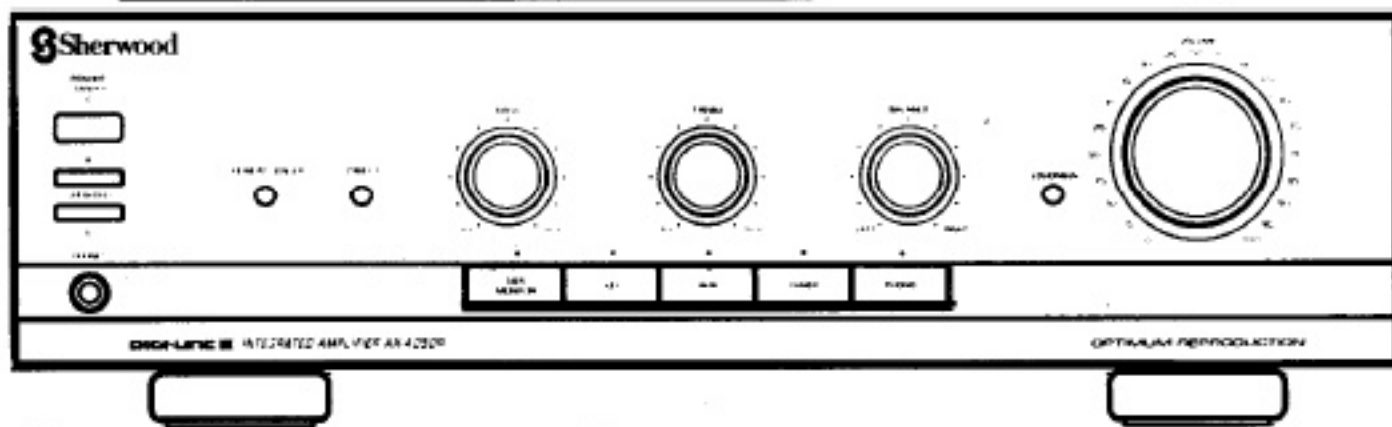


SERVICE MANUAL



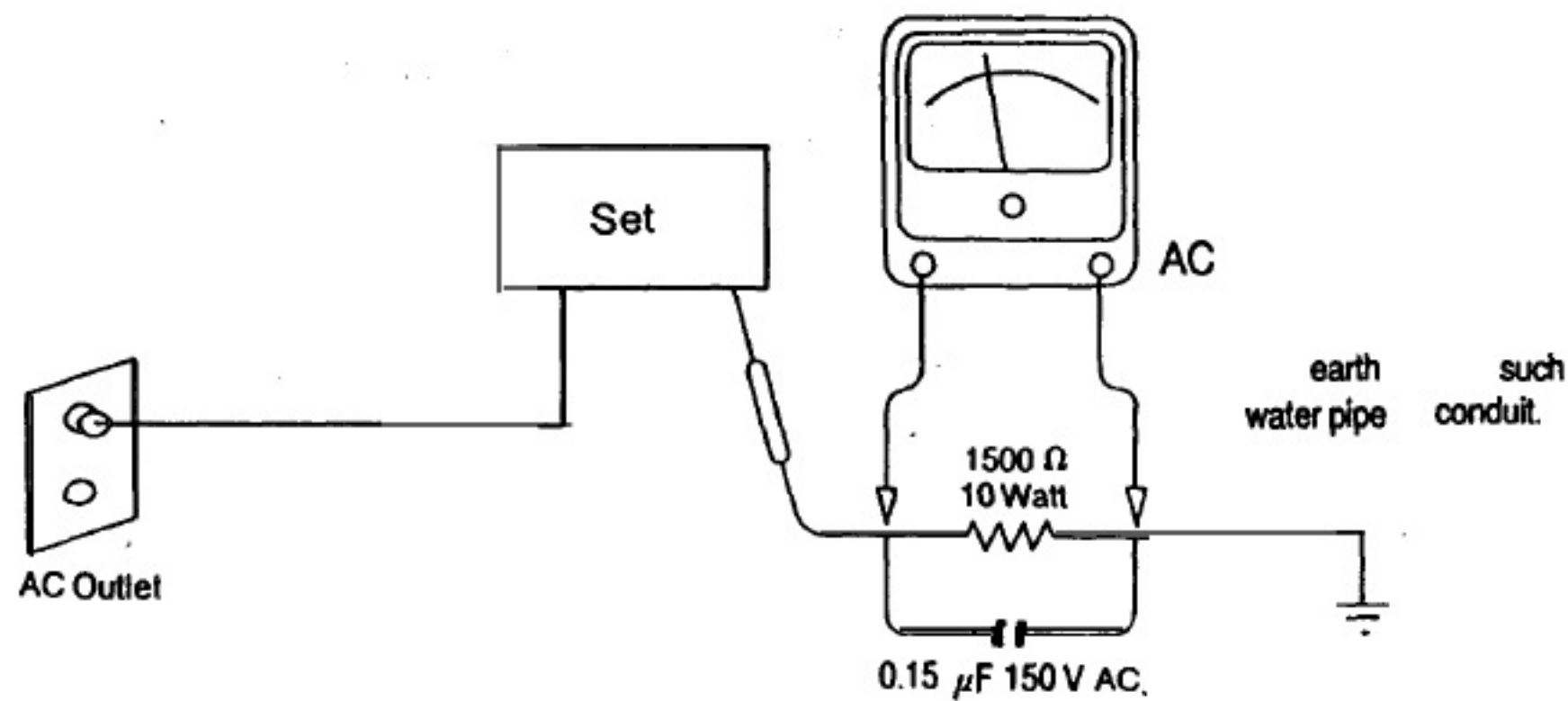
INTEGRATED



Sherwood

Ω

exceed



probe on each

metallic part.

μ F capacitor. Ω Δ Ω a'

μ F

SPECIFICATIONS

No.	Description	Unit	Nominal	Limit
1	RMS output power; both channels driven at 40 Hz-20 kHz freq., 0.08% THD, 8 Ω load. both channels driven at 1 kHz freq., 0.08% THD, 8 Ω load	W	≥ 53	≥ 50
		W	≥ 55	≥ 50
2	Inter Modulation distortion (60 Hz:7 kHz=4:1 SMPTE) at 8 Ω load, 50 W output.	%	≤ 0.03	≤ 0.05
3	Input sensitivity at 1 kHz freq., 8 Ω load, 50 W output.	PHONO mV	2.5 ± 0.2	2.5 ± 0.3
		CD, TAPE mV	150 ± 10	150 ± 30
4	PHONO overload at 1 kHz freq., 0.1% THD PHONO input → TAPE2 MON. output	mV	≥ 145	≥ 140
5	PHONO equalization RIAA 40 Hz - 20 kHz, TAPE2 MON. output	dB	RIAA ± 1	RIAA ± 1.5
6	Frequency response at -3 dB	CD, TAPE Hz	10 - 55000	20 - 50000
7	Signal to noise ratio IHF-A weighted at volume max.	PHONO dB	≥ 73	≥ 70
		CD, TAPE dB	≥ 95	≥ 90
8	Tone control at 1 kHz 0 dB	100 Hz dB	± 10 ± 1	± 10 ± 2
		10 kHz dB	± 10 ± 1	± 10 ± 2
9	Channel Separation at input shorted CD, TAPE	1 kHz dB	≥ 55	≥ 50
		10 kHz dB	≥ 53	≥ 50
10	Crosstalk at 1 kHz freq. input shorted	CD ⇒ PHONO dB	≥ 67	≥ 65
11	Total harmonic distortion at 40 Hz - 20 kHz freq., 8 Ω load, 50 W output	40 Hz %	≤ 0.03	≤ 0.05
		1 kHz %	≤ 0.03	≤ 0.05
		20 kHz %	≤ 0.03	≤ 0.05

General

Speaker load impedance	8 Ω
Power consumptions	340 W
Dimensions (W × H × D)	440 × 110 × 245 mm (17-5/16 × 4-11/16 × 9-11/16)
Weight (Net)	6.3 kg (13.9 lbs)

Power requirements:

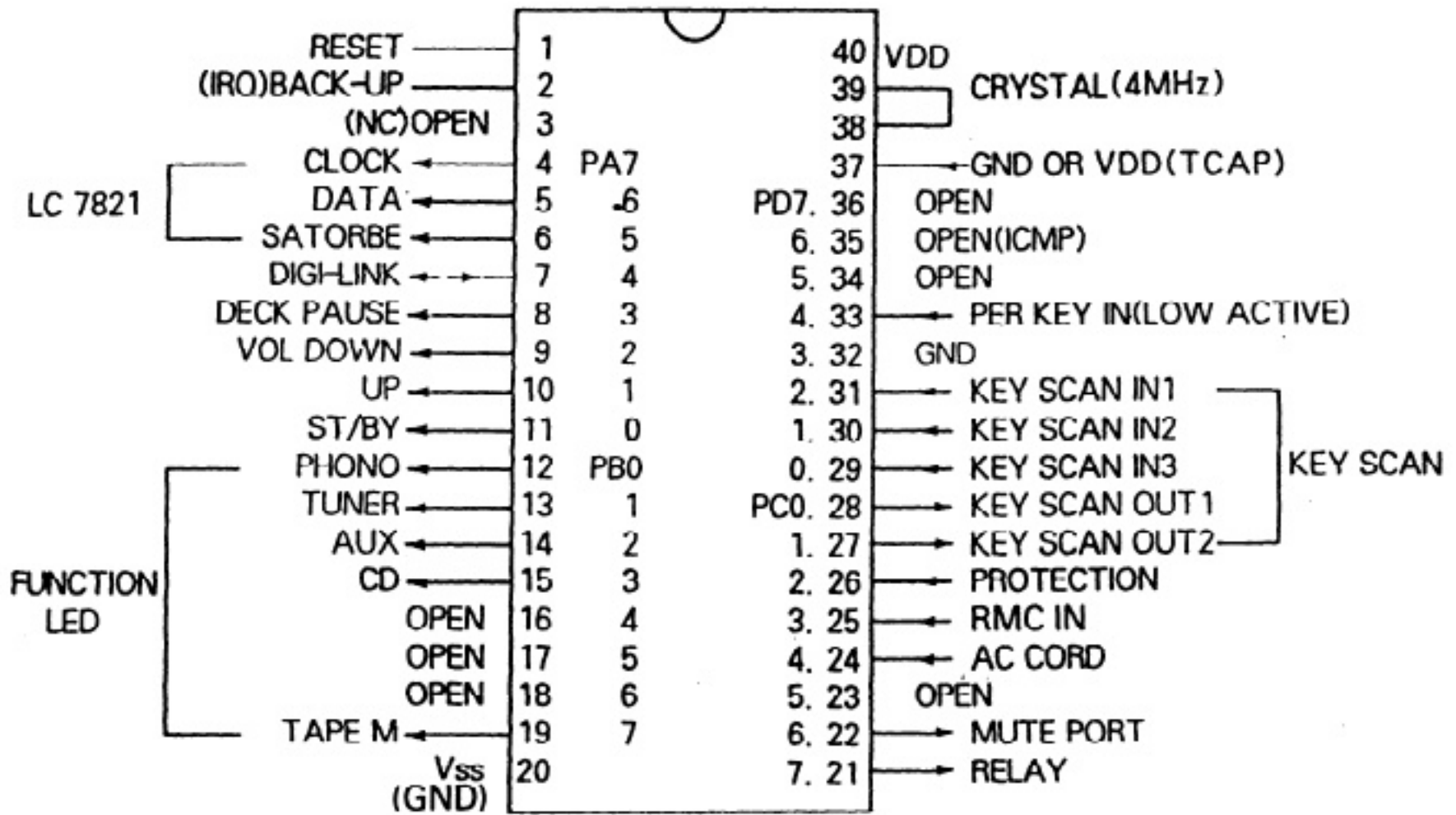
- A: 120 V 60 Hz for American/Canadian version
- B: 120/220 V 60/50 Hz multi voltage version (switchable)
- D: 230 V 50 Hz German/Gemeral European version
- E: 240 V 50 Hz for UK/Australian version
- G: 220 V 50 Hz for Other Area

Notes:

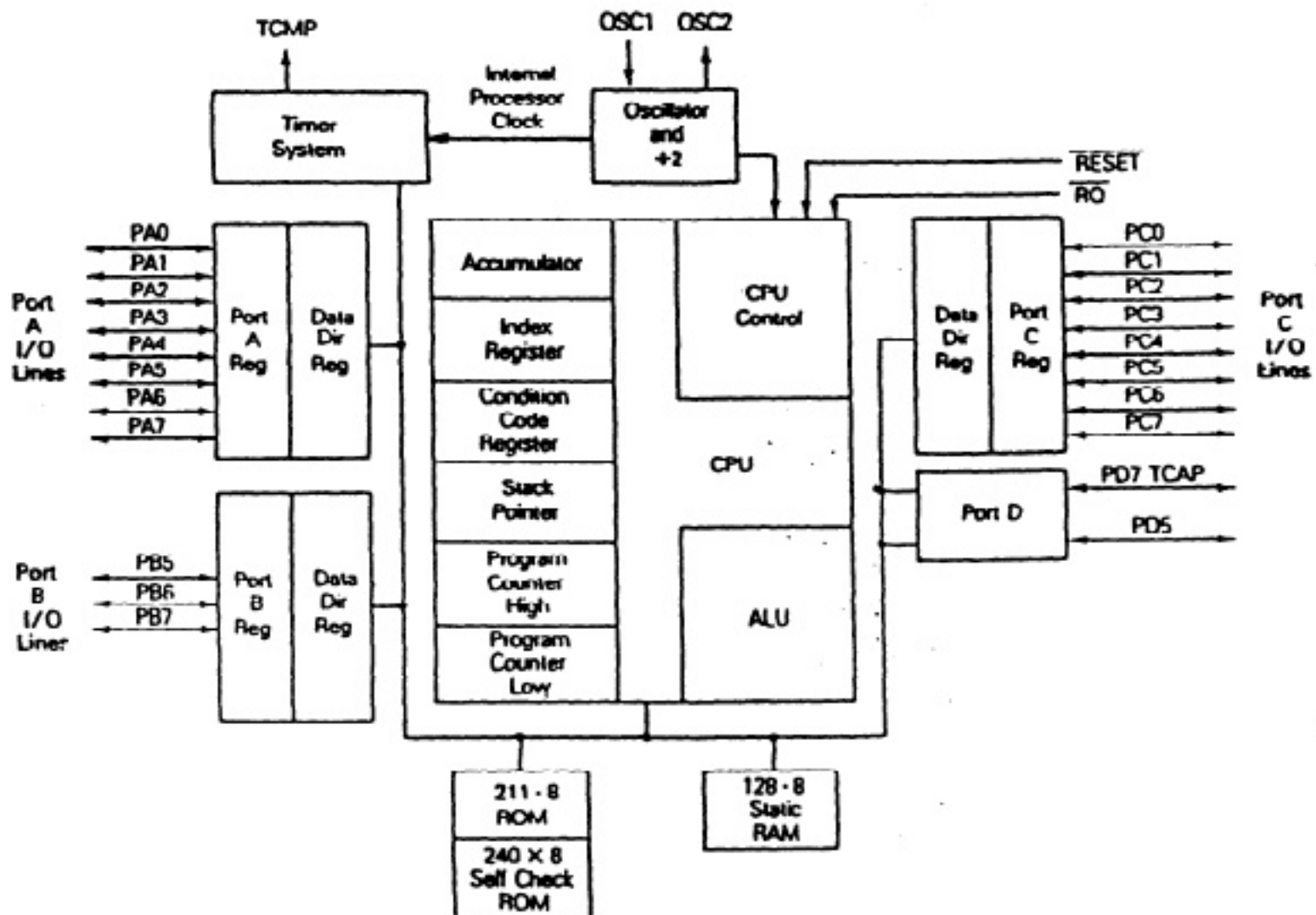
- Nominal specs represent the design specs. All units should be able to approximate these some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable: in no case should a unit fail to meet limit specs.
- This manual is based on the European (D) standard, and provides information on regional circuit modification through the use of alternate schematic diagram or wiring diagram, and information on regional component variations through the use of parts lists. Design and specifications subject to change without notice.

CIRCUIT DESCRIPTION

Pin assignment

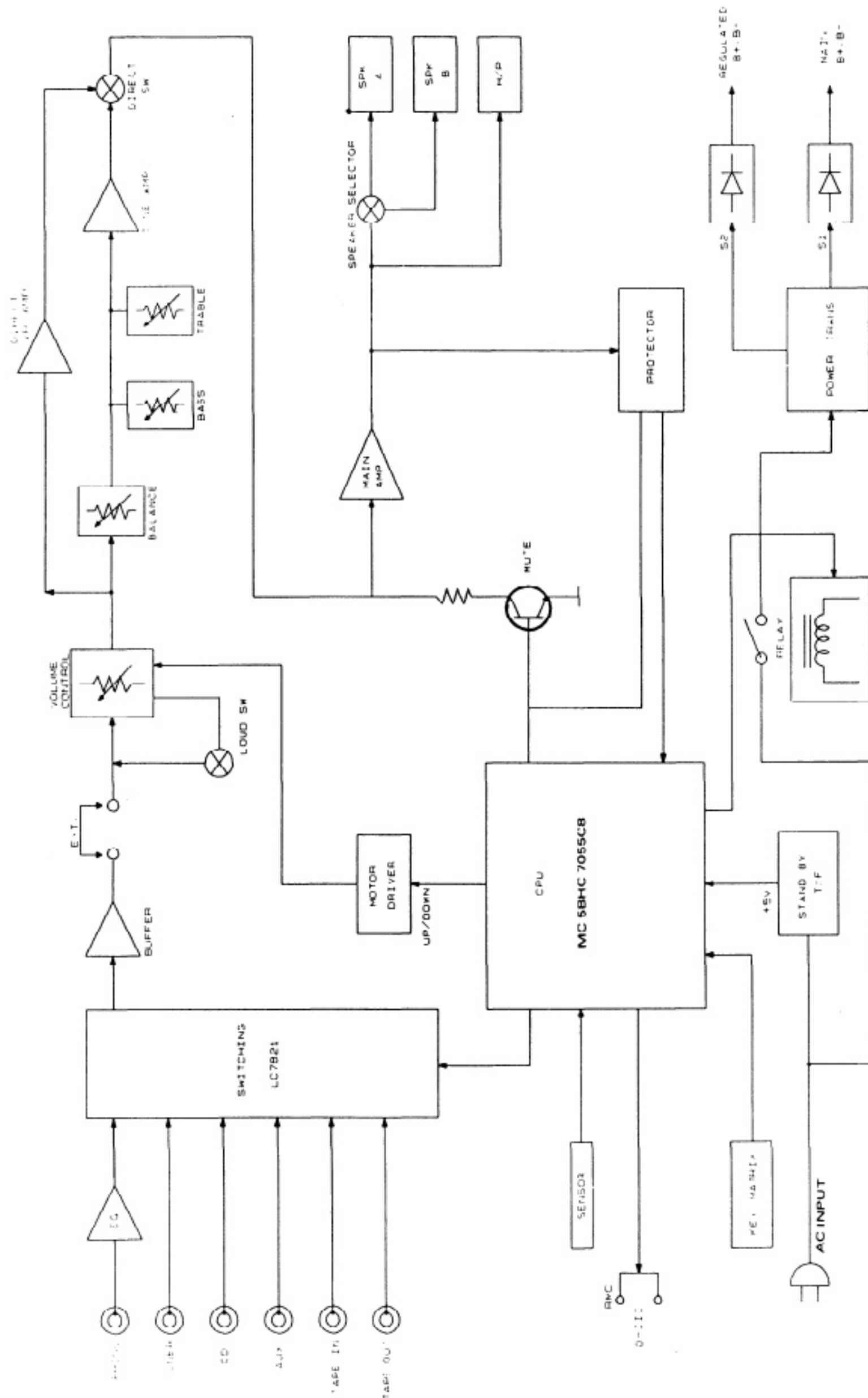


Block Diagram



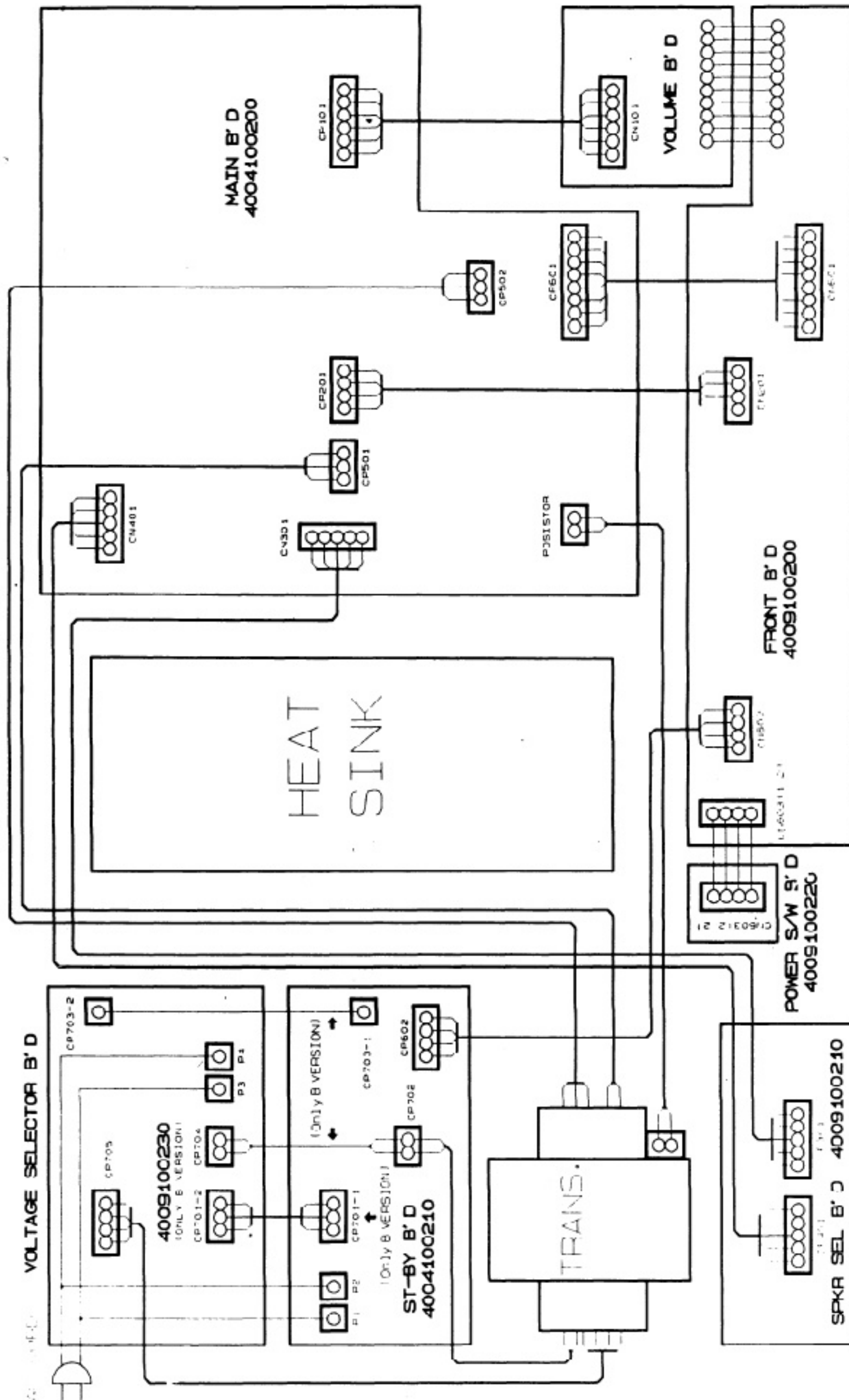
BLOCK DIAGRAM

Model No. : AX-4050R



WIRING DIAGRAM

Model No. : AX-4050R

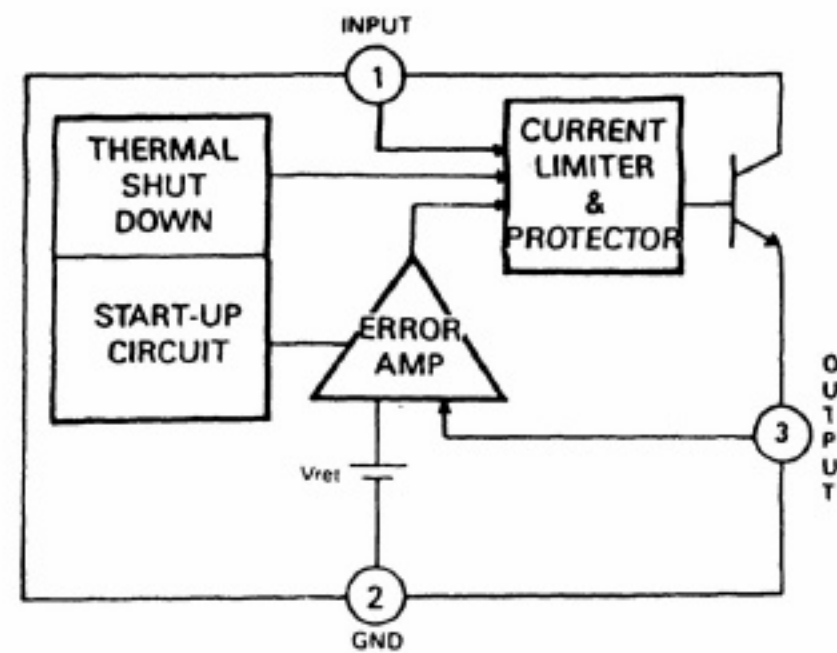
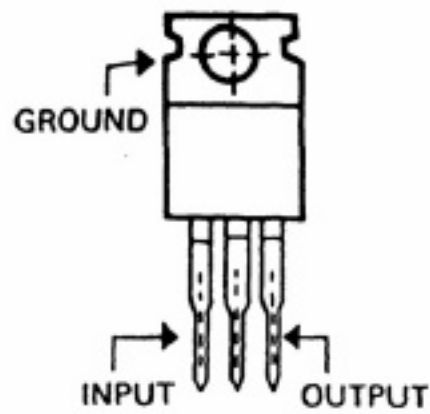


TROUBLESHOOTING

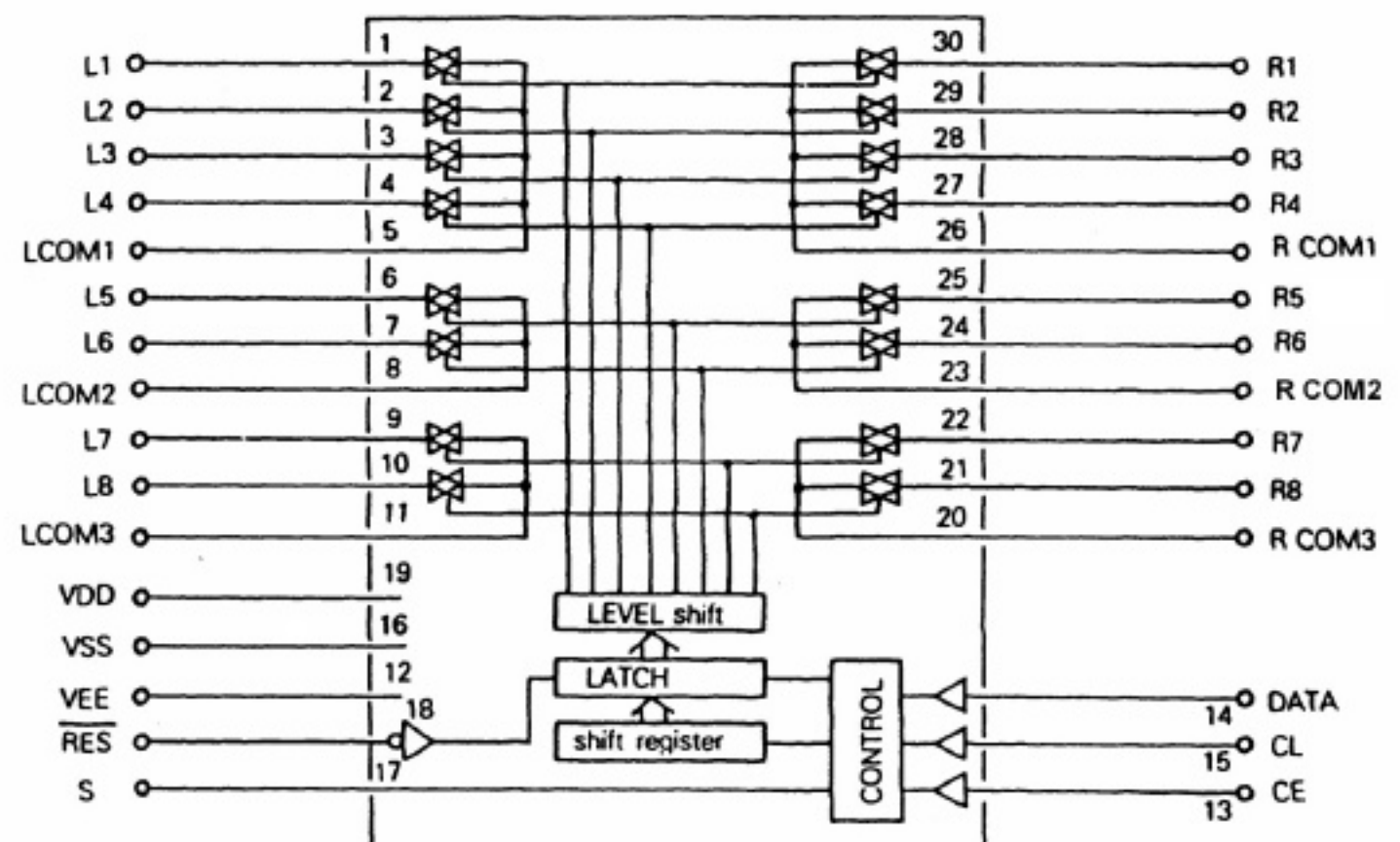
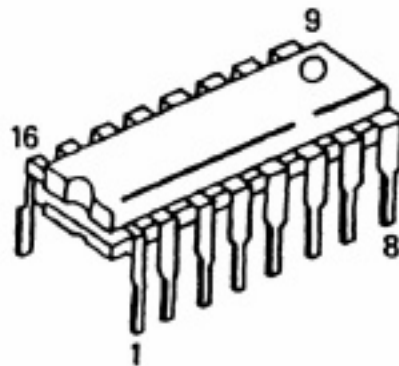
Symptom	Cause and Remedy
Amplifier inoperative.	● Faulty AC power cord. Replace. ● Defect in the power switch. Replace. ● Broken wire in the power transformer. Replace the power transformer. ● Blown fuse. Replace the fuse.
Fuse blows when power is turned on.	● Defective power transformer. Replace. ● Short in the primary or secondary of the transformer circuitry. Replace. ● Damaged rectifying diodes D601~D604. Replace the defective diode(s). ● Short in the rectifying circuit. Repair the short.
No sound from both channels or one channel	● Speaker switch A or B defective. Replace the defective switch(es). ● Defective in transistor Q311L/R, Q312L/R on the main board. Replace the defective transistor(s).
Headphones inoperative.	● Defective resistor R401L/R. Replace.
All the inputs inoperative.	● Defective IC IC102, IC103, IC201, IC202. Replace the defective IC(s).
All the inputs work normally except phono.	● Defective IC101. Replace.
Loudness has no effect.	● Defective loudness switch. Replace. ● Defective R201L/R, R202L/R, C201L/R, C202L/R. Replace
Bass control has no effect.	● Variable resistor VR204 defective. Replace. ● Defective R212L/R, R213L/R, C212L/R, C213L/R. Replace.
Treble control has no effect.	● Variable resistor VR203 defective. Replace. ● Defective R214L/R, R215L/R, C214L/R. Replace.

IC'S LEAD IDENTIFICATIONS & INTERNAL DIAGRAM

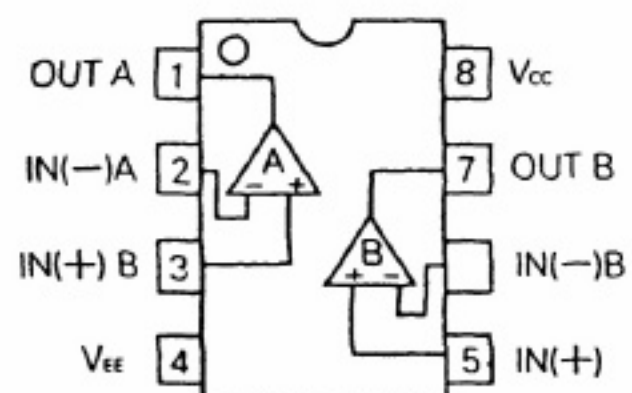
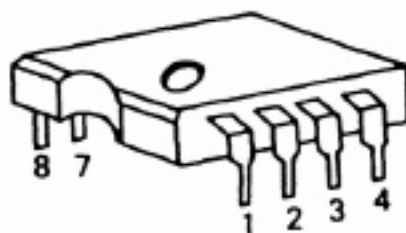
GD78XX : IC601, IC801



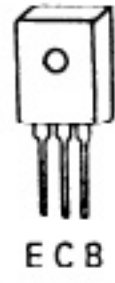
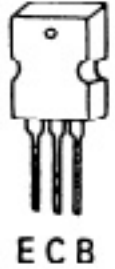
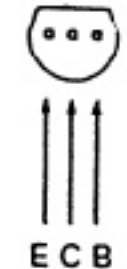
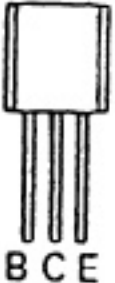
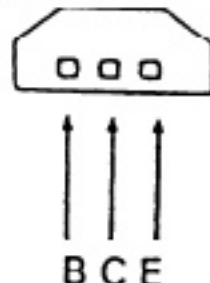
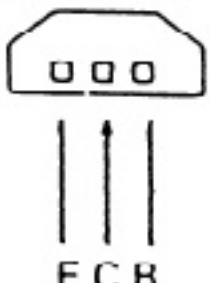
LC7821 : IC102



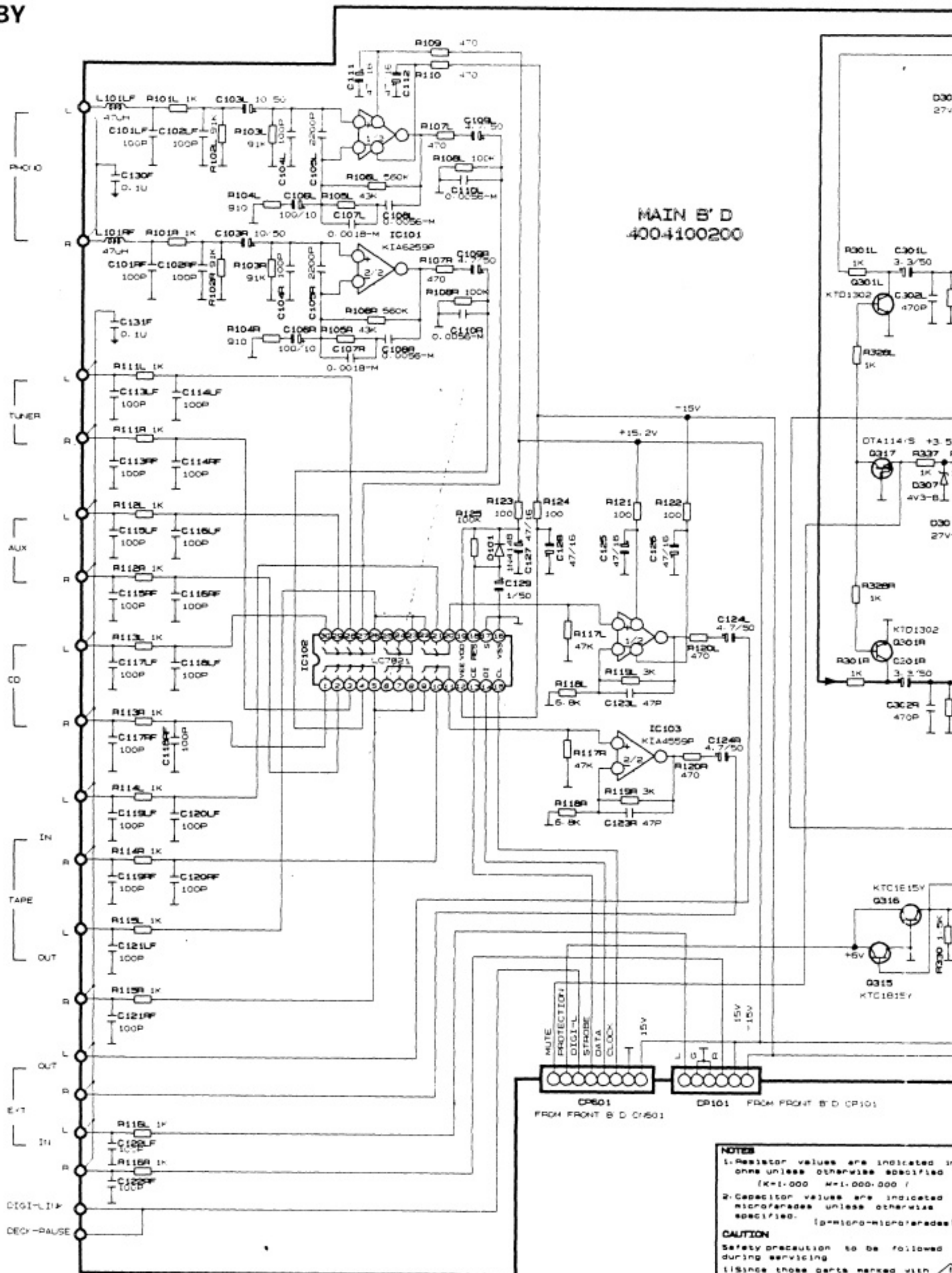
KIA7559P/KIA4559P
KIA6259P : IC101, IC103 IC201, IC201



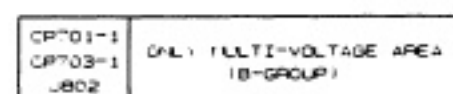
TRANSISTORS LEAD IDENTIFICATION

TRANSISTORS	FRONT VIEW	BOTTOM VIEW
KTB688/2SB688 KTD718/2SD718		
KSC2690 KSA1220		
2SC4137		
KTA1015/KTA1266 KTC1815/KTC3198 KTC2240/KTC3200 KTD1302		
KTC114YS KTA114YS		
KTA949/KTA1024 KTC2229/KTC3206		
MPSA06 MPSA56		
	TERMINAL NAME	
	B→BASE C→COLLECTOR E→EMITTER	

MAIN/ST-BY



Model

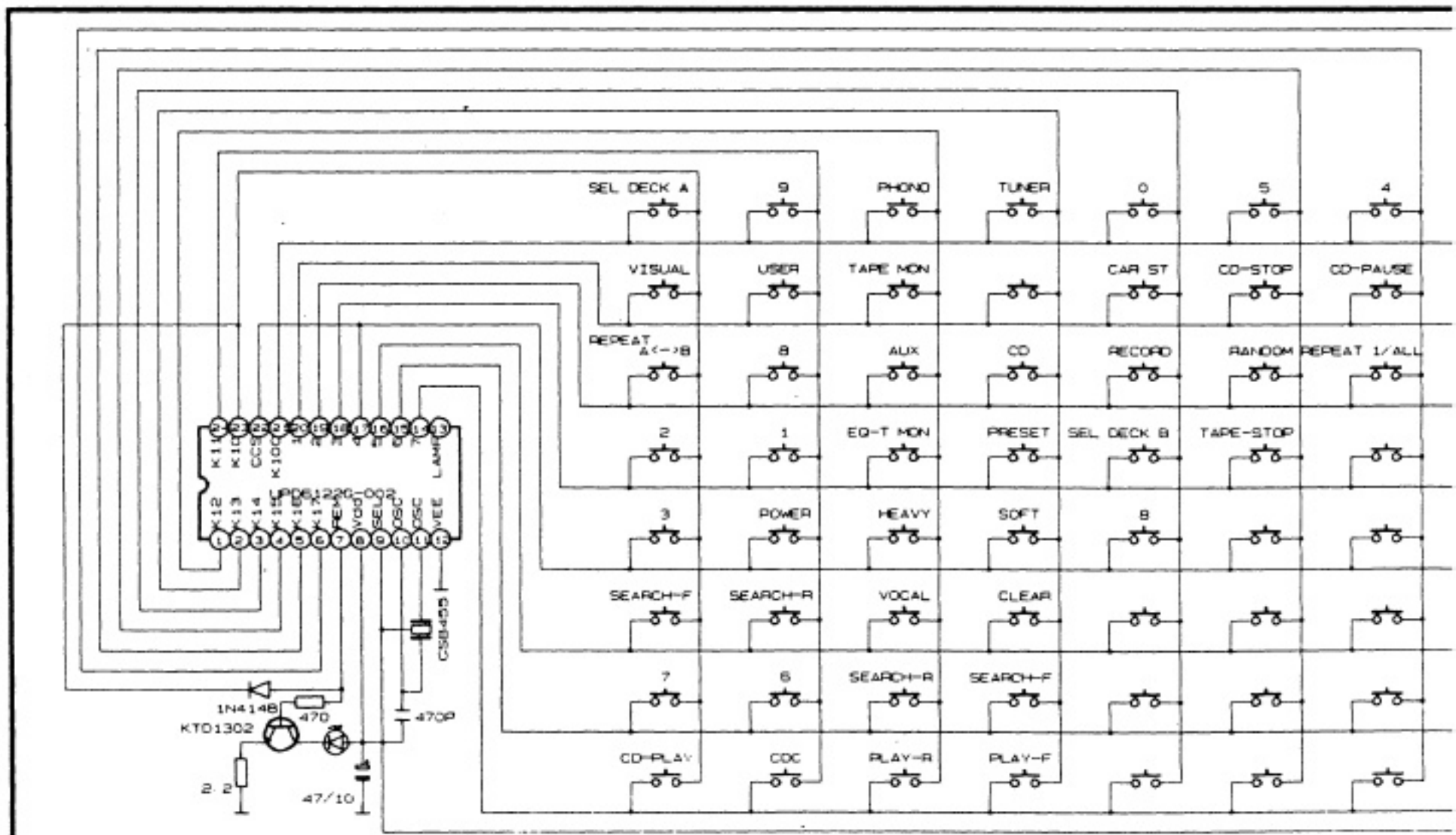
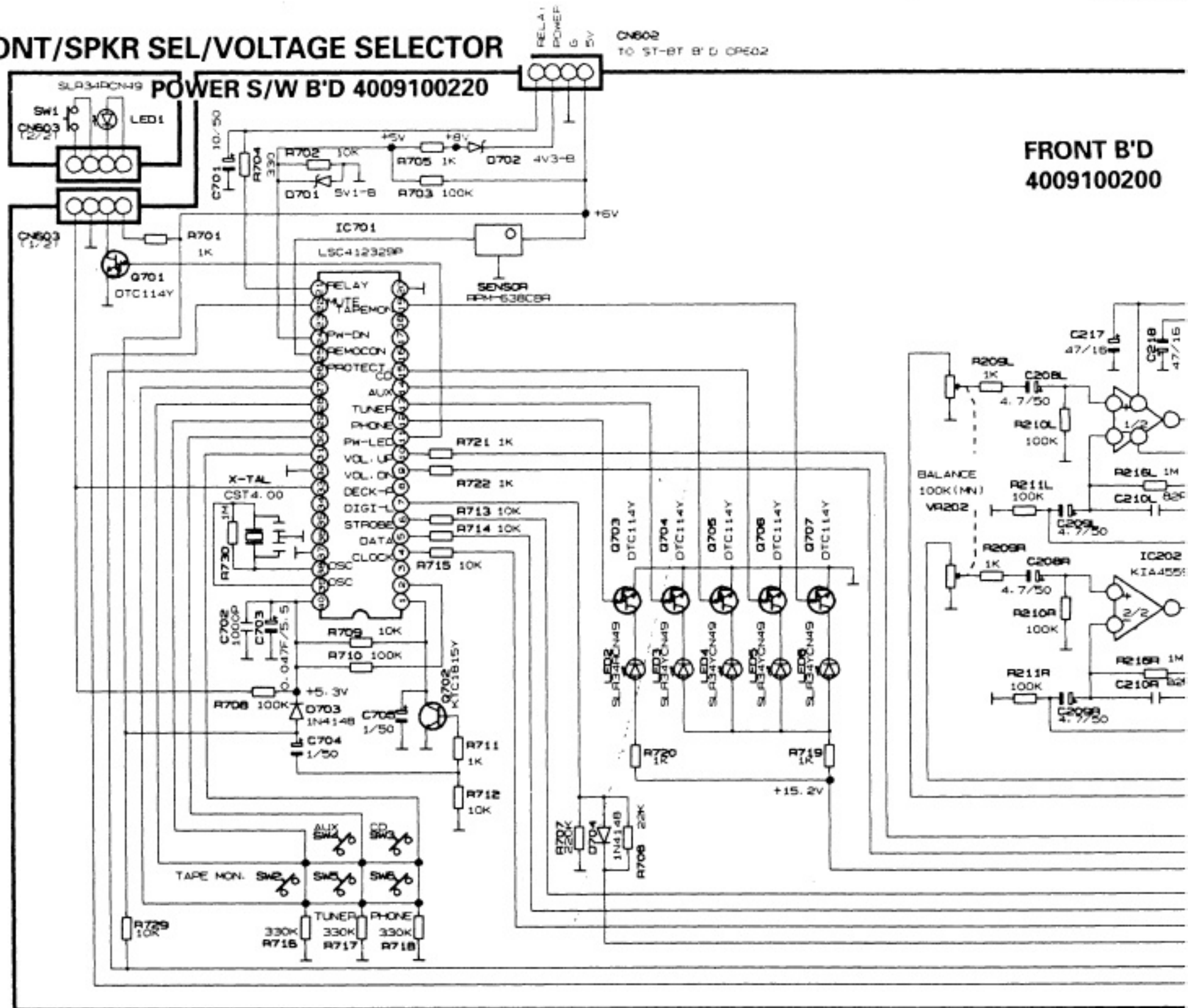


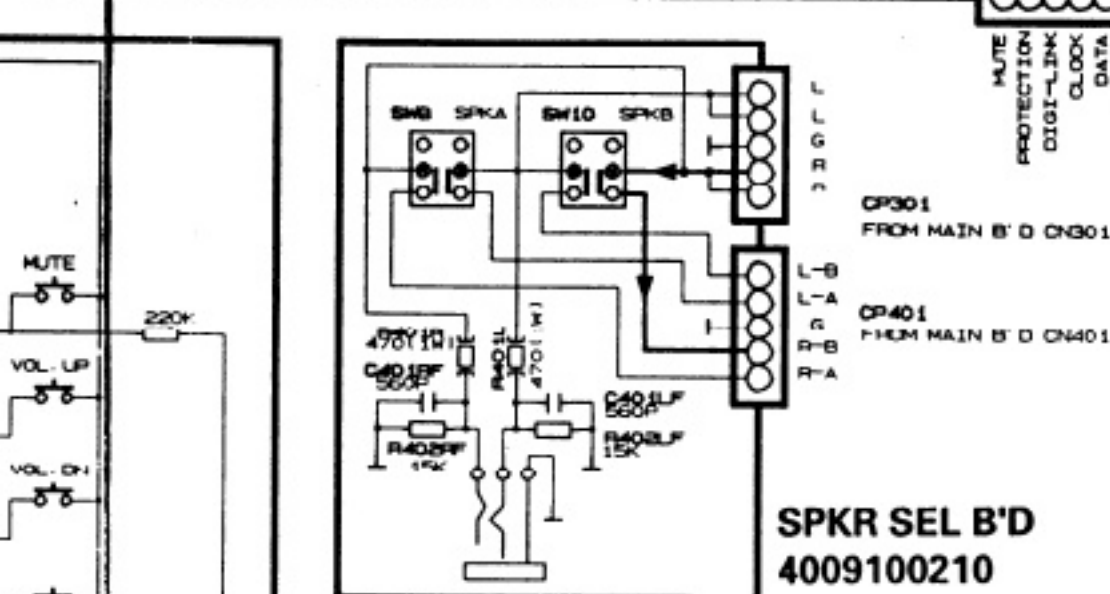
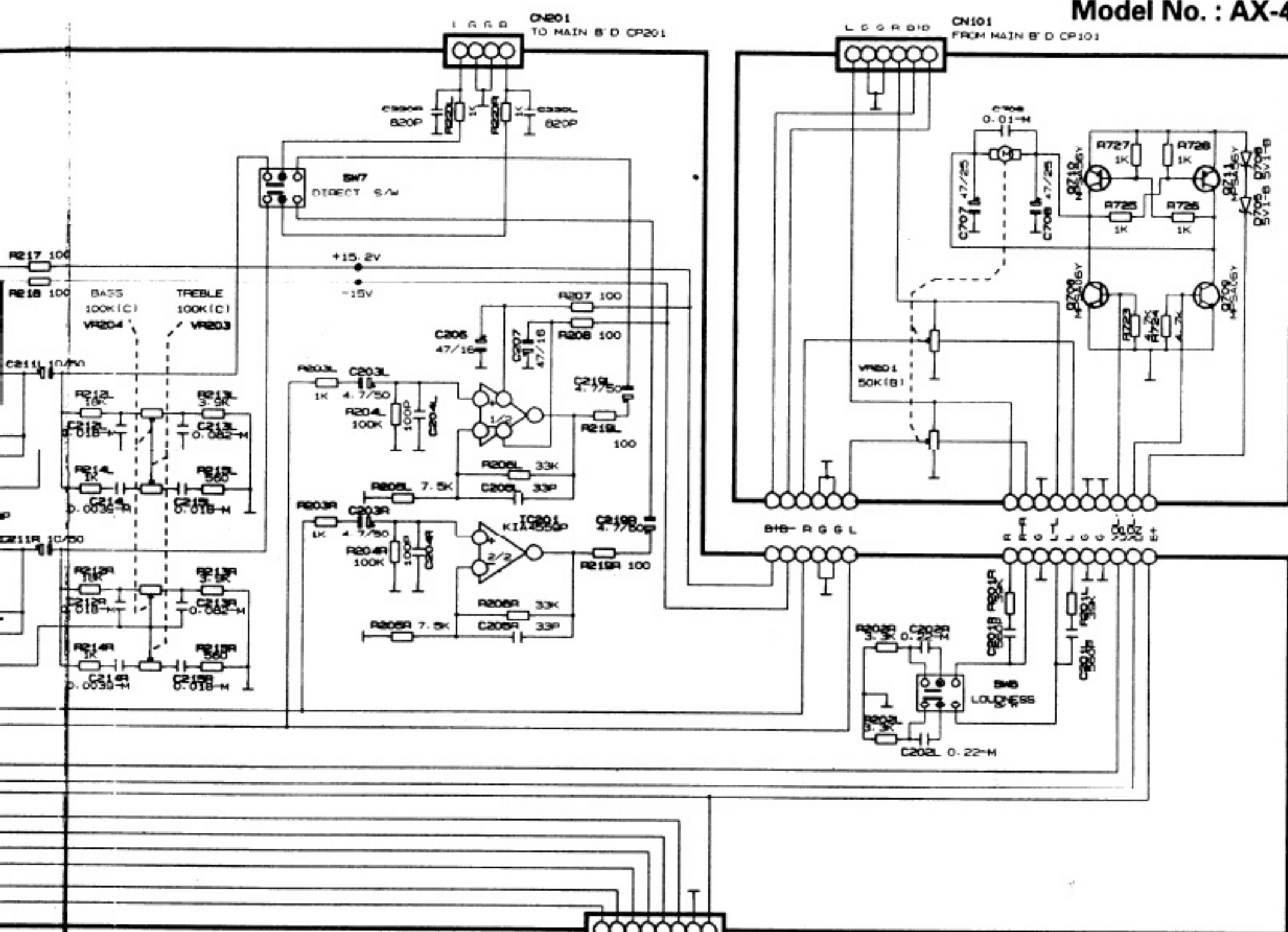
	KOREA	OTHER COUNTRY	8-GROUP
F701	TL150mA/250V	TL150mA/250V	TL150mA/250V
F702	X	TL2 5A/250V	X
F703	TL2 5A/250V	TL2 5A/250V	X

→ Signal Line

ies are indicated in
otherwise specified
M=1,000,000 l
ues are indicated in
unless otherwise
p=1000=1000/1000=1
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parts for safety.
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appropriate leakage
istance measurements
the exposed parts
insulated from the

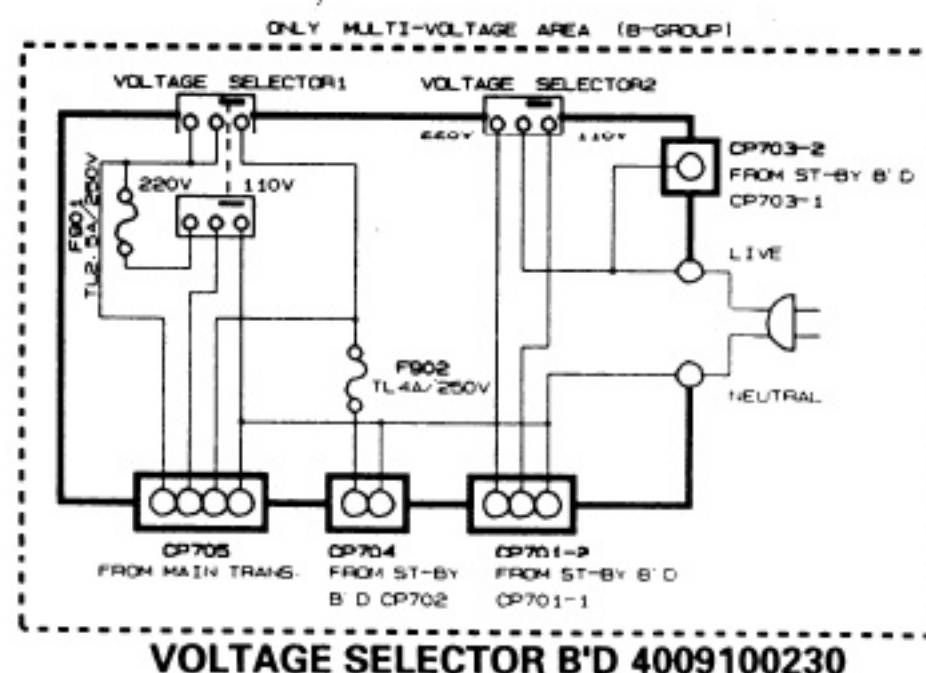
FRONT/SPKR SEL/VOLTAGE SELECTOR





SPKR SEL B'D
4009100210

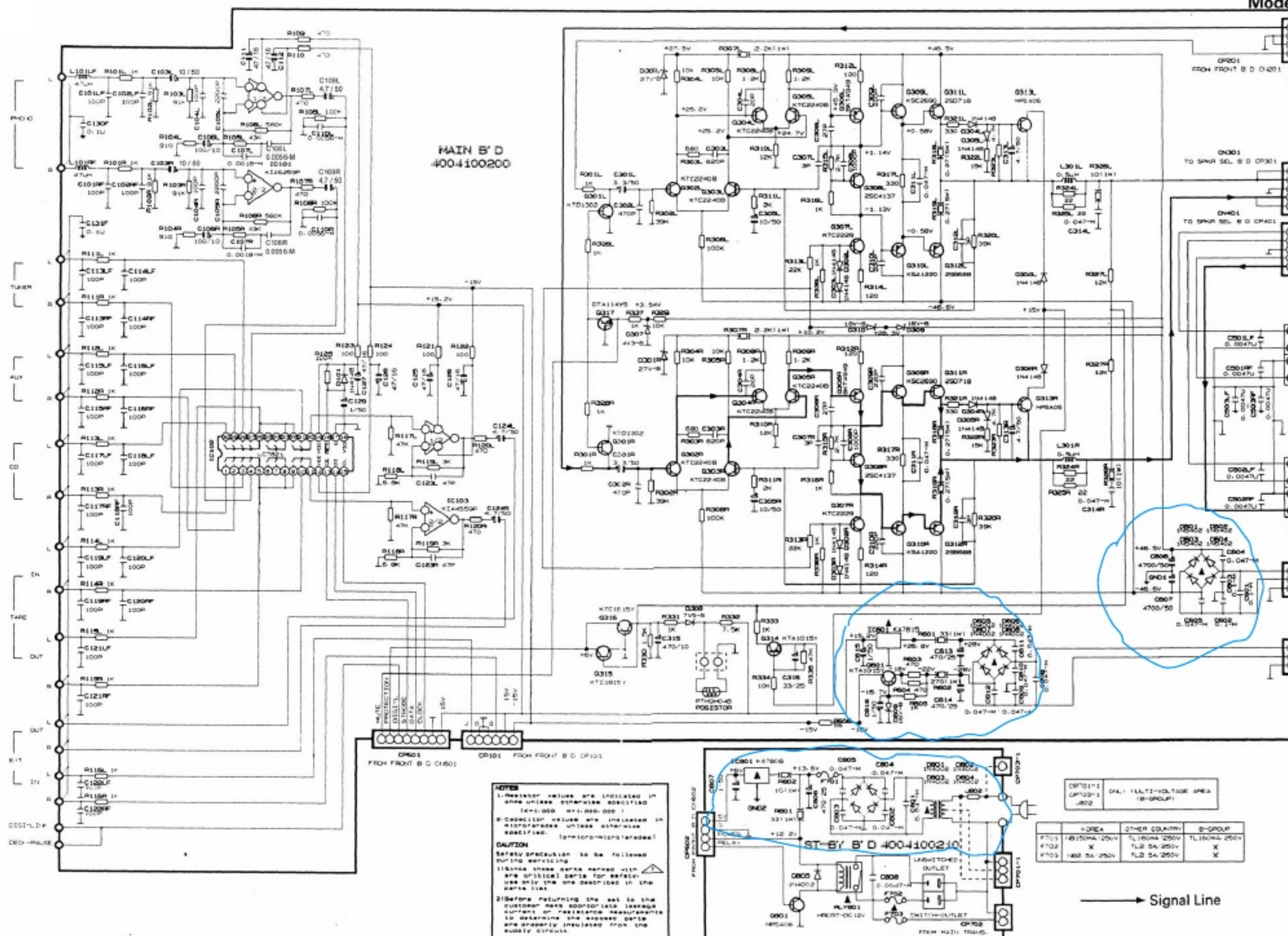
- NOTES**
1. Resistor values are indicated in ohms unless otherwise specified
(K=1,000 M=1,000,000)
 2. Capacitor values are indicated in microfarads unless otherwise specified.
(p=micro-microfarads)
- CAUTION**
- Safety precaution to be followed during servicing
- 1) Since those parts marked with  are critical parts for safety-use only the one described in the parts list
 - 2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.



VOLTAGE SELECTOR B'D 4009100230

Signal Line

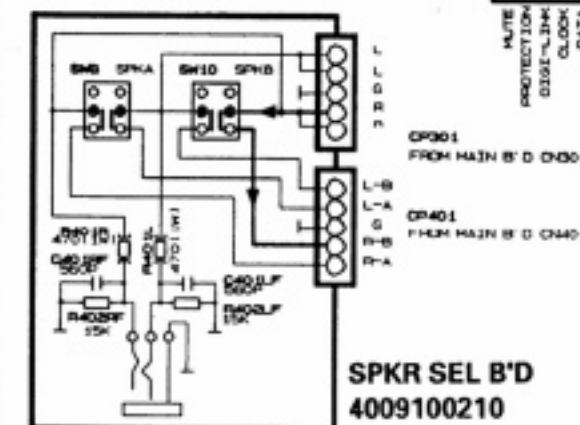
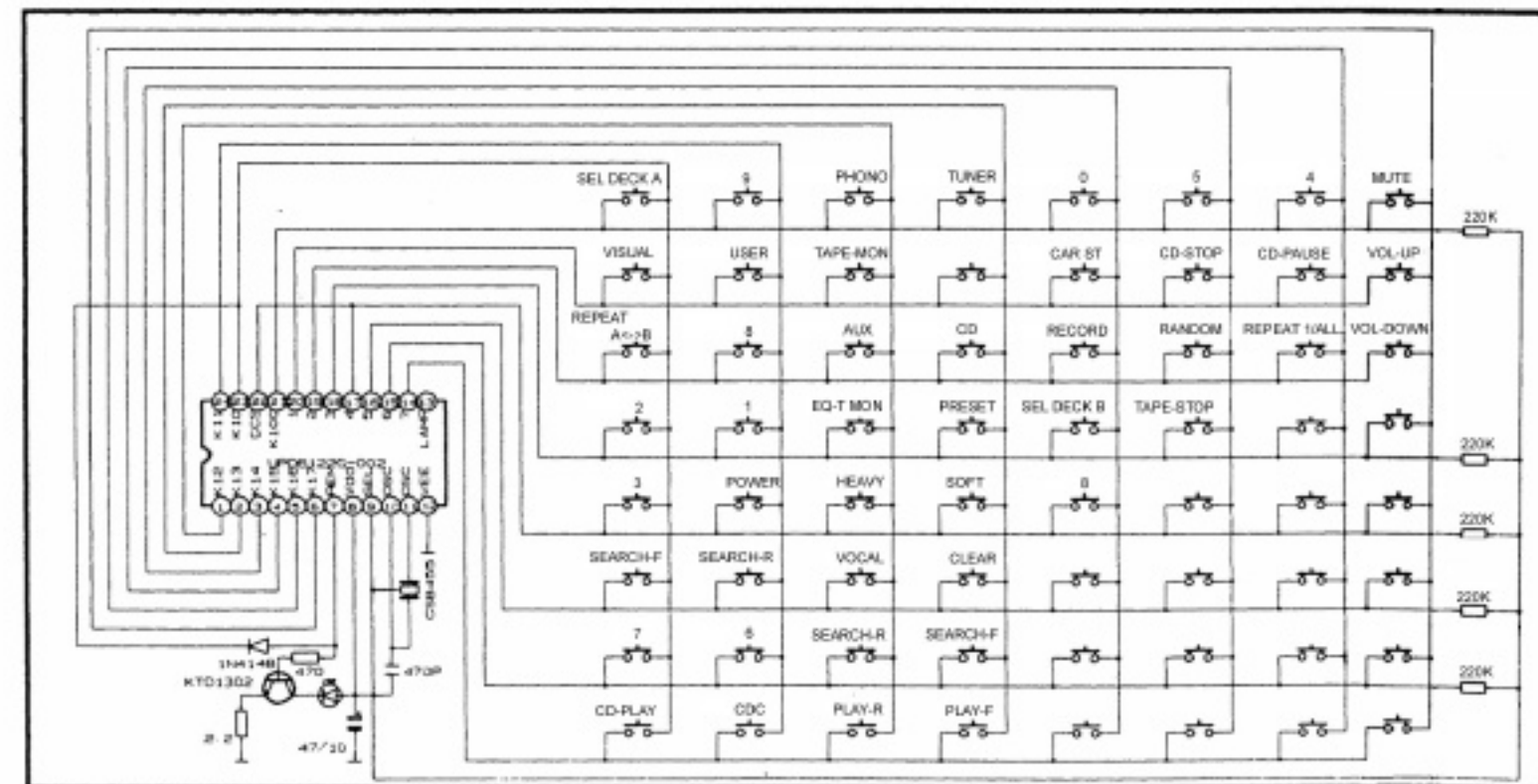
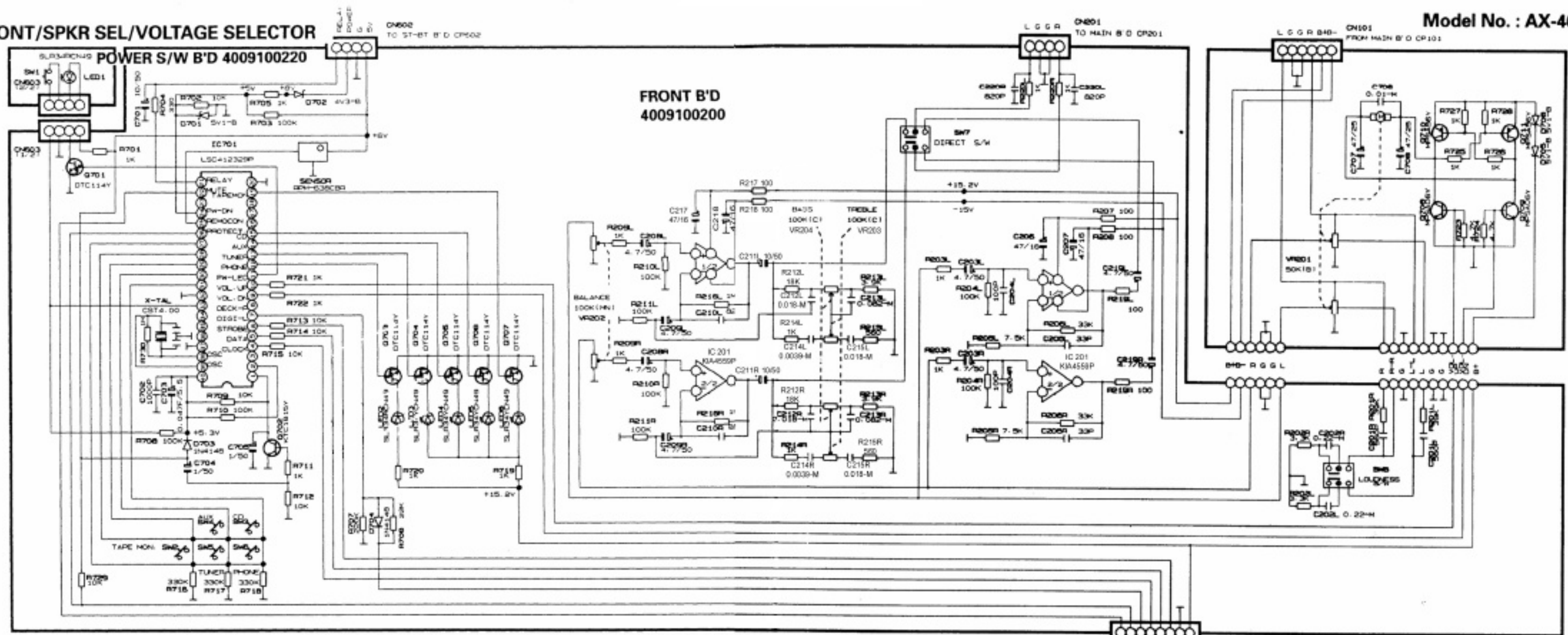
SCHEMATIC DIAGRAM I



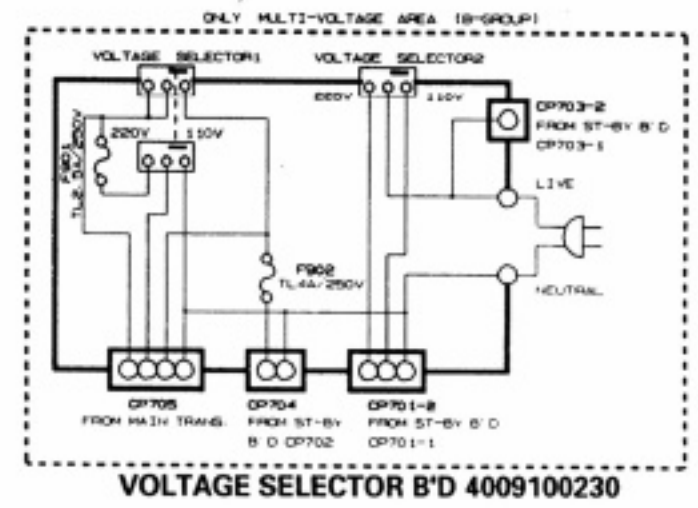
SCHEMATIC DIAGRAM II

Model No. : AX-4050R

FRONT/SPKR SEL/VOLTAGE SELECTOR



NOTES
 1. Resistor values are indicated in Ohms unless otherwise specified (K=1,000 M=1,000,000)
 2. Capacitor values are indicated in microfarads unless otherwise specified (p=picofarads)
CAUTION
 Safety Precaution to be followed during servicing:
 1. Since those parts marked with a triangle are critical parts for safety, use only the one described in the parts list.
 2. Before returning the set to the customer, make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuits.



VOLTAGE SELECTOR B'D 4009100230

Signal Line