pin Jack 4P
	OB60882B	Selector P.C.B.	CN101	OB80340A	9P Connector Ass'y
U102,103	OB11879A	IC LC7822	CN102	OB84280A	3P T-Post
Q120L,R	OB06299A	TR 2SC2878	CN104	OB84287A	5P T-Post
Q121L,R	OB06299A	TR 2SC2878	CN105	OB81465A	8P T-Post
Q123	OB10053A	TR DTA144ES		OB84383A	3P Wire Holder (CN101) (1)
R120L,R	OB05508A	RK 56K 1/4W J		OB84386A	6P Wire Holder (CN101) (1)
R121L,R	OB01679A	RK 100 1/4W J		OB80386A	2P Connector Ass'y (1)
R122L,R	OB05508A	RK 56K 1/4W J		OB81459A	2P T-Post (1)
R123L,R	OB01679A	RK 100 1/4W J			
R124L,R	OB05508A	RK 56K 1/4W J			
R125L,R	OB01679A	RK 100 1/4W J			
R126L,R	OB01889A	RK 100K 1/4W J			
R127L,R	OB05698A	RK 1.5K 1/4W J			
R128L,R	OB05508A	RK 56K 1/4W J			
R129L,R	OB01679A	RK 100 1/4W J			
R130L,R	OB01889A	RK 100K 1/4W J			
R131L,R	OB05698A	RK 1.5K 1/4W J			
R132L,R	OB05508A	RK 56K 1/4W J			
R133L,R	OB01679A	RK 100 1/4W J			
R134L,R	OB09717A	RK 47K 1/4W J			
R135L,R	OB09717A	RK 47K 1/4W J			
R136	OB09709A	RK 22K 1/6W J			
R137	OB09717A	RK 47K 1/4W J			
C120L,R	OB05550A	CML 1000P 50V J			
C121L,R	OB05550A	CML 1000P 50V J			
C122L,R	OB05550A	CML 1000P 50V J			

6.13. Power Amp. P.C.B. Ass'y

• Semiconductor Location



Ref. No.	Location
U301	C-5
Q171L	C-8
Q171R	C-3
Q172L	C-9
Q172R	C-2
Q173L	C-9
Q173R	C-2
Q174L	B-8
Q174R	B-3
Q175L	B-9
Q175R	B-2
Q176L	A-8
Q176R	A-3
Q177L	A-8
Q177R	A-3
Q178L	A-8
Q178R	A-3
Q179L	A-6
Q179R	A-5
Q180L	A-10
Q180R	A-1
Q181L	A-7
Q181R	A-4
Q182L	A-9
Q182R	A-2
Q301L	B-7
Q301R	B-4
Q302L	B-7
Q302R	B-4
Q303	B-5
Q304	C-7
ZD71L	C-9
ZD71R	C-2
ZD301	B-6
D301	C-5
D302	C-5
D303	C-5
D304	C-7

Note: Q176L/R, Q177L/R, R178L/R, Q179L/R, Q180L/R, Q181L/R and Q182L/R are mounted on the Heat Sink Ass'y.

Fig. 6.13

*: Unstocked parts.

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
6.13. Power Amp. P.C.B. Ass'y								
	* BA08029A	Power Amp. P.C.B. Ass'y (EP, SWT, GER, UK)	R176L,R	OB01706A	RK 47 1/4W J	R310	OB09701A	RK 10K 1/6W J
	* BA08028A	Power Amp. P.C.B. Ass'y (AUS, OTR, JPN)	R177L,R	OB20529A	RK 910 1/4W J	R311	OB09693A	RK 4.7K 1/6W J
			R178L,R	RK 47K 1/4W J	R312	OB09701A	RK 10K 1/6W J	
			R179L,R	OB24355A	Fuse Resistor 330 1/4W J (EP, SWT, GER, UK)	R313	OB09707A	RK 18K 1/6W J
					R314	OB09719A	RK 56K 1/6W J	
					R315	OB09709A	RK 22K 1/6W J	
					R316	OB09693A	RK 4.7K 1/6W J	
					R317	OB24284A	RF 1K 2W	
U301	OB60871B	Power Amp. P.C.B. IC μ PC1237H	R180L,R	OB05615A	RK 22K 1/4W J	C171L,R	OB05550A	CML 1000P 50V Z
Q171L,R	OB11246A	TR 2SC2240 (GR)	R181L,R	OB09301A	RK 2K 1/4W J	C172L,R	OB40776A	CE 47 μ 16V (LN)
Q172L,R	OB10078A	TR 2SC2240 (GR)	R182L,R	OB05577A	RK 330 1/4W J	C173L,R	OB05582A	CML 0.022 μ 50V J
Q173L,R	OB10078A	TR 2SC2240 (GR)	R183L,R	OB24355A	Fuse Resistor 330 1/4W J (EP, SWT, GER, UK)	C174L,R	OB40773A	CML 10P 50V
Q174L,R	OB10221A	TR 2SA1145 (Y)			RK 330 1/4W J (AUS, OTR, JPN)	C175L,R	OB47078A	CML 0.15 μ 63V J
Q175L,R	OB10222A	TR 2SC2705				C176L,R	OB47078A	CML 0.15 μ 63V J
Q301L,R	OB10078A	TR 2SC2240 (GR)	R184L,R	OB01679A	RK 100 1/4W J	C177L,R	OB40783A	CE 220 μ 63V
Q302L,R	OB06180A	TR 2SA970	R185L,R	OB01679A	RK 100 1/4W J	C178L,R	OB40783A	CE 220 μ 63V
Q303	OB06155A	TR 2SA733	R186L,R	OB24288R	RF 1 1/2W J	C182L,R	OB40652A	CE 10 μ 50V (LN)
Q304	OB10078A	TR 2SC2240 (GR)	R187L,R	OB24288R	RF 1 1/2W J	C183L,R	OB47126A	CC 220P 50V K (EP, SWT, GER, UK)
ZD301	OB12619A	ZD 6.8V B2	R188L,R	OB24288R	RF 1 1/2W J		OB09302A	CML 100P 50V J (AUS, OTR, JPN)
ZD71L,R	OB12360A	ZD 2.7V B2	R189L,R	OB24288R	RF 1 1/2W J	C184L,R	OB41507A	CML 22P 50V J
D301	OB06398A	SiD 1SS176	R190L,R	OB24286A	RC 0.22 5W	C185L,R	OB47130A	CC 1000P 50V Z (EP, SWT, GER, UK)
D302,303	OB12693A	SiD S5688B	R191L,R	OB24286A	RC 0.22 5W			CSP 1000P 160V J
D304	OB12693A	SiD S5688B	R192L,R	OB24286A	RC 0.22 5W	C186L,R	OB41772A	CE 2.2 μ 50V
L171L,R	OB51376A	Coil 0.8 μ H	R193L,R	OB24286A	RC 0.22 5W	C301	OB40558A	CE 10 μ 63V
TH301	OB19021A	Thermistor	R194L,R	OB24280A	RC 5.6 5W	C302	OB40779A	CE 2.2 μ 50V
VR71L,R	OB32190A	Semi VR 1K	R195L,R	OB24278A	RF 3.3 1W	C303	OB40558A	CE 2.2 μ 50V
R171L,R	OB01679A	RK 100 1/4W J	R196L,R	OB24304R	RF 22 1/2W	C304	OB40774A	CE 100 μ 16V (BP)
R171L,R	OB01679A	RK 12K 1/4W J	R197L,R	OB24304R	RF 22 1/2W	C305	OB40784A	CE 4.7 μ 50V
R172L,R	OB09263A	Fuse Resistor 2.4K 1/4W J (EP, SWT, GER, UK)	R200L,R	OB09301A	RK 2K 1/4W J	C306	OB40780A	CE 100 μ 16V
R173L,R	OB24360A	Fuse Resistor 2.4K 1/4W J (EP, SWT, GER, UK)	R201L,R	OB20399A	RK 16K 1/4W J	RY301	OB90333A	Relay VB 24MBU-510-UL 24V 2P T-Post
			R301L,R	OB09701A	RK 10K 1/6W J			2P T-Post
			R302L,R	OB09685A	RK 2.2K 1/6W J			2P T-Post
R174L,R	OB24360A	Fuse Resistor 2.4K 1/4W J (EP, SWT, GER, UK)	R303L,R	OB09725A	RK 100K 1/6W J	TP1,2	OB02233A	2P T-Post
			R304L,R	OB09707A	RK 18K 1/6W J	CN110	OB81634A	2P T-Post
			R305L,R	OB09661A	RK 220 1/6W J	CN115L	OB81459A	2P T-Post
			R306L,R	OB09725A	RK 100K 1/6W J	CN115R	OB84276A	2P T-Post
			R307	OB24285A	RF 8.2K 1W	CN119	OB80354B	2P Connector Ass'y
			R308	OB09725A	RK 100K 1/6W J			Earth Lug (EP, SWT GER, UK) (2)
R175L,R	OB01706A	RK 47 1/4W J	R309	OB09733A	RK 220K 1/6W J			

6.14. Front P.C.B. Ass'y

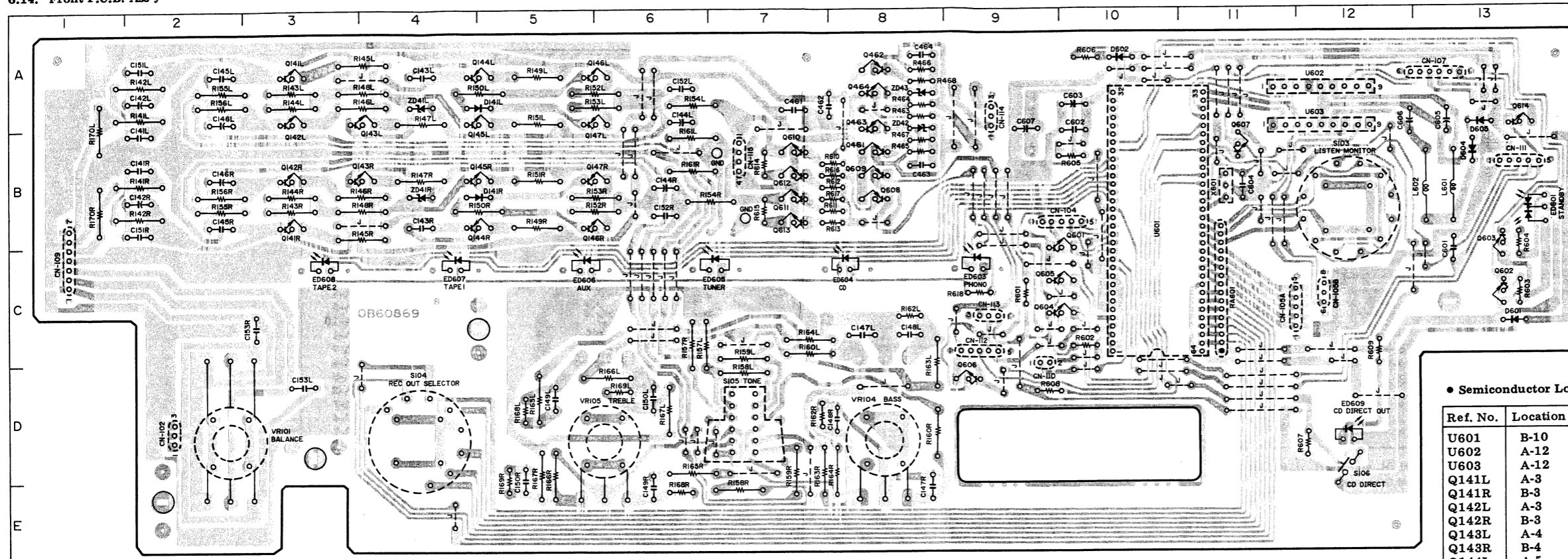


Fig. 6.14

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
U601	B-10	Q608	B-8
U602	A-12	Q609	B-8
U603	A-12	Q610	B-7
Q141L	A-3	Q611	B-7
Q141R	B-3	Q612	B-7
Q142L	A-3	Q613	B-7
Q142R	B-3	Q614	A-13
Q143L	A-4	ZD41L	A-4
Q143R	B-4	ZD41R	B-4
Q144L	A-5	ZD42	A-8
Q144R	B-5	ZD43	A-8
Q145L	A-4	ED601	B-13
Q145R	B-5	ED603	C-9
Q146L	A-5	ED604	C-8
Q146R	B-4	ED605	C-7
Q147L	A-5	ED606	C-5
Q147R	B-6	ED607	C-4
Q461	B-8	ED608	C-3
Q462	A-8	ED609	D-12
Q463	A-8	D141L	A-5
Q464	A-8	D141R	B-5
Q601	B-10	D601	C-13
Q602	C-13	D602	A-10
Q603	B-13	D604	B-13
A604	C-9	D605	A-13
Q605	C-9		
Q606	D-9		
Q607	B-11		

*: Unstocked parts.

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
6.14. Front P.C.B. Ass'y			ED609	OB12710A	LED Green	R166L,R	OB01856A	RK 8.2K 1/4W J	C602	OB47117A	CC 0.1μ 50V K
			D141L,R	OB06398A	SID 1SS176	R167L,R	OB09882A	RK 620 1/4W J	C603	OB40786A	CE 330μ 6.3V
	* BA08026A	Front P.C.B. Ass'y (EP, SWT, GER, UK)	D601	OB12693A	SID S5688B	R168L,R	OB20093A	RK 1.5M 1/6W J	C604	OB41554A	CC 0.022μ 25V Z
	* BA08025A	Front P.C.B. Ass'y (AUS, OTR, JPN)	D602	OB06398A	SID 1SS176	R169L,R	OB09716A	RK 43K 1/6W J	C605,606	OB40158A	CE 100μ 6.3V
			D604,605	OB92043A	SID S5688B	R170L,R	OB05641A	RK 47K 1/4W J	C607	OB40501A	CE 0.1F 5.5V
			X601	OB51378R	X'tal 4.19MHz	R463,464	OB09685A	RK 2.2K 1/6W J	S103	OB70186A	Rotary Switch 1-12NS
			L601,602	OB51378R	Inductor 680μH	R465,466	OB09685A	RK 2.2K 1/6W J	S104	OB70190A	Rotary Switch 1-8NS
			VR101	OB30139A	VR 250KMN	R467,468	OB09685A	RK 2.2K 1/6W J	S105	OB70196A	Push Switch 4-2S-F
			VR104,105	OB30140A	VR 100KC	R601,602	OB09717A	RK 47K 1/6W J	S106	OB70161A	Tact Switch
			RA601	OB21103A	R Network 47Kx15	R603,604	OB09661A	RK 220 1/6W J	CN102	OB80337B	3P Connector Ass'y
			R141L,R	OB01679A	RK 100 1/4W J	R605	OB09661A	RK 220 1/6W J	CN104	OB80338B	5P Connector Ass'y
			R142L,R	OB01684A	RK 470K 1/4W J	R606	OB09701A	RK 10K 1/6W J	CN105	OB80339A	8P Connector Ass'y
			R143L,R	OB01846A	RK 4.7K 1/4W J	R607,608	OB09717A	RK 47K 1/6W J	CN107	OB80368B	6P Connector Ass'y
			R144L,R	OB01846A	RK 4.7K 1/4W J	R609	OB09661A	RK 220 1/6W J	CN109	OB80346A	7P Connector Ass'y
			R145L,R	OB01706A	RK 47 1/4W J	R610,611	OB09717A	RK 47K 1/6W J	CN110	OB80353A	2P Connector Ass'y
			R146L,R	OB01706A	RK 47 1/4W J	R612,613	OB09717A	RK 47K 1/6W J	CN111	OB80362B	5P Connector Ass'y
			R147L,R	OB05614A	RK 1.8K 1/4W J	R614,615	OB09653A	RK 100 1/6W J	CN112	OB80347A	5P Connector Ass'y
			R148L,R	OB05560A	RK 18K 1/4W J	R616,617	OB09725A	RK 100K 1/6W J	CN113	OB80348B	3P Connector Ass'y
			R149L,R	OB05575A	RK 560 1/4W J	R618	OB09661A	RK 220 1/6W J	CN114	OB80361A	3P Connector Ass'y
			R150L,R	OB01933A	RK 220 1/4W J	C141L,R	OB47113A	CC 330P 50V K	CN115	OB80352B	4P Connector Ass'y
			R151L,R	OB05575A	RK 560 1/4W J	C142L,R	OB40777A	CE 0.47μ 50V		OB90429A	C.Clip (5)
			R152L,R	OB01706A	RK 47 1/4W J	C143L,R	OB41976A	CC 33P 50V J		OB80379B	Ground 7 Ass'y (1)
			R153L,R	OB01706A	RK 47 1/4W J	C144L,R	OB40784A	CE 4.7μ 50V		OB84383A	3P Wire Holder (CN105/CN113/CN114) (1)
			R154L,R	OB01857A	RK 1.0K 1/4W J	C145L,R	OB41974A	CC 100P 50V J			
			R155L,R	OB05508A	RK 56K 1/4W J	C146L,R	OB40784A	CE 4.7μ 50V			
			R156L,R	OB05784A	RK 560K 1/4W J	C147L,R	OB09045A	CML 0.027μ 50V J			
			R157L,R	OB01857A	RK 1.0K 1/4W J	C148L,R	OB41306A	CML 0.47μ 50V J			
			R158L,R	OB01854A	RK 39K 1/4W J	C149L,R	OB05687A	CML 1200P 50V J			
			R159L,R	OB01854A	RK 39K 1/4W J	C150L,R	OB05582A	CML 0.022μ 50V J			
			R160L,R	OB09075A	RK 30K 1/4W J	C151L,R	OB05582A	CML 0.022μ 50V J			
			R161L,R	OB05641A	RK 47K 1/4W J	C152L,R	OB05582A	CML 0.022μ 50V J			
			R162L,R	OB09696A	RK 6.2K 1/6W J	C153L,R	OB47197A	CSP 33P 50V J			
			R163L,R	OB05698A	RK 1.5K 1/4W J	C461,462	OB05550A	CML 1000P 50V J			
			R164L,R	OB01857A	RK 1.0K 1/4W J	C463,464	OB47081A	CML 0.47μ 63V J			
			R165L,R	OB01888A	RK 10K 1/4W J	C601	OB41554A	CC 0.022μ 25V Z			

7. SCHEMATIC DIAGRAMS

7.1. IC Block Diagrams

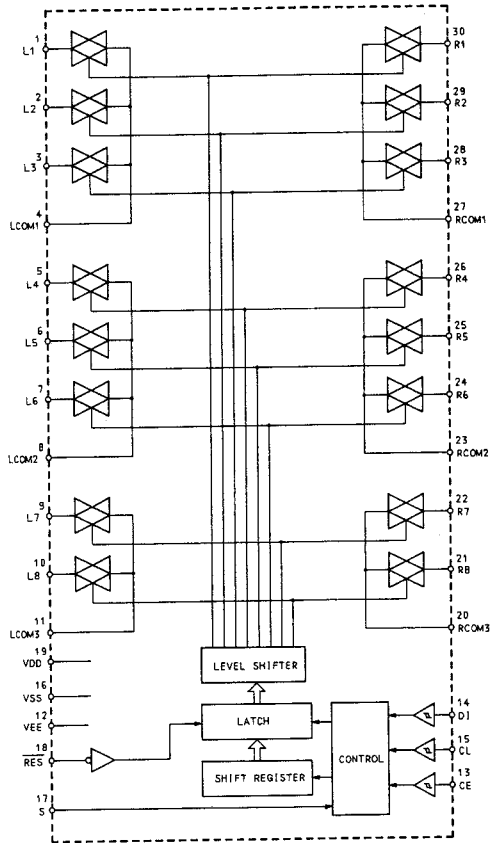


Fig. 7.1.1 Analog Function Switch LC7822

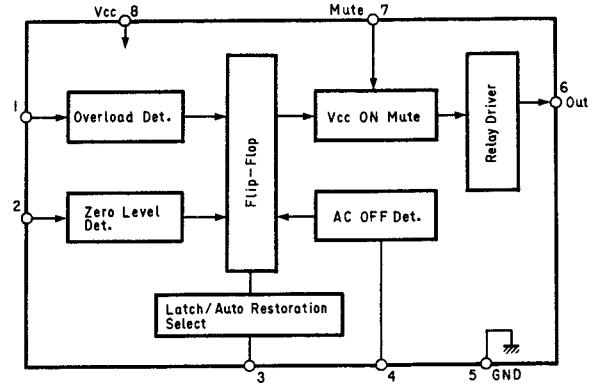
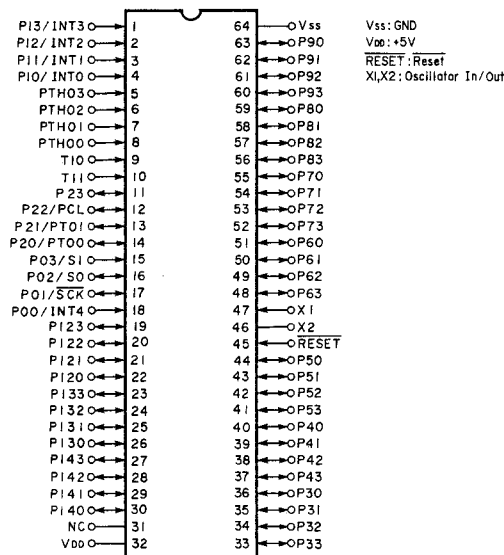
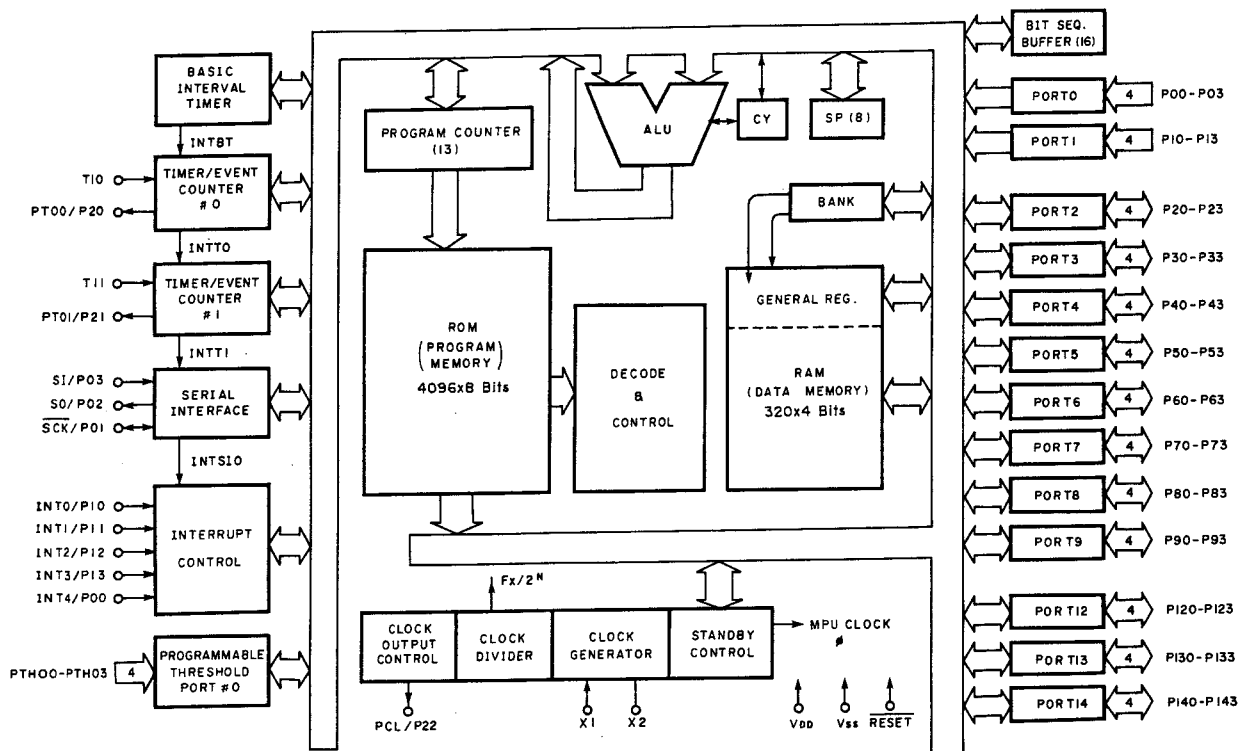


Fig. 7.1.2 Power Amp. Protector μ PC1237

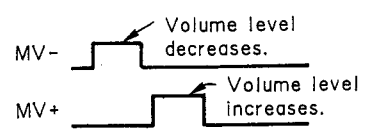


(TOP VIEW)

Fig. 7.1.3 Microprocessing Unit (MPU) μPD75104CW

U601 μ PD75104CW (System Control MPU)

Pin No.	Signal Name	In/Out	Function
1 2	INT3 INT2	I	Not used.
3	PRT	I	Protection signal sent from pin 6 (Out) of U301 (μ PC1237H) on the Power Amp. P.C.B. Ass'y. Normally "H". If any trouble, such as overload occurs, this pin goes "L". In this case, this IC sets pin 11 (SPO) to "L", causing Q304 on the Power Amp. P.C.B. Ass'y turns OFF, relay RY301 turns OFF, and the power amp. is disconnected from the speakers.
4	IRP	I	Remote control signal input.
5	MSW	I	Model select input. Fixed at "L".
6 7 8 9 10	—	I	Not used. Fixed at "L".
11	SPO	O	Speaker relay (RY301) ON/OFF control signal. Normally "H". Becomes "L" if trouble (overload, etc.) occurs.
12	PRO	O	Power ON relay drive signal. Active "H".
13	$\overline{\text{AFR}}$	O	Analog function selectors (U102 and U103 on the Selector P.C.B. Ass'y) reset signal. Active "L".
14	ACE	O	Chip enable signal for analog function selectors (U102 and U103). Active "H".
15	SI	I	Not used. Fixed at "L".
16	SO	O	Serial data output for analog function selectors (U102 and 103).
17	CL	O	Clock pulse for serial data at pin 16 (SO).
18	PIN	I	Power OFF signal input. Normally "H". Immediately becomes "L" when the power is turned OFF.
19	$\overline{\text{PHL}}$	O	Phono LED drive signal. Active "L".
20	$\overline{\text{CDL}}$	O	CD LED drive signal. Active "L".
21	$\overline{\text{TUL}}$	O	Tuner LED drive signal. Active "L".
22	$\overline{\text{AUL}}$	O	AUX LED drive signal. Active "L".
23	$\overline{\text{T1L}}$	O	Tape 1 LED drive signal. Active "L".
24	$\overline{\text{T2L}}$	O	Tape 2 LED drive signal. Active "L".
25	$\overline{\text{STL}}$	O	Standby LED drive signal. Active "L".
26	$\overline{\text{POL}}$	O	Power ON LED drive signal. Active "L".
27 28 29 30	—	—	Not used. (Open)
31	NC	—	Non connection.
32	VDD	—	+5 V is supplied.
33 34	MR- MR+	O	Input select rotary encoder turning signal.
35	MV-	O	Output volume down signal.

Pin No.	Signal Name	In/Out	Function
36	MV+	O	Output volume up signal.  MV- Volume level decreases. MV+ Volume level increases.
37	$\overline{\text{LMU}}$	O	Line mute signal. Active "L".
38	$\overline{\text{RMU}}$	O	Record mute signal. Active "L".
39	CDO	O	CD direct output select signal. Active "H".
40	ATO	O	Audio mute signal. Active "H".
41 42	—	—	Not used. Fixed at "L".
43	CDI	I	CD Direct switch input.
44	$\overline{\text{ATI}}$	I	Audio Mute switch input. "L" when it is pressed.
45	$\overline{\text{RESET}}$	I	System reset input. Active "L".
46 47	X2 X1	—	4.19 MHz ceramic resonator is connected.
48 49 50	RS3 RS2 RS1	I	Listen Monitor rotary switch input signals.
51 to 55	EC5 to EC1	I	Input signals from Input Select Rotary Encoder.
56	—	—	Not used. Fixed at "L".
57	DIR	I	Rec. Out selector "CD DIRECT" input.
58	$\overline{\text{T2R}}$	I	Rec. Out selector "COPY1 to 2" input. Set to "L" when selected.
59	$\overline{\text{T1R}}$	I	Rec. Out selector "COPY2 to 1" input. Set to "L" when selected.
60	$\overline{\text{AUR}}$	I	Rec. Out selector "AUX" input. Set to "L" when selected.
61	$\overline{\text{TUR}}$	I	Rec. Out selector "TUNER" input. Set to "L" when selected.
62	$\overline{\text{CDR}}$	I	Rec. Out selector "CD" input. Set to "L" when selected.
63	$\overline{\text{PHR}}$	I	Rec. Out selector "PHONO" input. Set to "L" when selected.
64	VSS	—	Grounded.

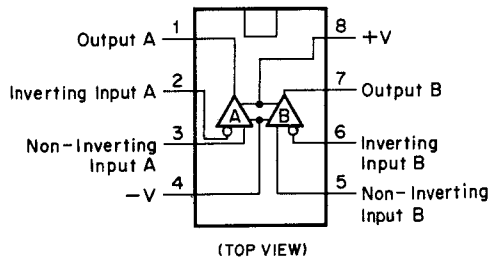


Fig. 7.1.4 Operational Amp. NJM7805A, μ PC4570C

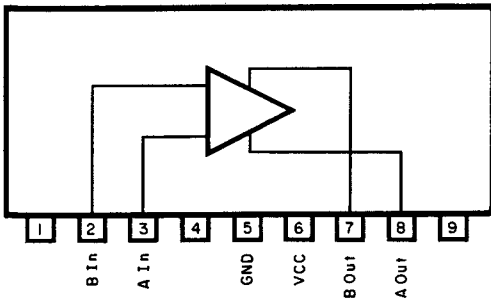


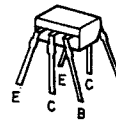
Fig. 7.1.5 Motor Driver BA6208



2SA733
2SA953
2SC945
2SC2002
2SC2240
2SC2878

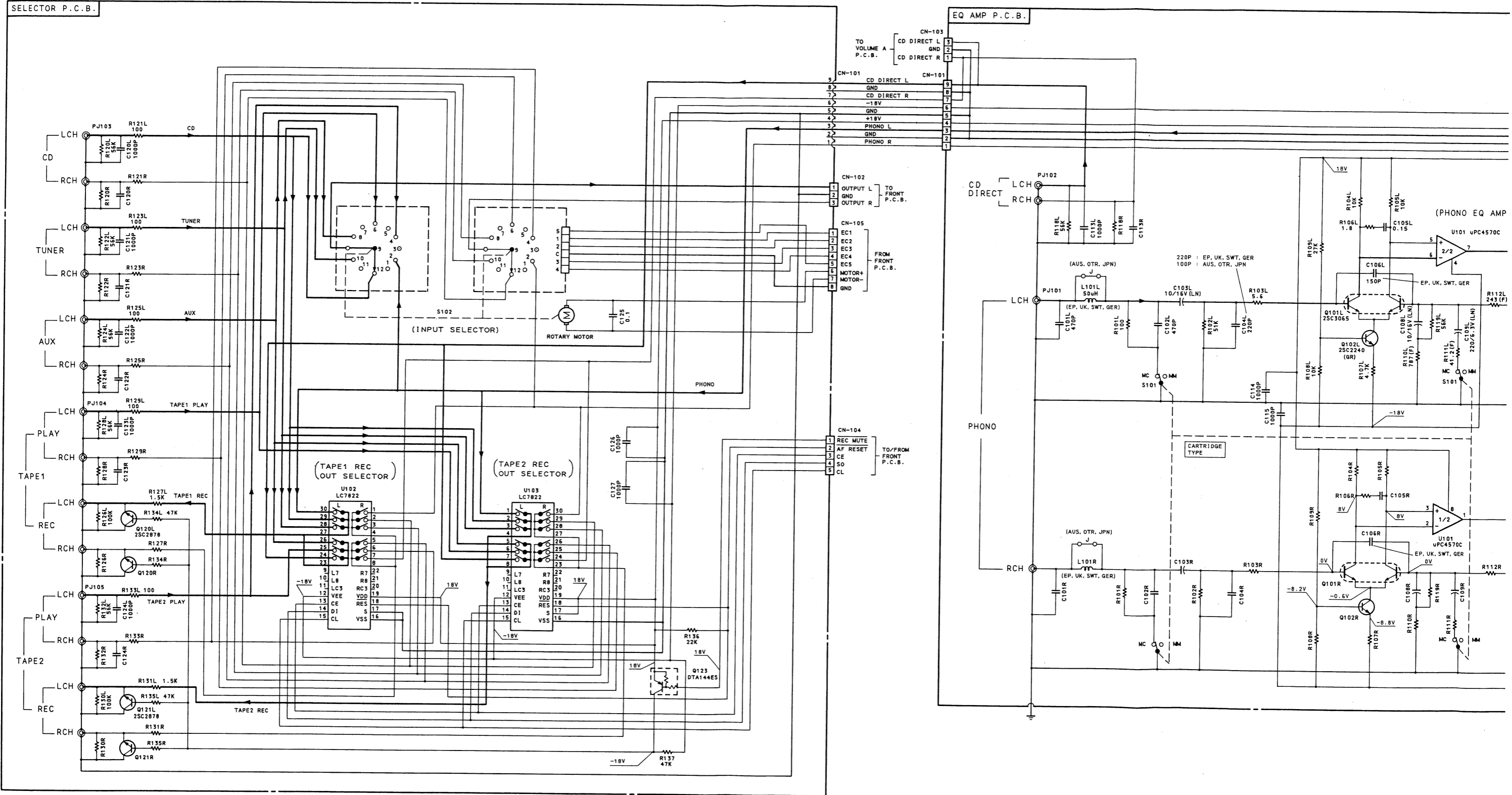


DTA144ES



2SC3065

7.2. Schematic Diagrams
 (1) Input/Rec. Out Selector & Eq. Amp. Section



- Notes: 1. Diode is 1SS53, 1S1555, or 1SS176 unless otherwise specified.
 2. 2SA733, 2SA608SP, 2SA1048 and 2SA1175 are interchangeable with each other.
 3. 2SC945, 2SC536SP, 2SC2458 and 2SC2785 are interchangeable with each other.
 4. Description of electrolytic capacitor: 100/16V = 100μ 16V

Fig. 7.2.1

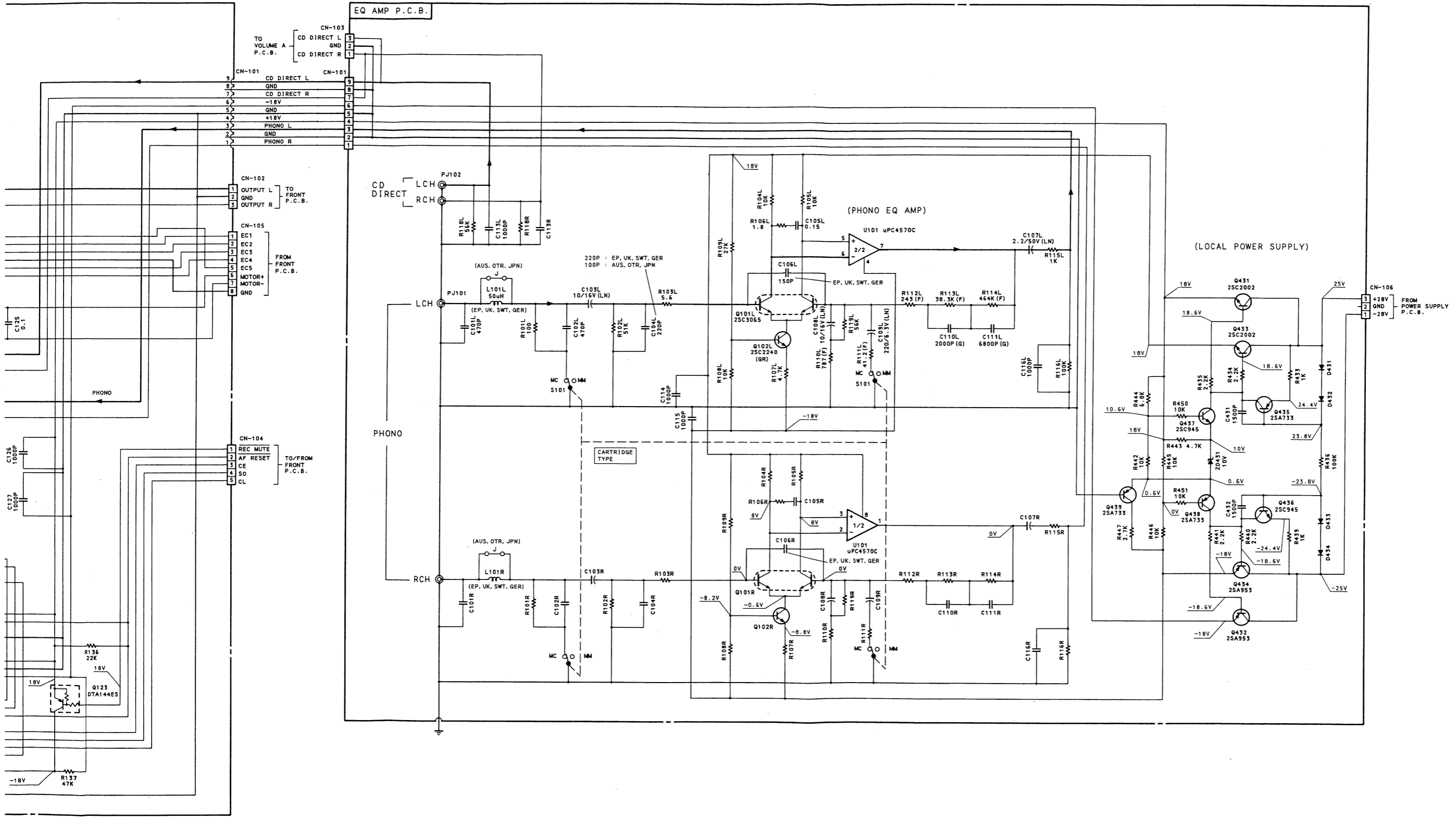


Fig. 7.2.1

(2) Preamp. & System Control Section

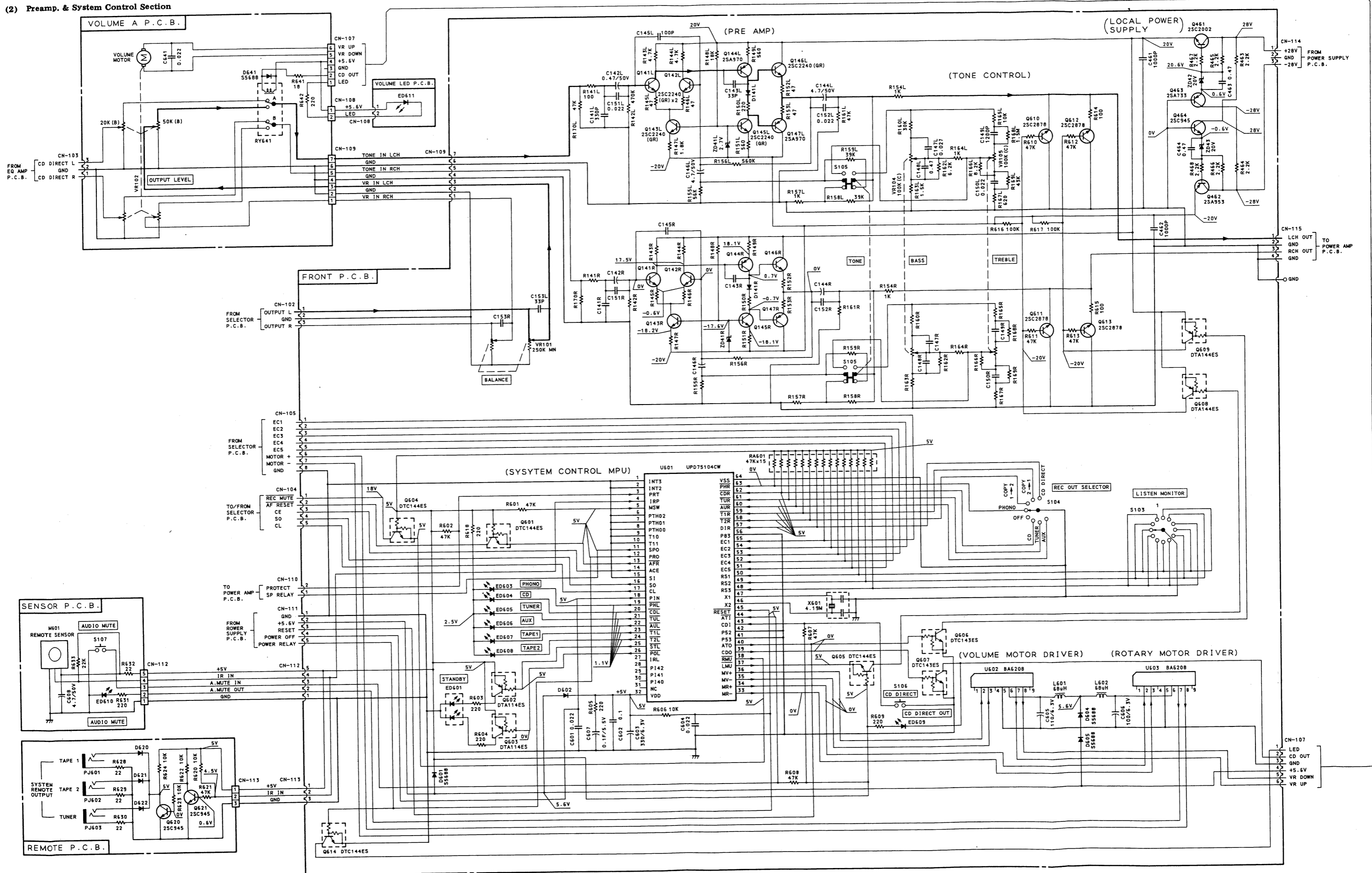
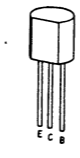
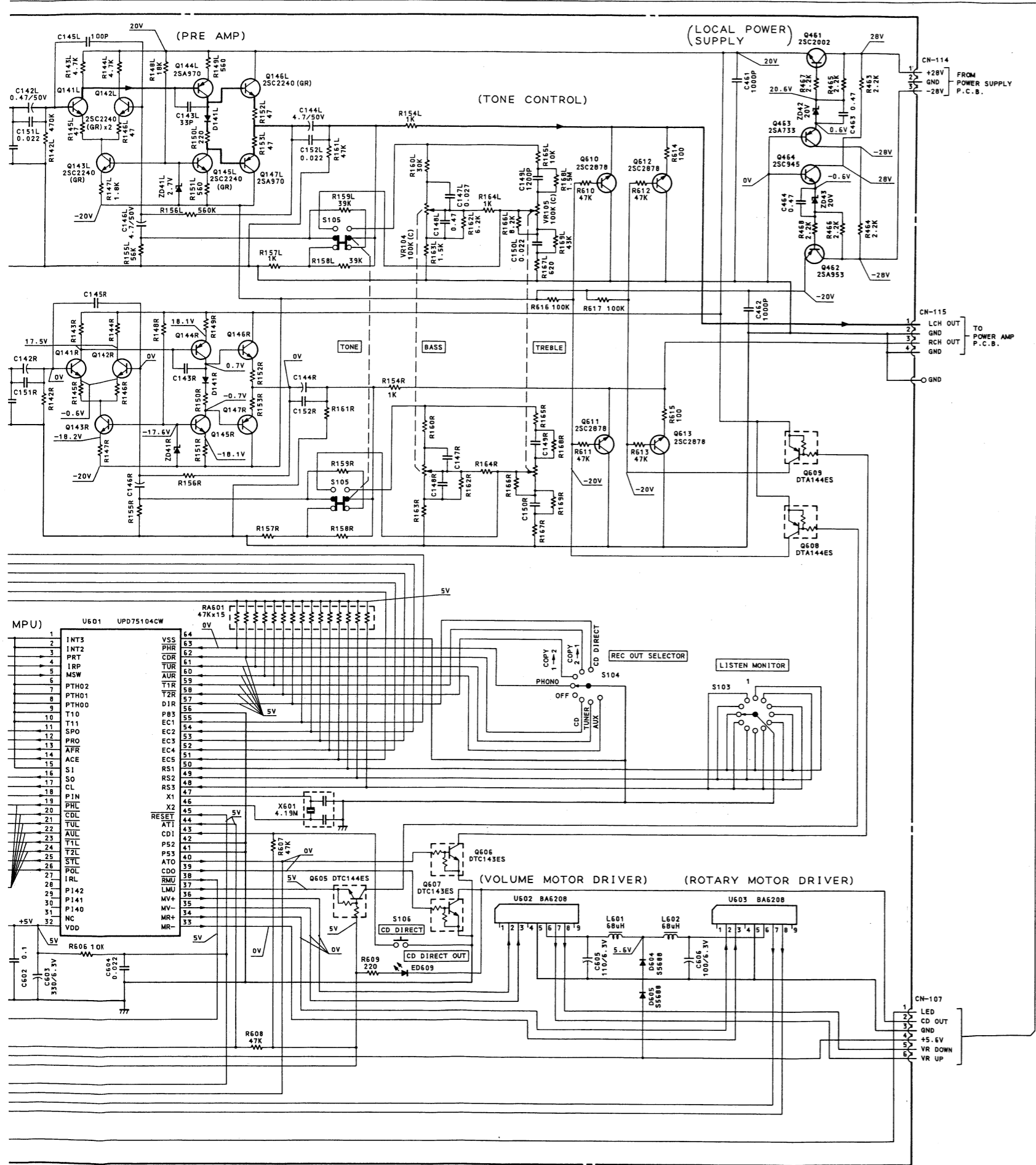
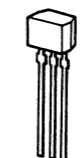


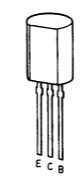
Fig. 7.2.2



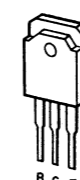
2SA733
2SA953
2SA970
2SC945
2SC2002
2SC2240
2SC2878



DTA114ES
DTA144ES
DTC124ES
DTC143ES
DTC144ES



2SA1145
2SC2705



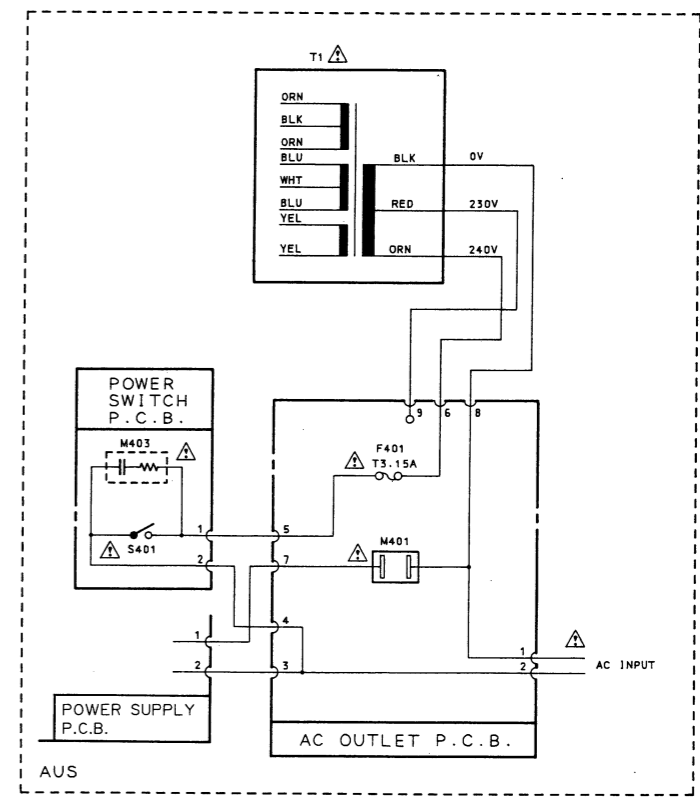
2SA1491
2SC3855



2SA1358
2SC3421



78M05



- Notes: 1. Diode is 1SS53, 1S1555, or 1SS176 unless otherwise specified.
 2. 2SA733, 2SA608SP, 2SA1048 and 2SA1175 are interchangeable with each other.
 3. 2SC945, 2SC536SP, 2SC2458 and 2SC2785 are interchangeable with each other.
 4. Description of electrolytic capacitor: 100/16V = 100μ 16V

Fig. 7.2.2

(3) Power Amp. & Power Supply Section

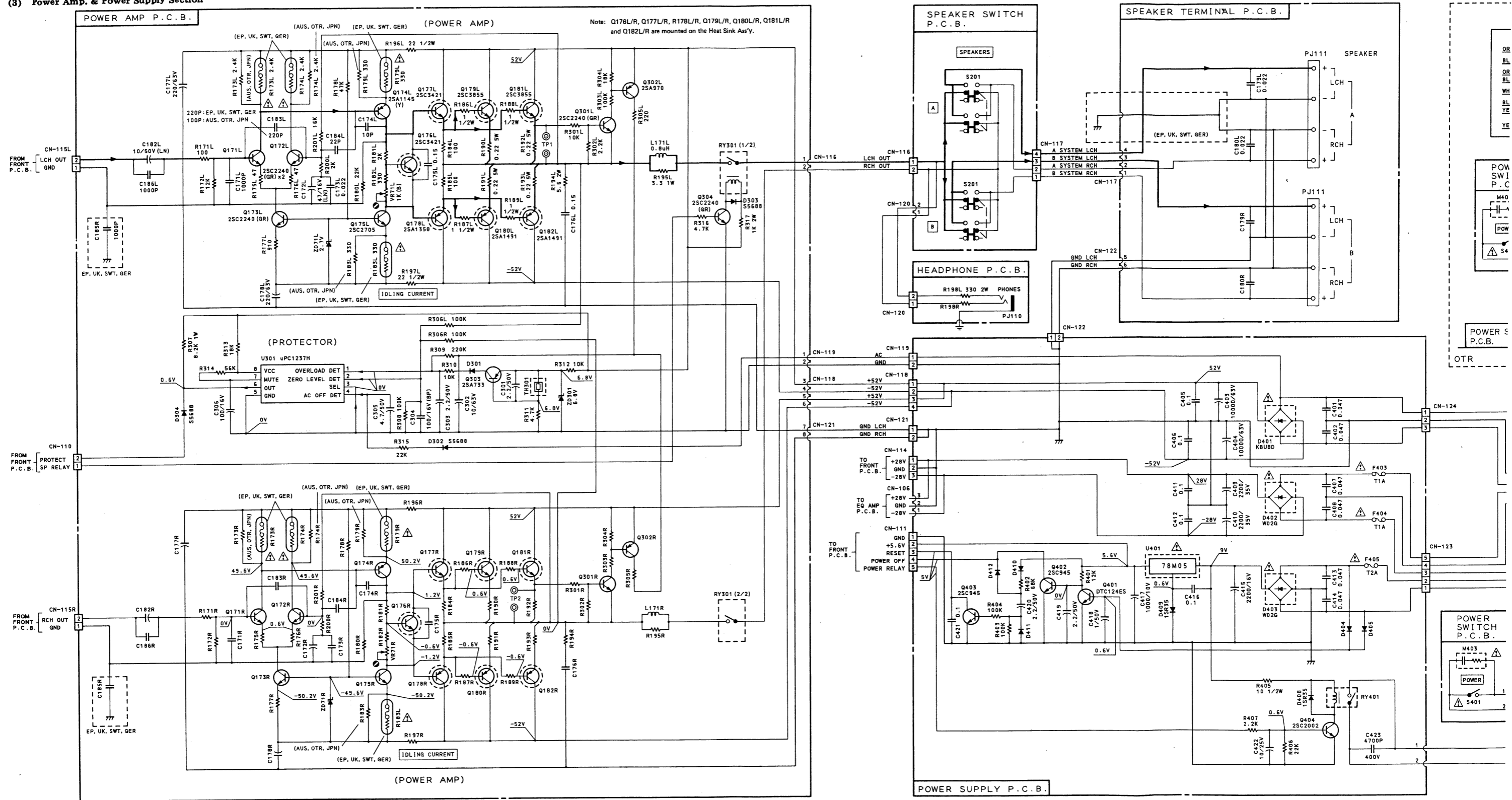


Fig. 7.2.3

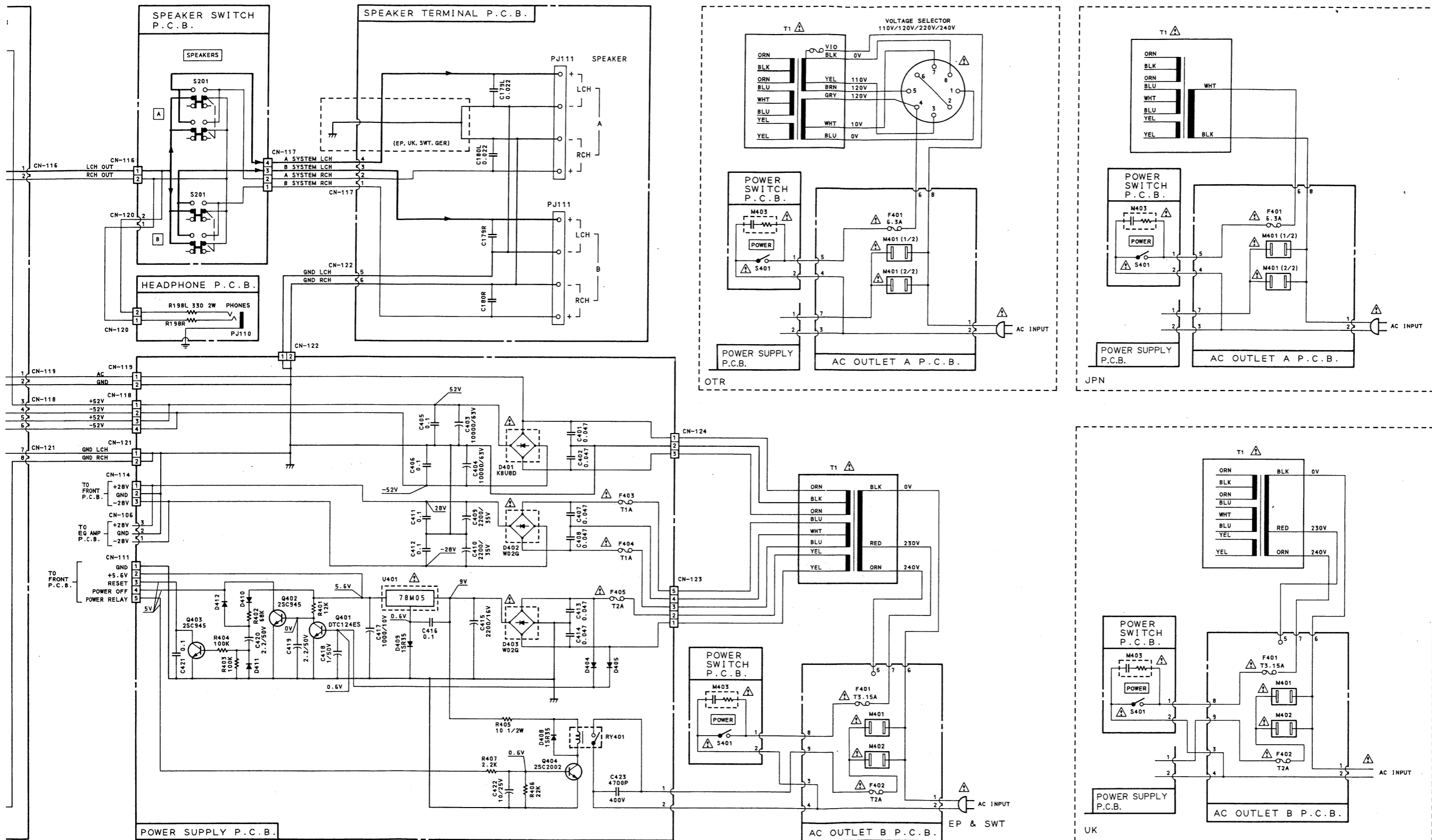



Fig. 7.2.3

WARNING:
 Parts marked with the symbol  have critical characteristics.
 Use ONLY replacement parts recommended by the manufacturer.
 It is recommended that the unit be operated from a suitable DC supply or batteries during initial check-out procedures.

8. WIRING DIAGRAM

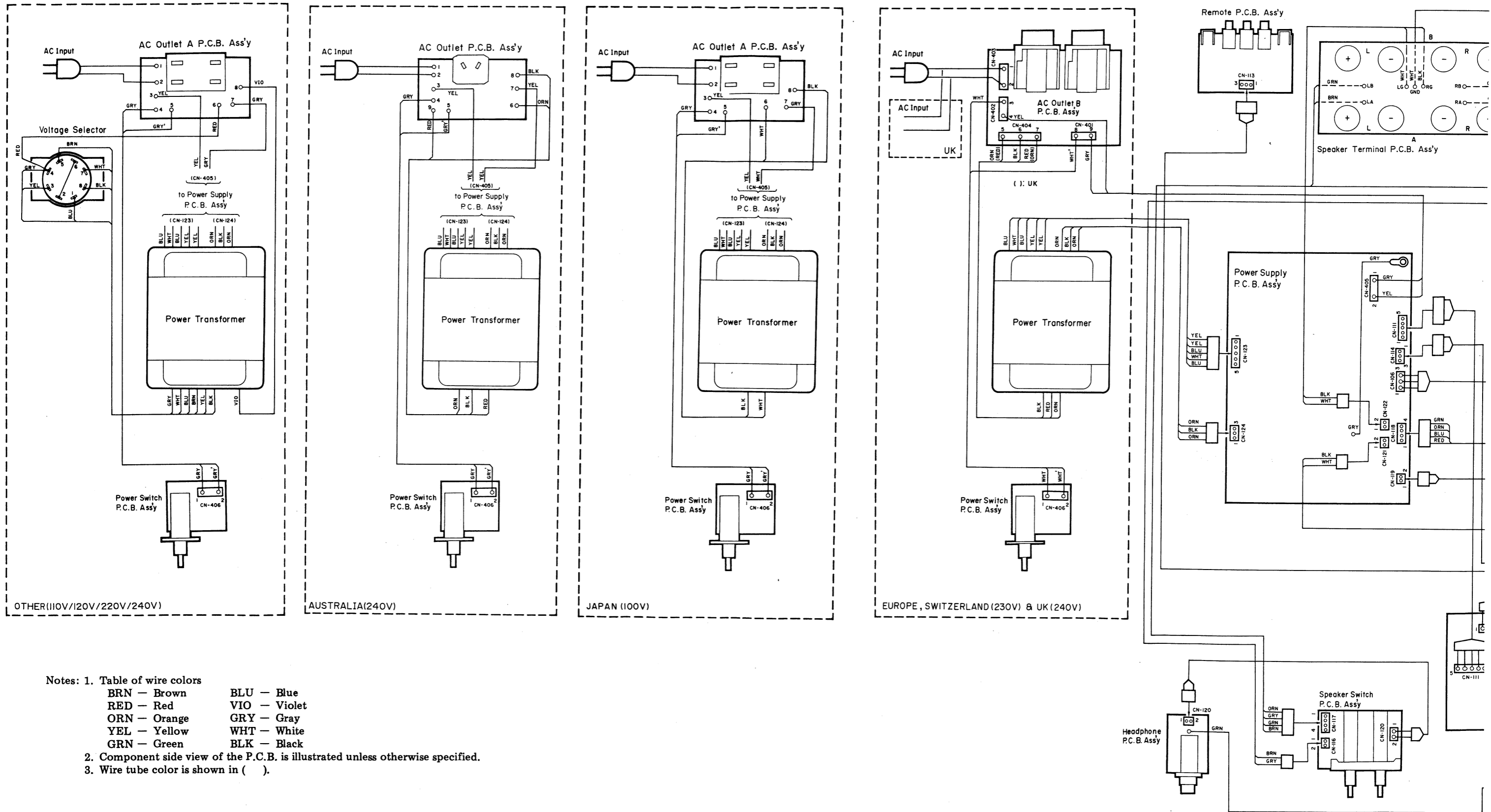


Fig. 8

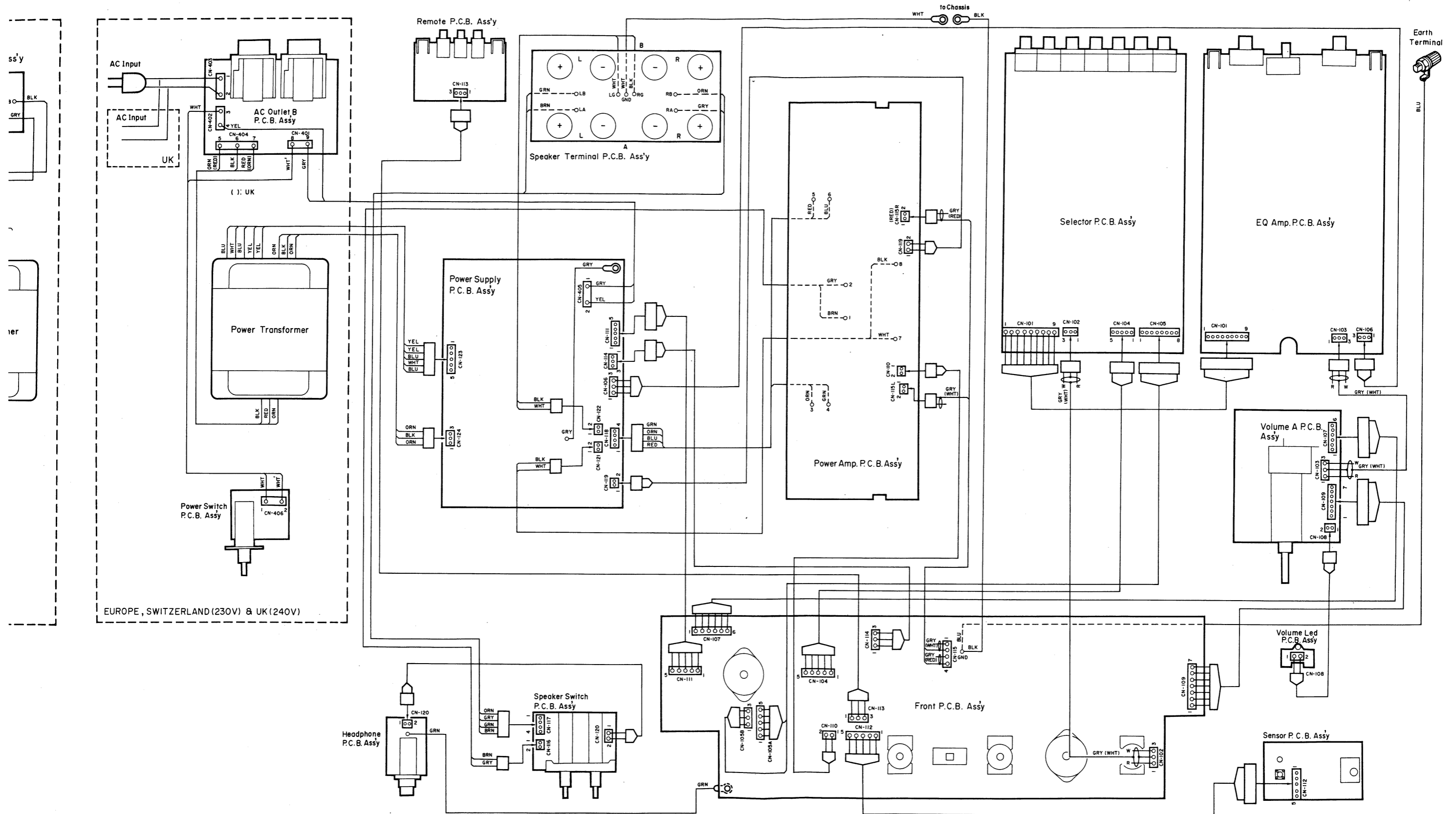


Fig. 8

9. BLOCK DIAGRAM

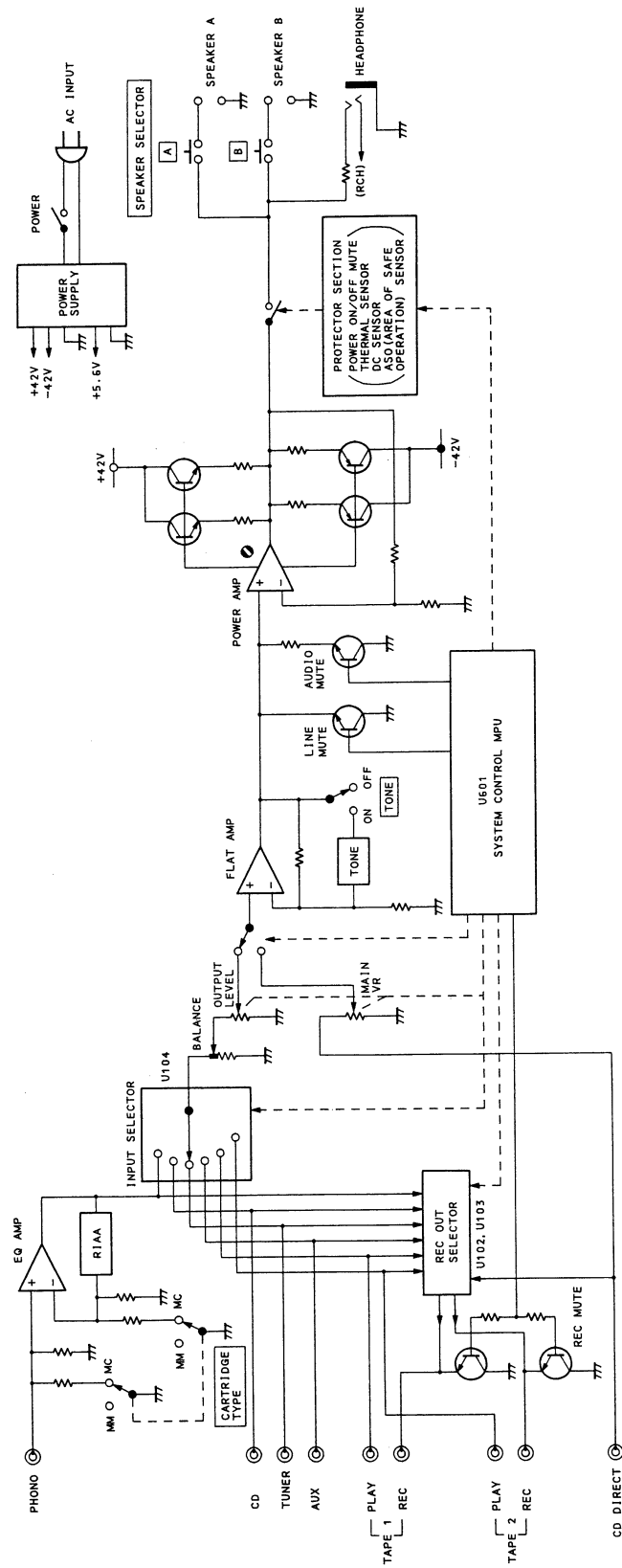


Fig. 9

10. SPECIFICATIONS

For areas other than Scandinavia and Switzerland

● Power Amplifier Section

Note: Unless noted otherwise, specifications are in accordance with IHF-A-202 measured from any high-level input (CD/TUNER/TAPE/AUX) to the speaker output.

Continuous Average Output

Power

(both channels driven, 80 watts per channel into 8 ohms
20–20,000 Hz, 0.1% THD)
(DIN, both channels driven, . . 130 watts per channel into 4 ohms
1 kHz, 1% THD)

Dynamic Output Power 180 watts per channel into 4 ohms
270 watts per channel into 2 ohms

Power Bandwidth 10–50,000 Hz

Frequency Response 20–20,000 Hz +0, –0.5 dB
5–80,000 Hz +0, –3 dB

Signal to Noise Ratio Better than 105 dB re rated power
(A-WTD, input shorted) Better than 83 dB (IHF-A-202)

Total Harmonic Distortion 0.1% or less
(8 ohms, rated power,
20 Hz–20 kHz)

Headphone Output (into 187 mW
40 ohms)

Output Current Capability 28 A peak per channel

● Preamplifier section

Note: Unless noted otherwise, specifications are in accordance with IHF-A-202. Except for sensitivity, S/N, and tone control characteristics (which are measured to the speaker outputs), measurements are made from the specified input to Rec Out.

Input Sensitivity/Impedance

Phono MC 0.125 mV/100 ohms
MM 2.5 mV/47 kohms
CD/Tuner/Tape/Aux 150 mV/20 kohms

Maximum input level (1 kHz)

Phono MC 9 mV
MM 180 mV

Output Level/Impedance

Rec Out 150 mV/1.5 kohms

Total Harmonic Distortion

(1 kHz, Rec Out, 1 V output level)

Phono MC 0.01% or less
MM 0.008% or less

RIAA Deviation

Phono MC/MM 30–20,000 Hz ± 0.5 dB

Signal to Noise Ratio

(to speaker output, IHF-A-202)

Phono MC 70 dB
MM 82 dB

Tone Controls

Bass 20 Hz, ± 10 dB
Treble 20 kHz, ± 10 dB

● General

Power Source 120, 230, 240 or 110/120/220/240 VAC,
50/60 Hz (according to country of sale)

Power Consumption 600 W max.

Convenience Outlets Switched x 2, maximum capacity 200 W (total)

Dimensions* 430 (W) x 125 (H) x 360 (D) mm

Approximate Weight 15.0 kg

● Remote Control Unit

Principle Infrared pulse system

Power Supply 3 VDC (1.5 V x 2)

Dimensions* 64 (W) x 18 (H) x 176 (D) mm

Approximate Weight 140 g (including batteries)

For Scandinavia and Switzerland

● **Power amplifier section**

Note: Unless noted otherwise, specifications are in accordance with IHF-A-202 measured from any high-level input (CD/TUNER/TAPE/AUX) to the speaker output.

Continuous Average Output . . . 80 watts per channel into 8 ohms
Power (both channels driven,
20–20,000 Hz, 0.1% THD)
Dynamic Output Power 180 watts per channel into 4 ohms
270 watts per channel into 2 ohms
Power Bandwidth 10–50,000 Hz
Frequency Response 20–20,000 Hz +0, –0.5 dB
5–80,000 Hz +0, –3 dB
Signal to Noise Ratio Better than 105 dB re rated power
(A-WTD, input shorted) Better than 83 dB (IHF-A-202)
Total Harmonic Distortion 0.1% or less
(8 ohms, rated power,
20 Hz–20 kHz)
Headphone Output (into 187 mW
40 ohms)
Output Current Capability 28 A peak per channel

● **Preamplifier section**

Note: Unless noted otherwise, specifications are in accordance with IHF-A-202. Except for sensitivity, S/N, and tone control characteristics (which are measured to the speaker outputs), measurements are made from the specified input to Rec Out.

Input Sensitivity/Impedance
Phono MC 0.125 mV/100 ohms
MM 2.5 mV/47 kohms
CD/Tuner/Tape/Aux 150 mV/20 kohms
Maximum input level (1 kHz)
Phono MC 9 mV
MM 180 mV
Output level/Impedance
Rec Out 150 mV/1.5 kohms
Total Harmonic Distortion
(1 kHz, Rec Out, 1 V output level)
Phono MC 0.01% or less
MM 0.008% or less
RIAA deviation
Phono MC/MM 30–20,000 Hz ±0.5 dB
Signal to Noise Ratio
(to speaker output, IHF-A-202)
Phono MC 70 dB
MM 82 dB
Tone Controls
Bass 20 Hz, ±10 dB
Treble 20 kHz, ±10 dB

● **General**

Power Source 230 VAC, 50/60 Hz
Power Consumption 400 W max.
Convenience Outlets Switched x 2, maximum capacity 200W (total)
Dimensions* 430 (W) x 125 (H) x 360 (D) mm
Approximate Weight 15.0 kg

● **Remote control unit**

Principle Infrared pulse system
Power Supply 3 VDC (1.5 V x 2)
Dimensions* 64 (W) x 18 (H) x 176 (D) mm
Approximate Weight 140 g (including batteries)

*: Dimensions do not include protruding parts. Height is the panel height.

● Specifications and design are subject to change for further improvement without notice.

Service Manual

Amplifier 1

Nakamichi Corporation/Tokyo Office
Nakamichi America Corporation
Nakamichi Canada
Nakamichi Australia
Nakamichi GmbH

Shinjuku Daiichi Seimei Bldg., 2-7-1 Nishishinjuku, Shinjuku-ku, Tokyo 163 Phone: (03) 3342-4461 Telex: 2324721 (NAKAM J)
19701 South Vermont Ave., Torrance, CA 90502 Phone: (213) 538-8150
276 South West, Marine Drive, Vancouver, B.C. V5X 2R4 Phone: (604) 324-7535
Level 2, 61A Dunning Ave., Rosebery, N.S.W. 2018 Phone: (02) 313-7071/7090
Praunheimer Landstraße 32, 6000 Frankfurt Main 90 Phone: (069) 768-2021 (Office), 2025 (Service)