

# DENON

Hi-Fi AV Surround Receiver

Multi-Voltage  
Model

## SERVICE MANUAL

# MODEL AVR-2000/2000G

## AV SURROUND RECEIVER

Note: This service manual is to be applied for Multi-Voltage models.  
Other items except those described in this manual are same in contents in AVR-2000/2000G (Service manual No. 0327... described on the right bottom side of the back page.) as well.  
For servicing, refer at the same time to the service manual of AVR-2000/2000G already issued.

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**NIPPON COLUMBIA CO., LTD.**

**NOTE FOR PARTS LIST**

- Part indicated with the mark "◎" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

**WARNING:**

Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

● **Resistors**

Ex.: RN 14K 2E 182 G FR

Type	Shape and performance	Power	Resistance	Allowable error	Others
RD : Carbon	2B : 1/8W	F : ±1%	P : Pulse-resistant type		
RC : Composition	2E : 1/4W	G : ±2%	NL : Low noise type		
RS : Metal oxide film	2H : 1/2W	J : ±5%	NB : Non-burning type		
RW : Winding	3A : 1W	K : ±10%	FR : Fuse-resistor		
RN : Metal film	3D : 2W	M : ±20%	F : Lead wire forming		
RK : Metal mixture	3F : 3W				
	3H : 5W				

\* **Resistance**

- 1 8 2 ⇒ 1800 ohm = 1.8 kohm  
 Indicates number of zeros after effective number.  
 2-digit effective number.  
 • Units: ohm
- 1 R 2 ⇒ 1.2 ohm  
 1-digit effective number.  
 2-digit effective number, decimal point indicated by R.  
 • Units: ohm

\* **Capacity (electrolyte only)**

- 2 2 2 ⇒ 2200µF  
 Indicates number of zeros after effective number.  
 2-digit effective number.  
 • Units: µF.
- 2 R 2 ⇒ 2.2µF  
 1-digit effective number.  
 2-digit effective number, decimal point indicated by R.  
 • Units: µF.

● **Capacitors**

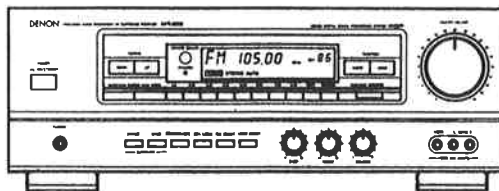
Ex.: CE 04W 1H 2R2 M BP

Type	Shape and performance	Dielectric strength	Capacity	Allowable error	Others
CE : Aluminum foil electrolytic		0J : 6.3V	F : ±1%	HS : High stability type	
CA : Aluminum solid electrolytic		1A : 10V	G : ±2%	BP : Non-polar type	
CS : Tantalum electrolytic		1C : 16V	J : ±5%	HR : Ripple-resistant type	
CQ : Film		1E : 25V	K : ±10%	DL : For charge and discharge	
CK : Ceramic		1V : 35V	M : ±20%	HF : For assuring high frequency	
CC : Ceramic		1H : 50V	Z : +80%	U : UL part	
CP : Oil		2A : 100V	-20%	C : CSA part	
CM : Mica		2B : 125V	P : +100%	W : UL-CSA type	
CF : Metallized		2C : 160V	-0%	F : Lead wire forming	
CH : Metallized		2D : 200V	C : ±0.25pF		
		2E : 250V	D : ±0.5pF		
		2H : 500V	= : Others		
		2J : 630V			

\* **Capacity (except electrolyte)**

- 2 2 2 ⇒ 2200µF = 0.0022µF  
 (More than 2) Indicates number of zeros after effective number.  
 2-digit effective number.  
 • Units: µF.
- 2 2 1 ⇒ 220PF  
 (0 or 1) Indicates number of zeros after effective number.  
 2-digit effective number.  
 • Units: PF.  
 • When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

● **CAUTION (FOR THOSE PURCHASING A SET WITH A SIDE CABINET)**



Be sure to consult your store of purchase if you want to remove the side cabinet. Using the screws for the side cabinet as such to fasten the top cover in place could cause to electric shock or damage to the set, depending on how they are fastened and their positions.

**1U-2541C POWER INPUT UNIT (Same as 1U-2541 for U.S.A. model except the following)**

Ref. No.	Part No.	Part Name	Remarks
<b>SEMICONDUCTORS GROUP</b>			
D510	276 0553 905	Diode 1SR-200A	Delete
D511	276 0553 905	Diode 1SR-200A	Delete
ZD502	276 0475 902	Zener Diode HZS12C-1	Change
<b>RESISTOR GROUP</b>			
△ JV102	244 2052 928	Metal Oxided 47ohm, 1W	Add
<b>OTHER GROUP</b>			
△ F003	206 1046 027	Fuse 5A	Delete
△ F004	206 1046 027	Fuse 5A	Delete
△ F001	206 1061 060	Fuse 8A (250V)	Change
△ F	206 1061 031	Fuse 4A (250V)	Add
	233 6041 003	Power Trans (Mini)	Change
	202 0022 008	Fuse Holder (4)	
	513 2049 015	Fuse Label	Add
	513 2049 028	Fuse Label	Add

**1U-2542B VIDEO UNIT (Same as 1U-2542 for U.S.A. model except the following)**

Ref. No.	Part No.	Part Name	Remarks
<b>SEMICONDUCTORS GROUP</b>			
IC905	268 0074 904	ICP-N20 (IC Protector)	Change
<b>OTHER GROUP</b>			
	513 2122 000	IC Label	Add
	205 0233 032	3P EH Conn-Base	Add
	205 0185 038	3P Wire Holder	Add

**1U-2543B SURROUND UNIT (Same as 1U-2543 for U.S.A. model except the following)**

Ref. No.	Part No.	Part Name	Remarks
<b>SEMICONDUCTORS GROUP</b>			
D757	276 0432 903	Diode 1SS270A	Add
<b>OTHER GROUP</b>			
	212 4293 005	Slide Switch	Add
	205 0343 032	3P Conn. Base (KR-PH)	Add
	205 0452 004	Style Pin	Add

**1U-2507D TUNER UNIT (Same as 1U-2507C for U.S.A. model except the following)**

Ref. No.	Part No.	Part Name	Remarks
<b>RESISTORS GROUP</b>			
R24	247 0011 902	Chip Carbon 33kohm, 1/10W	Add
R34	247 0010 945	Chip Carbon 18kohm, 1/10W	Change
<b>CAPACITORS GROUP</b>			
C37	257 0006 930	Chip Ceramic 510pF/50V	Change
C38	257 0006 930	Chip Ceramic 510pF/50V	Change
<b>OTHER GROUP</b>			
	445 0048 003	Cord Holder (L=76)	Change





1 2 3 4 5 6 7 8

1U-2542 VIDEO UNIT ASS'Y

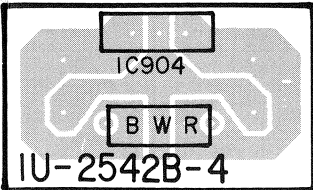
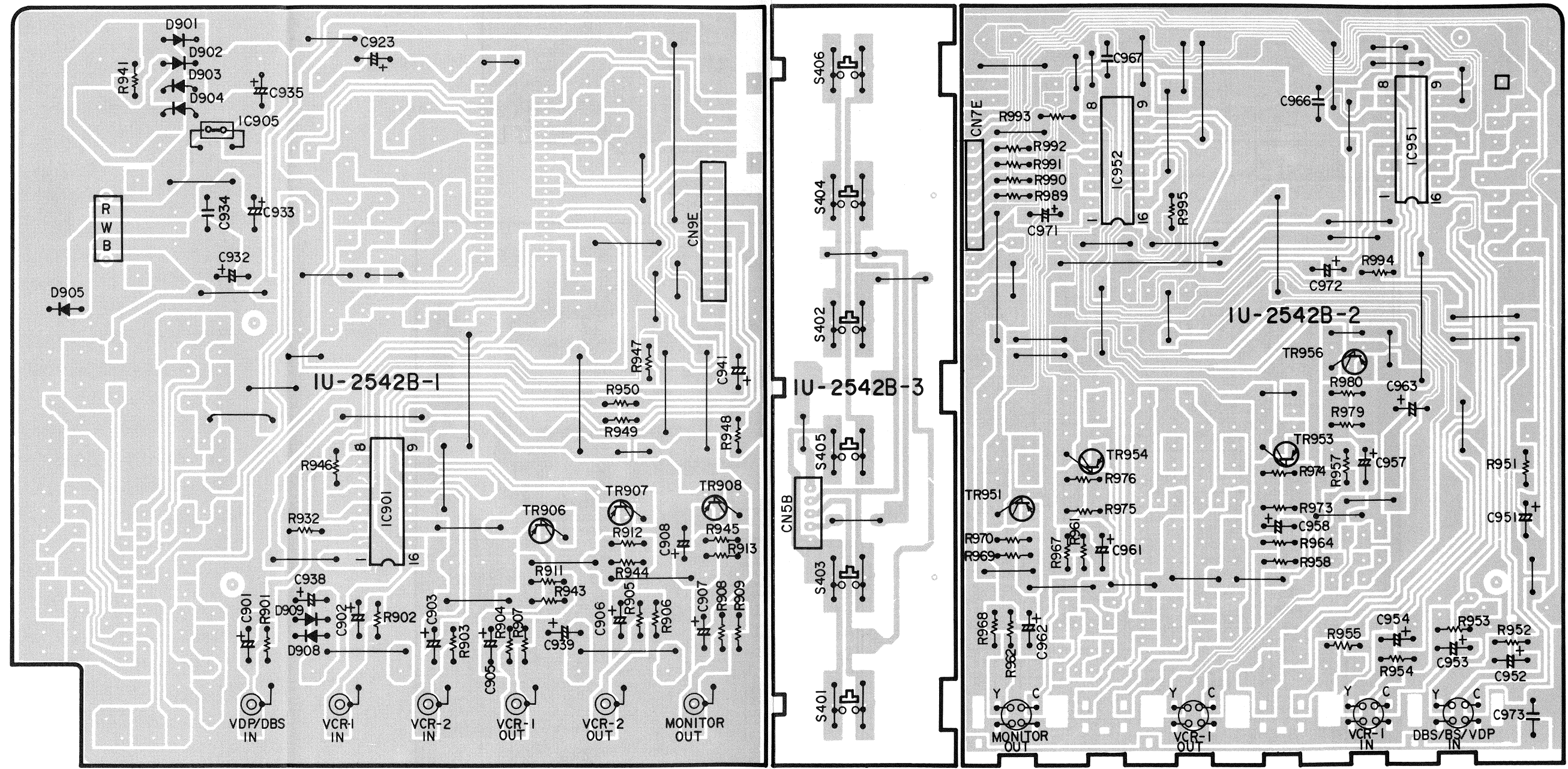
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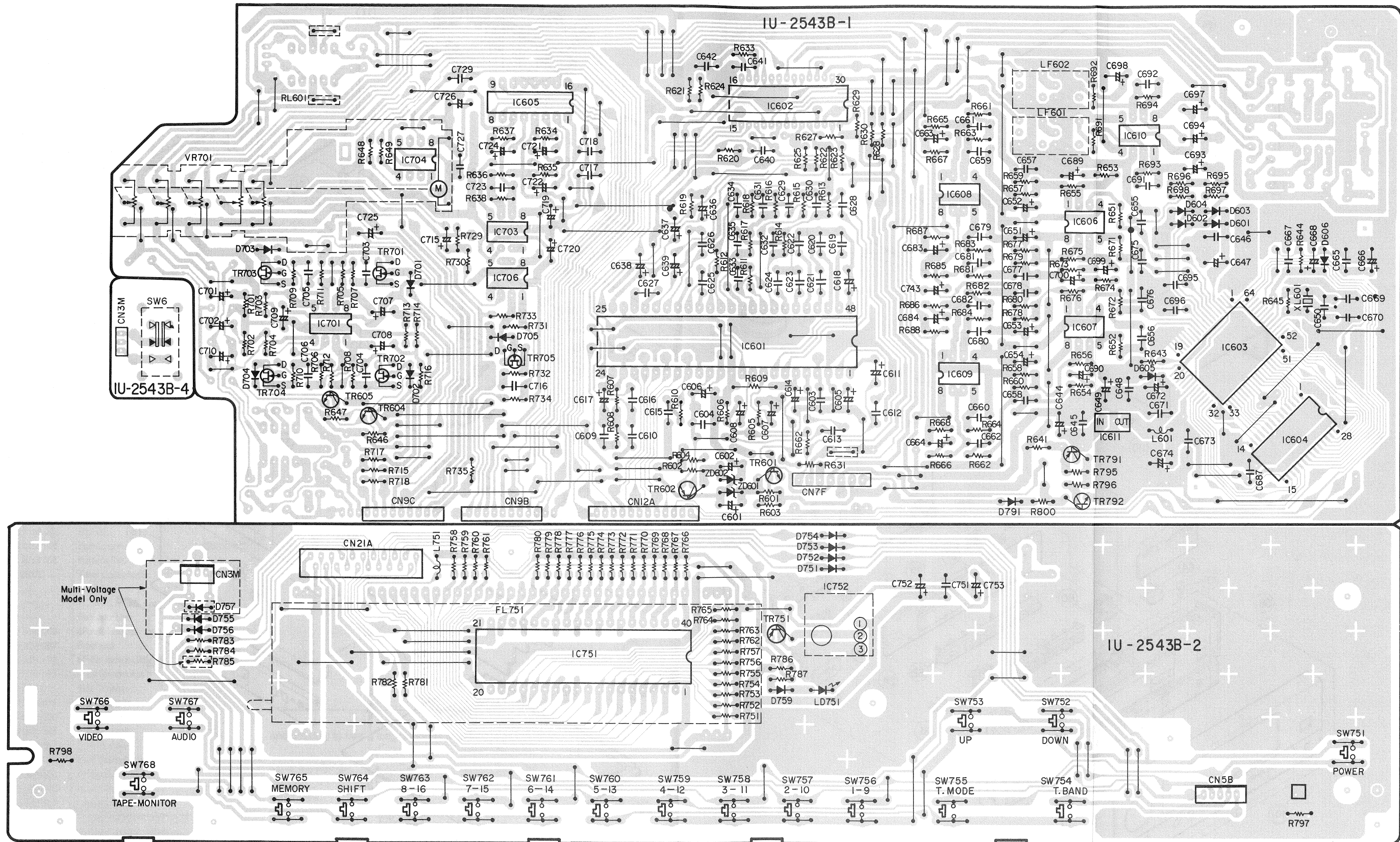
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TO POWER SUPPLY

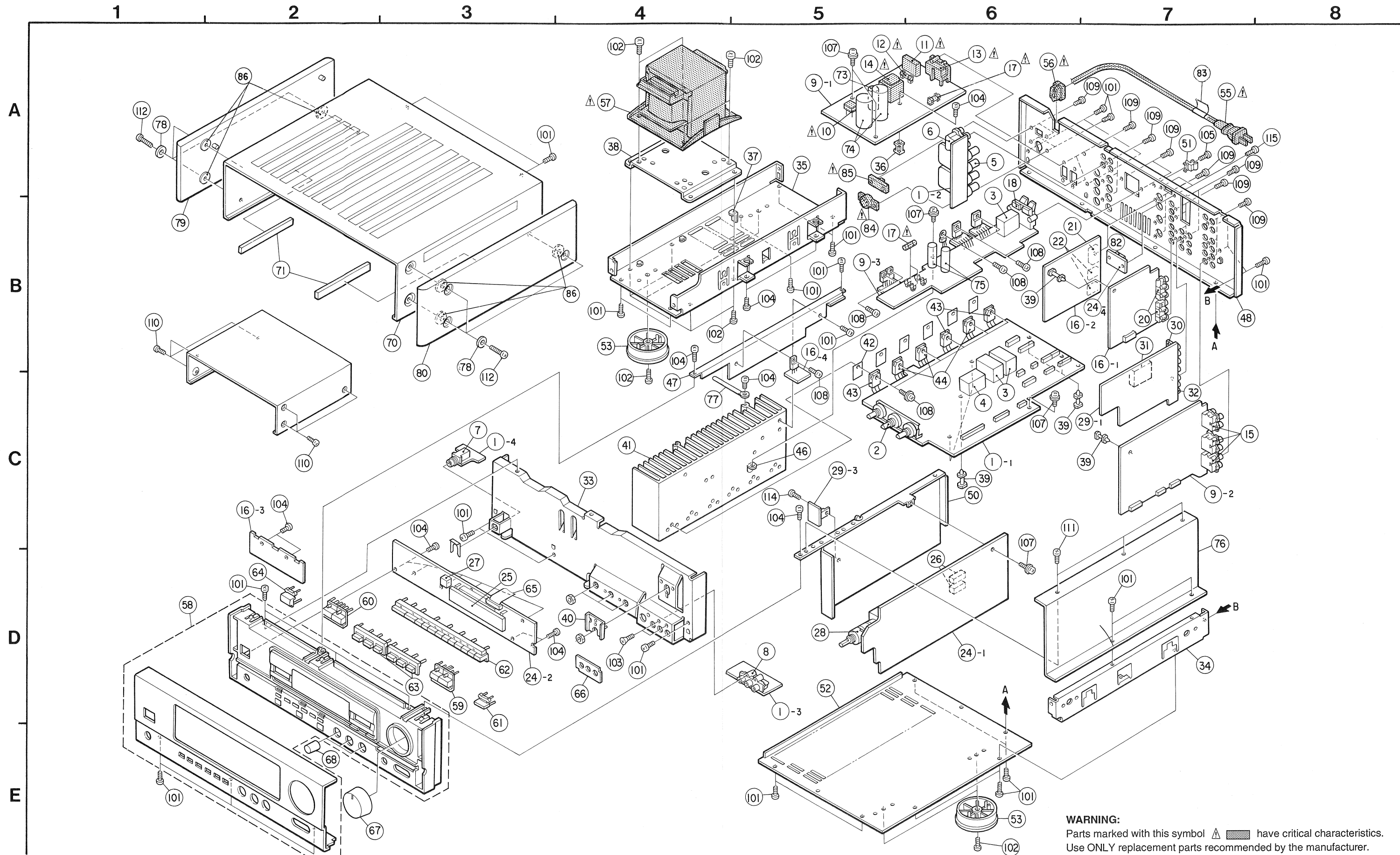
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1U-2543B SURROUND UNIT ASS'Y



A  
B  
C  
D  
E

EXPLODED VIEW OF CHASSIS AND CABINET



**WARNING:**  
Parts marked with this symbol  have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.



PARTS LIST OF EXPLODED VIEW


Ref.No.	Part No.	Part Name	Remarks	Q'ty	Ref.No.	Part No.	Part Name	Remarks	Q'ty
1	1U-2540	Main Amp Unit Ass'y		1 <sup>S</sup>	45	—	—		
1-1	—	Main Amp Unit		(1)	46	412 3427 003	L Bracket		1
1-2	—	SP Pre out Unit		(1)	47	412 3315 306	Radiator Bracket(A)		1
1-3	—	V-Aux Unit		(1)	48	105 1074 356	Rear Panel	Black Model	1
1-4	—	Headphone Unit		(1)	48	105 1074 369	Rear Panel	Gold Model	1
2	211 0760 005	Variable Resistor		1	49	—	—		
3	214 9003 005	Relay		3	50	411 1177 200	Shield Chassis		1
4	214 0162 000	Relay(A12W-K)		1	51	146 0925 009	Ant. Holder		1
5	205 0472 039	8P SP Terminal		1	52	105 0965 107	Bottom Cover		1
6	204 8266 008	4P Pin Jack(S-GND)		1	53	104 0194 108	Foot Ass'y		4
7	204 8341 004	Headphone Jack		1	54	—	—		
8	204 8342 003	3P Pin Jack(C-GND)		1	55	206 2083 005	AC Cord		1
9	1U-2541C	Power Input Unit Ass'y		1 <sup>S</sup>	56	445 0071 009	Cord Bush		1
9-1	—	Power Supply Unit		(1)	57	233 6042 002	PowerTrans		1
9-2	—	Audio Input Unit		(1)	58	144 2268 551	Front Panel Ass'y	Black Model	1
9-3	—	Rear Amp Unit		(1)	58	144 2268 564	Front Panel Ass'y	Gold Model	1
10	276 0356 005	Diode D5FB20(4001)		1	59	113 1535 029	Function Knob(B)	Black Model	1
11	214 0120 000	Relay(TV-8)		1	59	113 1535 045	Function Knob(B)	Gold Model	1
12	206 1061 060	Fuse 8A (250V)	F001	1	60	113 1535 032	Function Knob(B)	Black Model	1
13	203 3941 008	AC Outlet(2P)		1	60	113 1535 074	Function Knob(B)	Gold Model	1
14	233 6041 003	Power Trans(Mini)		1	61	113 1465 021	Push Knob(P)	Black Model	1
15	204 8313 003	4P Pin Jack(S-GND)		3	61	113 1465 034	Push Knob(P)	Gold Model	1
16	1U-2542B	Video Unit Ass'y		1 <sup>S</sup>	62	113 1566 124	Pre-set Knob	Black Model	1
16-1	—	Video Unit		(1)	62	113 1566 137	Pre-set Knob	Gold Model	1
16-2	—	S-Video Unit		(1)	63	113 1454 207	Tact Knob	Black Model	2
16-3	—	Tact SW Unit		(1)	63	113 1454 210	Tact Knob	Gold Model	2
16-4	—	Video Reg. Unit		(1)	64	113 1292 252	Push Knob(P)	Black Model	1
17	206 1061 031	Fuse 4A (250V)	F002	1	64	113 1292 265	Push Knob(P)	Gold Model	1
18	205 0592 003	4P Push Terminal		1	65	002 0047 001	21C FF Cable(UL20624)		1
19	—	—			66	146 9045 207	Blind Sheet	Black Model	1
20	204 8308 005	3P Pin Jack(C-GND)		2	66	146 1117 104	Blind Sheet	Gold Model	1
21	204 8414 012	2P S-Terminal		1	67	112 0726 108	VR Knob Ass'y	Black Model	1
22	204 8426 013	1P S-Terminal		2	67	112 0726 111	VR Knob Ass'y	Gold Model	1
24	1U-2543B	Surround Unit Ass'y		1 <sup>S</sup>	68	112 0685 100	Knob(Round)	Black Model	3
24-1	—	Surround Unit		(1)	68	112 0685 113	Knob(Round)	Gold Model	3
24-2	—	VFD Unit		(1)	69	445 8004 007	Wire Clamper		10
24-4	—	F SW Unit		(1)	70	102 0406 531	Top Cover	Black Model	1
25	393 4131 000	FLD (FIP14PM8)		1	70	102 0406 544	Top Cover	Gold Model	1
26	232 0168 002	LC Filter		2	71	461 9001 043	Rubber Sheet	10×70×T5	2
27	499 0150 008	Remocon Receiver	SBX1610-52	1	72	—	—		
28	211 0759 003	Variable Resistor 100kohm	VR701	1	73	254 4256 790	Chemicon 2200μF/25V	C507	1
29	1U-2507D	Tuner C Unit Ass'y		1 <sup>S</sup>	74	254 4365 704	Chemicon 10000μF/56V	C509, 510	2
29-1	—	Tuner Unit		(1)	75	254 4259 726	Chemicon 4700μF/35V	C421, 422	2
29-2	—	—			76	414 0685 006	Shield Cover		1
29-3	—	Regulator Unit		(1)	77	445 0048 003	Cord Holder(L76)		1
30	205 0432 008	4P Ant. Terminal		1	78	475 1006 016	5 Washer	Gold Model Only	6
31	216 0064 007	Front End		1	79	101 2149 068	Wood Board(L)	Gold Model Only	1
32	204 8278 009	6P Pin Jack(S-GND)		1	80	101 2143 064	Wood Board(R)	Gold Model Only	1
33	411 1212 000	Front Chassis Ass'y		1	81	—	—		
34	411 1095 214	Side Chassis		1	82	212 4293 005	Slide Switch		1
35	411 1094 613	Trans Chassis		1	83	515 8030 008	Preset Label		1
36	415 9032 006	P.C.B Holder(T)		1	84	212 9555 007	Voltage Sel Switch	110~240V	1
37	412 3451 105	P.W.B Bracket		1	85	212 1020 006	Voltage Sel Switch	110~220V	1
38	412 9160 607	Trans Bracket		1	86	124 0032 002	Felt Sheet	Gold Model Only	6
39	412 2814 028	Card Spacer(L=10)		7	87	513 2131 004	Label	Black Only	2
40	412 2897 100	VR.Bracket		1	88	513 2131 017	Label	Black Only	2
41	417 0458 520	Power Radiator(A)		1	89	—	—		
42	415 0234 007	Insulating Sheet		6					
43	271 0240 006	Transistor 2SA1491(O/P/Y)(Z)		3					
44	273 0389 002	Transistor 2SC3855(O/P/Y)(Z)		3					

Ref. No.	Part No.	Part Name	Remarks	Q'ty
<b>SCREWS</b>				
101	473 7015 018	Tapping Screw(S)3x8	Black	30
102	473 7007 000	Tapping Screw(S)4x8	Black	12
103	473 7511 004	F.Tapping Screw(P)3x10		2
104	473 7501 001	Tapping Screw(P)3x10		14
105	473 7006 027	Tapping Screw(S)3x10	Black	1
107	473 8007 025	Cup Screw 3x8		5
108	473 8007 009	Cup Screw 3x12		11
109	477 0064 107	Fixing Screw		21
110	477 0263 005	3P Swelling Screw	Black Model	6
	473 7007 039	4x20 CBTS (S)-B	Gold Model	6
111	473 7009 011	F.H.Tapping Screw(S)3x10		3
112	473 7007 039	Tapping Screw(S)4x20	Black	6
114	473 7002 021	Tapping Screw(S)3x8		2
115	471 3201 024	2.6x4 CBS		2
<b>PACKING AND ACCESSORIES (Not including EXPLODED VIEW)</b>				
201	504 9102 029	Styrene Paper		1
202	505 9102 019	Poly Cover		1
203	503 0915 306	Cushion Ass'y		1
204	501 1472 020	Carton Case	Black Model	1
	501 1472 046	Carton Case	Gold Model	1
205	GEN 2284	Envelope Sub Ass'y		1 <sup>S</sup>
205-1	505 8006 019	Envelope		1
205-2	511 2439 001	Inst.Manual		1
205-3	231 1129 005	Loop Antenna		
205-4	395 0019 009	FM Ant. Ass'y		
205-5	—	Battery	R6P/AA	4
206	499 0256 009	Remote Controller	RC-161	1
	499 0253 002	RC-160		1
207	—	—		
208	513 9111 001	Color Label (Gold)	Gold Model Only	2

**NOTE FOR PARTS LIST**

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- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/6W, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

**WARNING:**

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WIRING DIAGRAM

1

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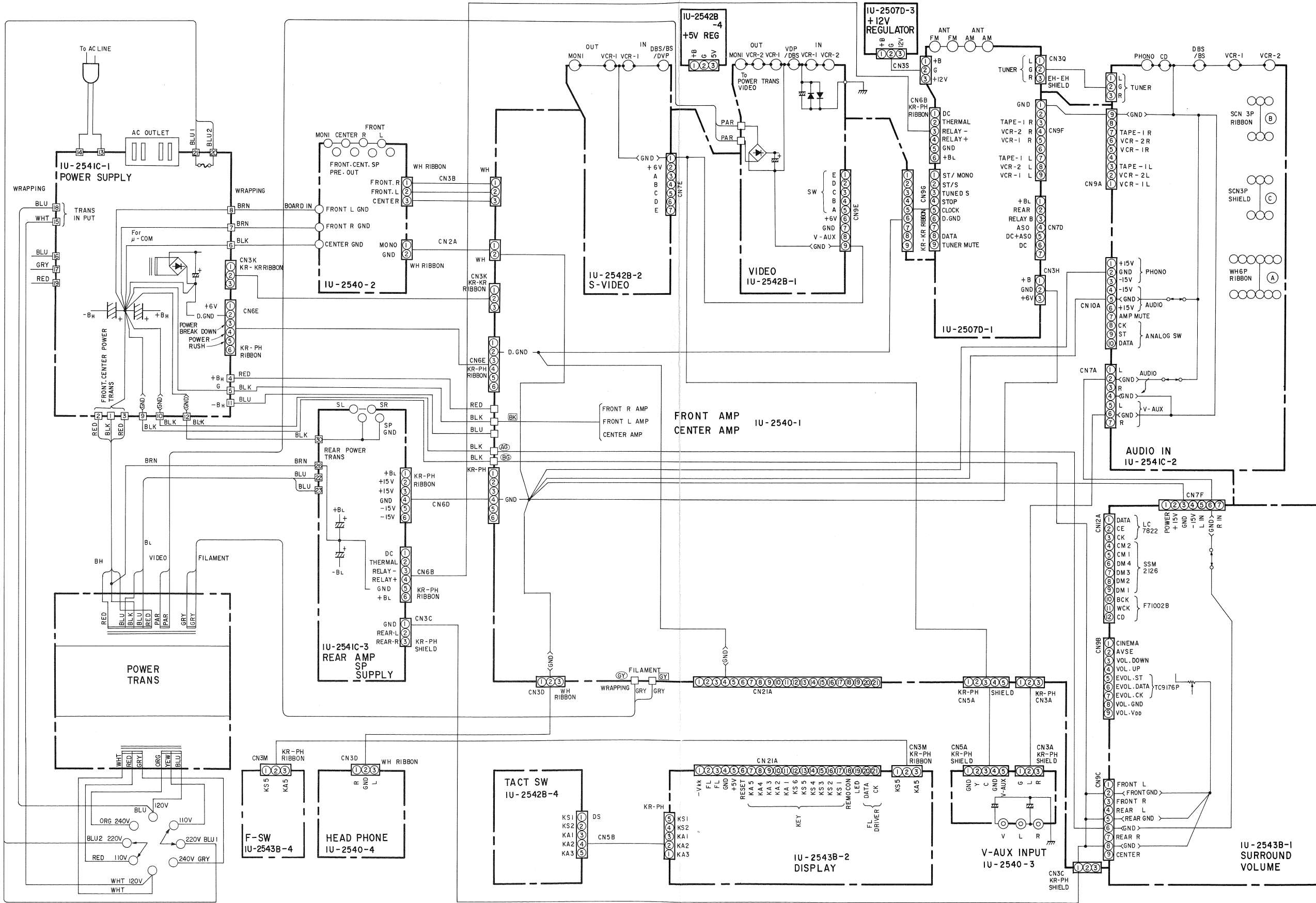
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B

C

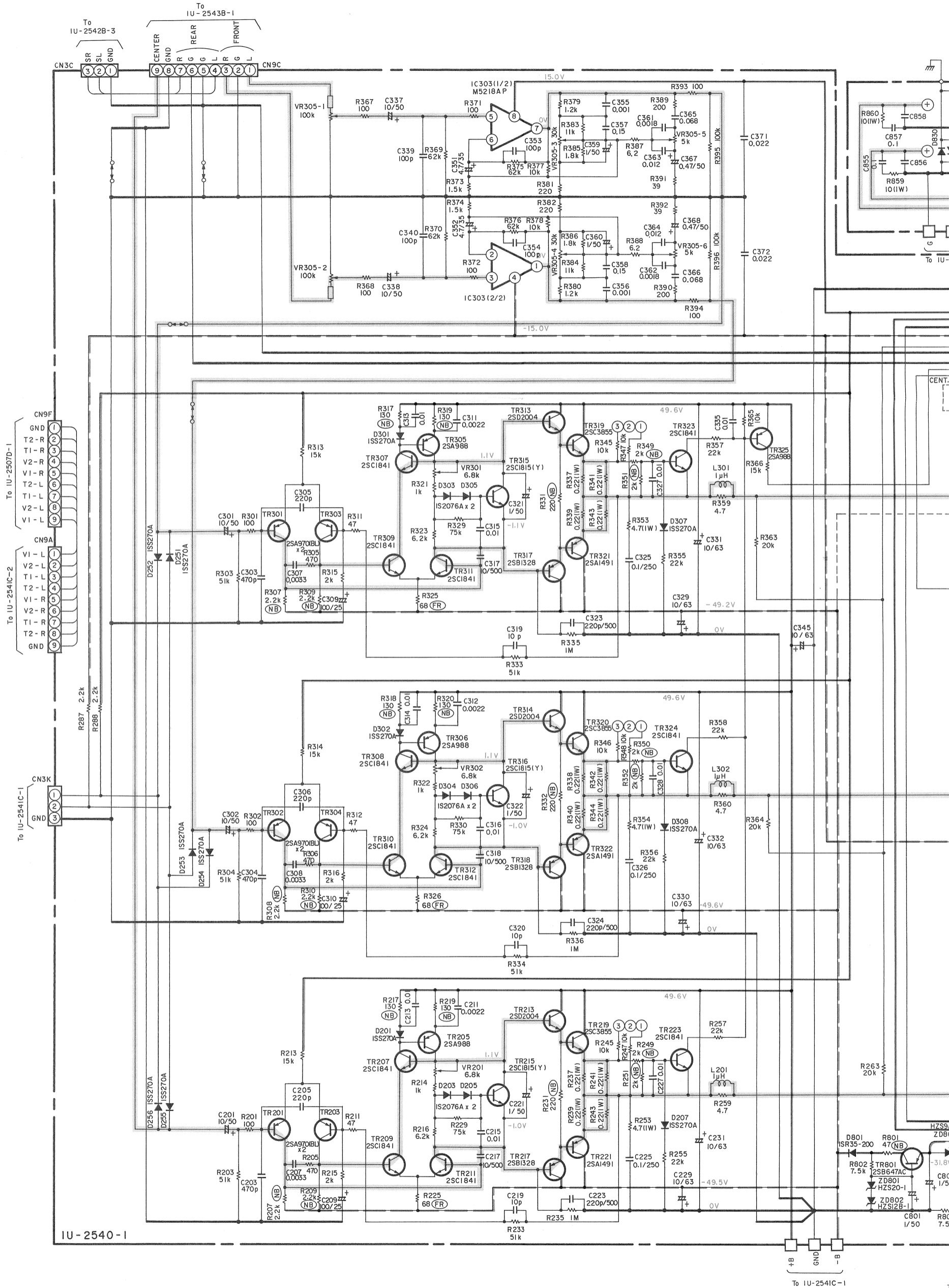
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E



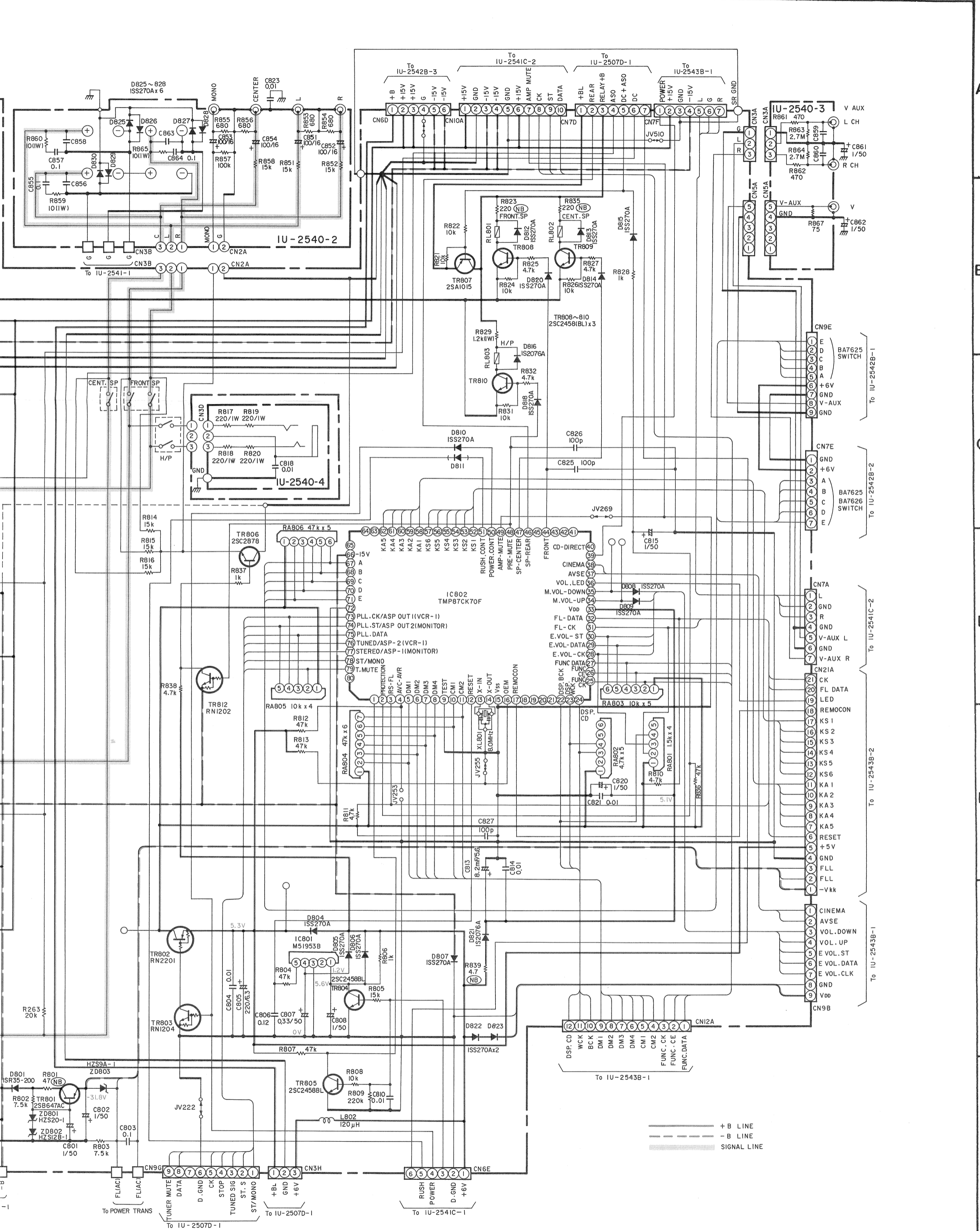
**SCHEMATIC DIAGRAM -1/4**

1 | 2 | 3 | 4 | 5 | 6



**NOTES**  
 ALL RESISTANCE VALUES IN OHM. k=1,000  
 ALL CAPACITANCE VALUES IN MICRO FARADS  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT THE POINTS SHOWN  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE

6 7 8 9 10 11



- - - - - + B LINE  
 - - - - - - B LINE  
 \_\_\_\_\_ SIGNAL LINE

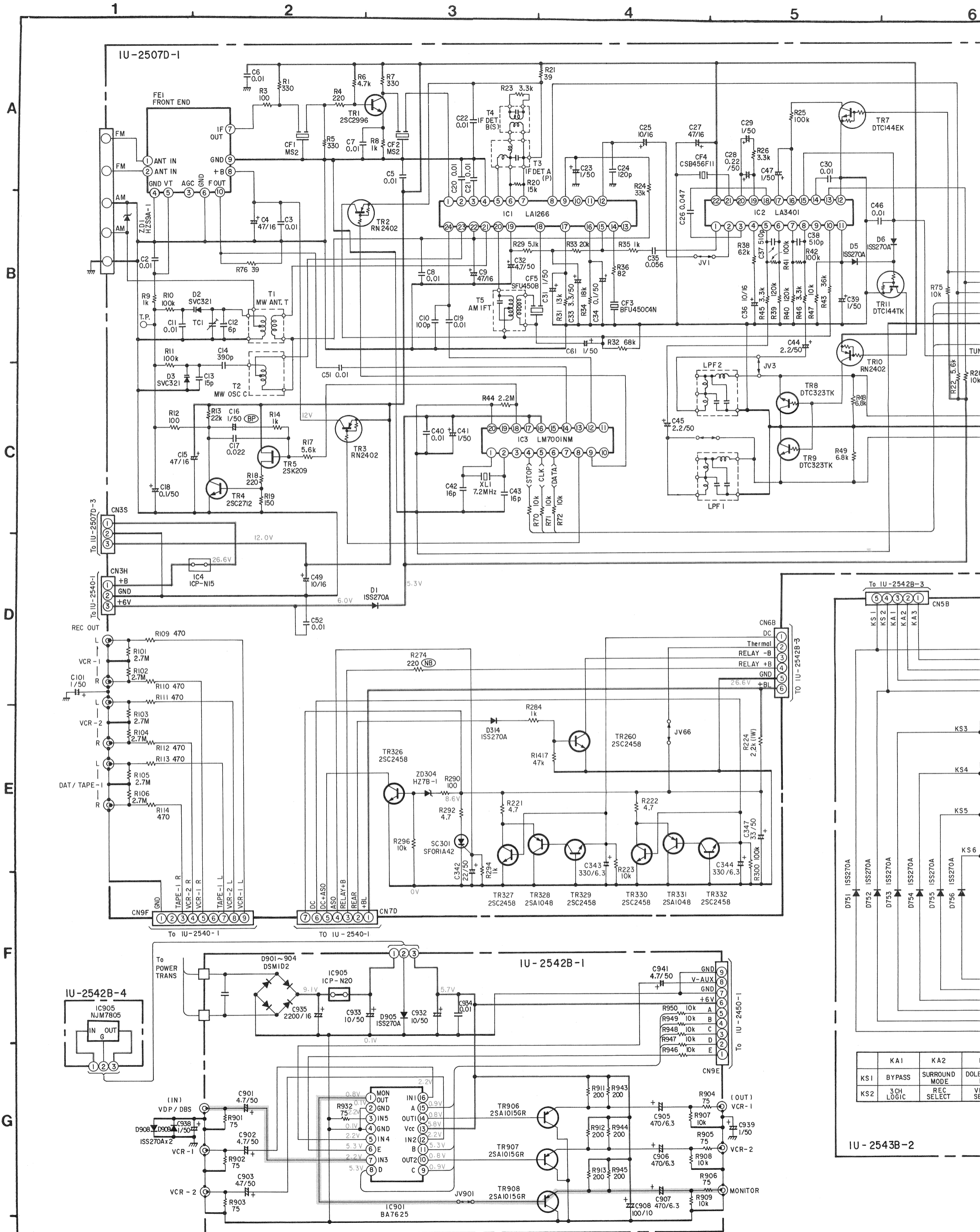
**WARNING:**  
 Parts marked with this symbol  have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**  
 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 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

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

VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM  
 E VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
 AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
 PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

SCHEMATIC DIAGRAM -2/4



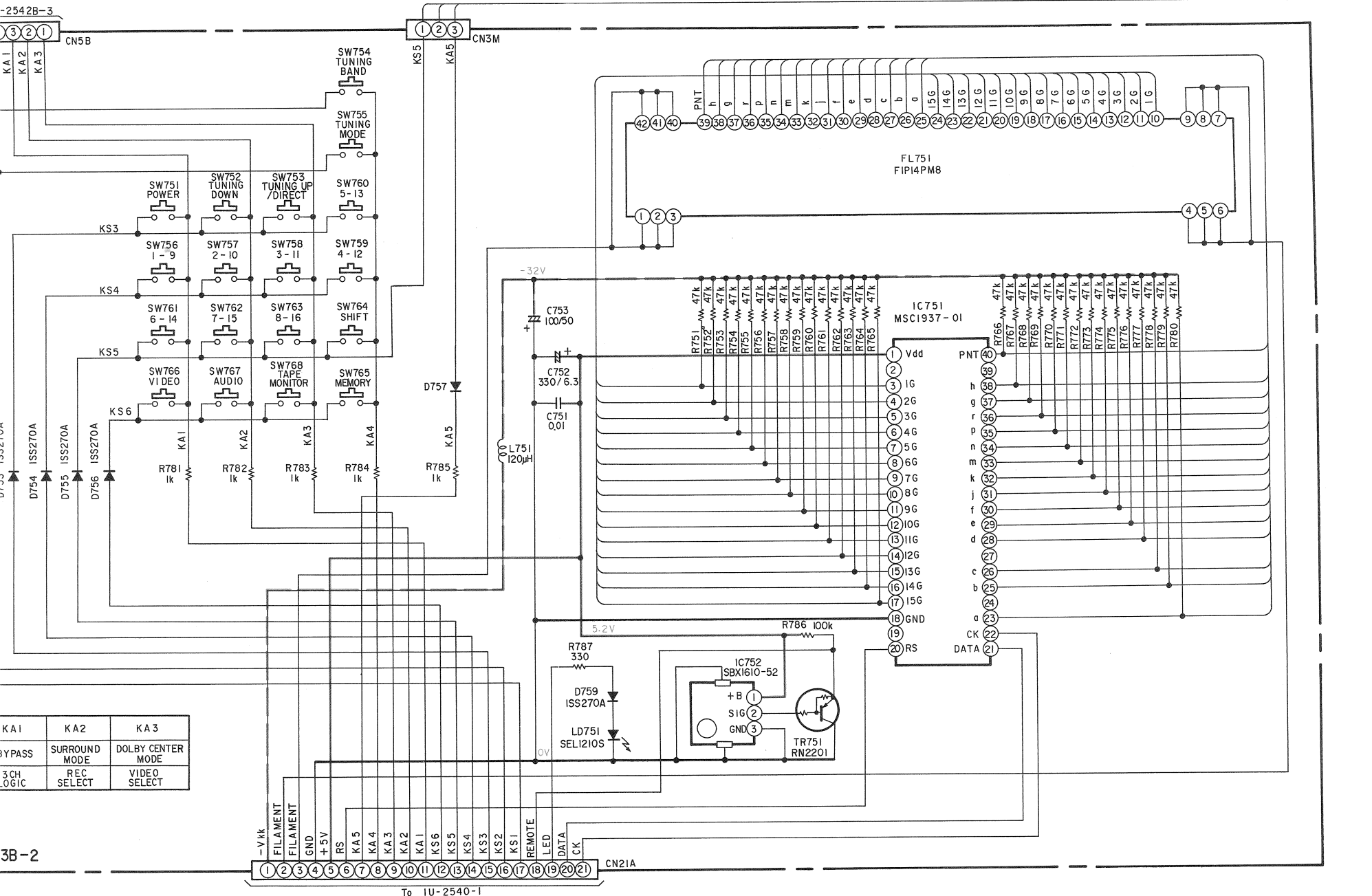
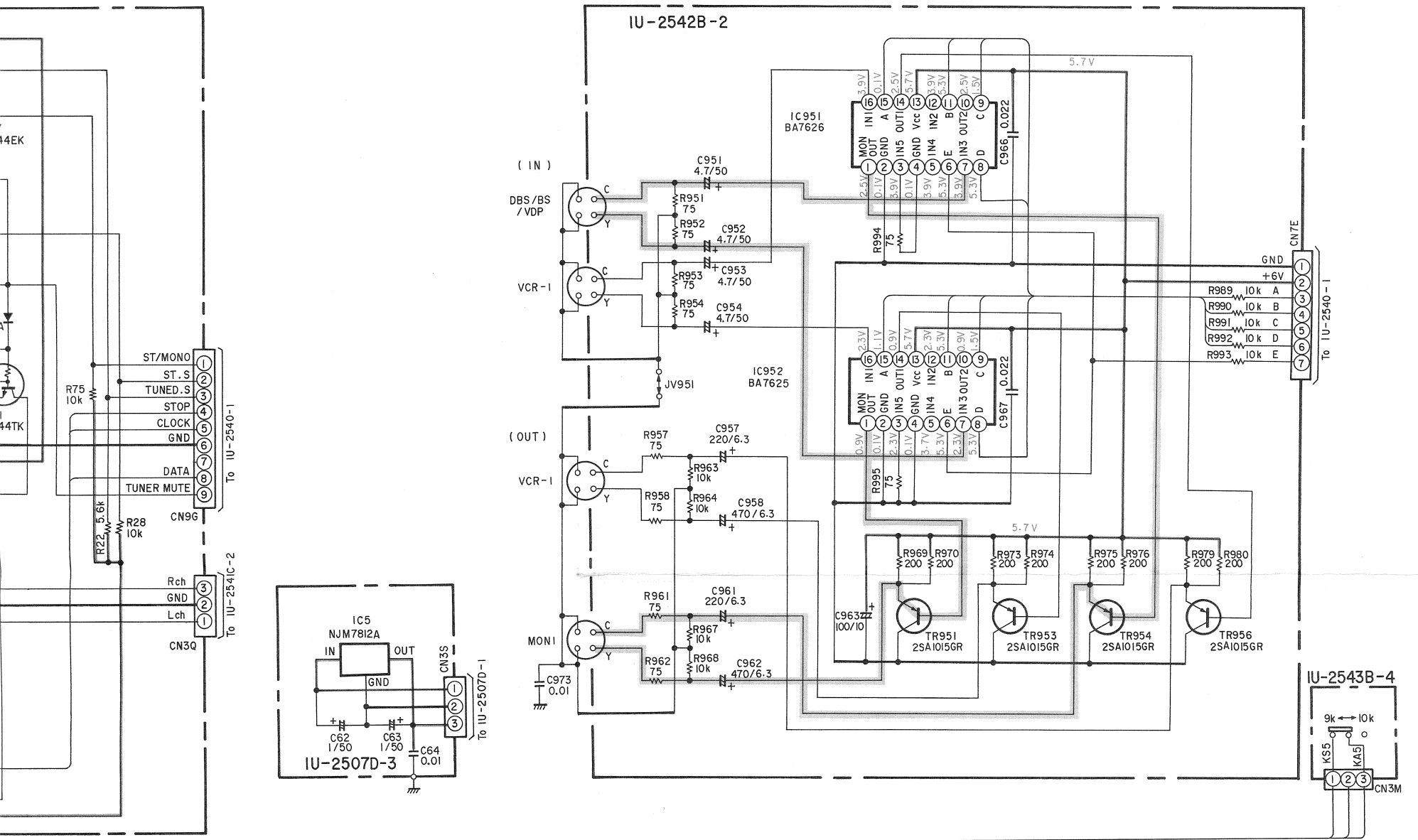
**WARNING:**  
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**NOTES**  
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD.  
EACH VOLTAGE AND CURRENT ARE MEASURED AT THE POINT INDICATED.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

KA1	KA2	
KS1	BYPASS	SURROUND MODE
KS2	3CH LOGIC	REC SELECT



KA1	KA2	KA3
BYPASS	SURROUND MODE	DOLBY CENTER MODE
3CH LOGIC	REC SELECT	VIDEO SELECT

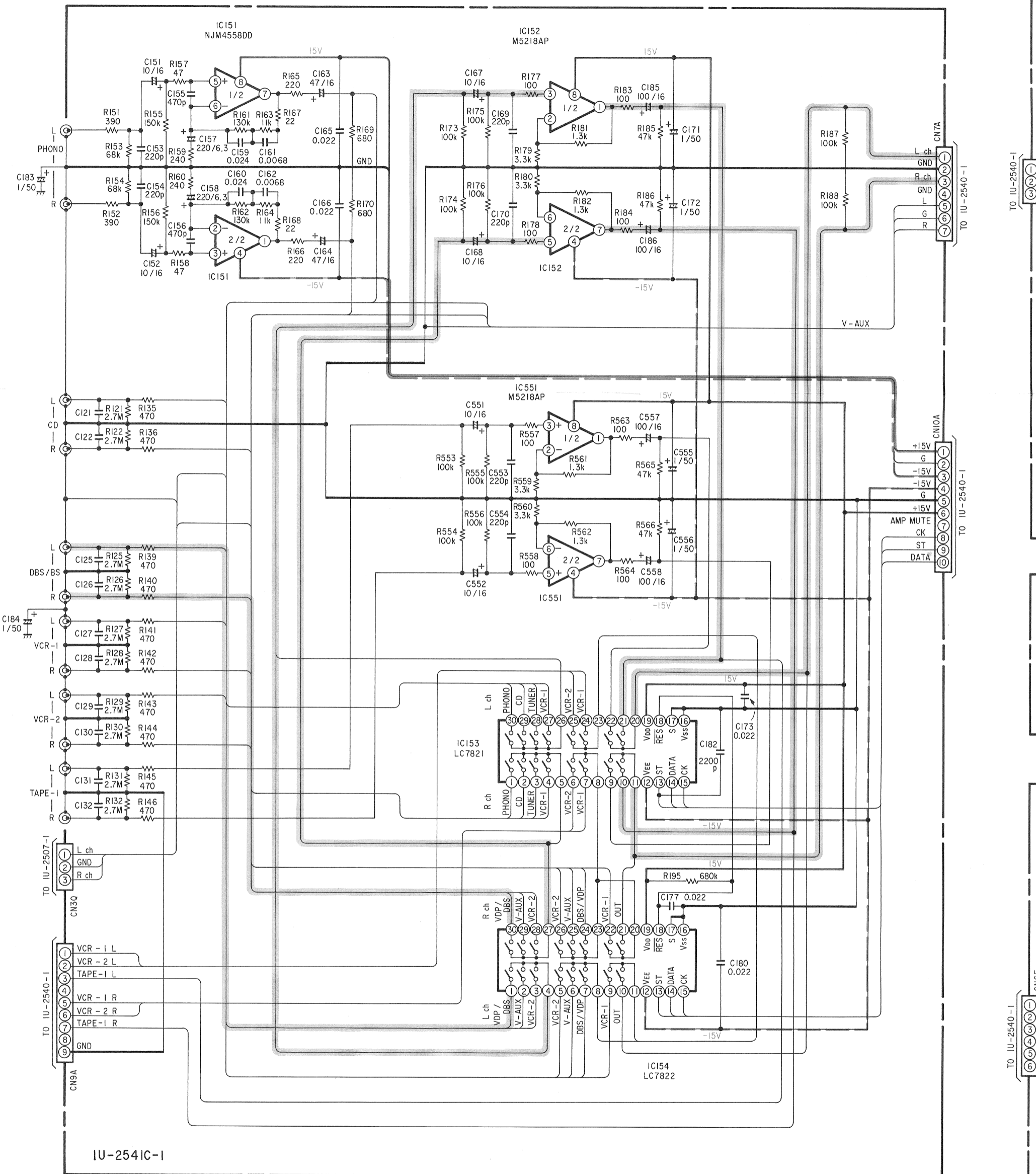


--- +B LINE  
--- -B LINE  
--- SIGNAL LINE

RES IN OHM. k=1,000 OHM, M=1,000,000 OHM  
RES IN MICRO FARAD. P=MICRO-MICRO FARAD  
CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

SCHEMATIC DIAGRAM -3/4

1 2 3 4 5 6



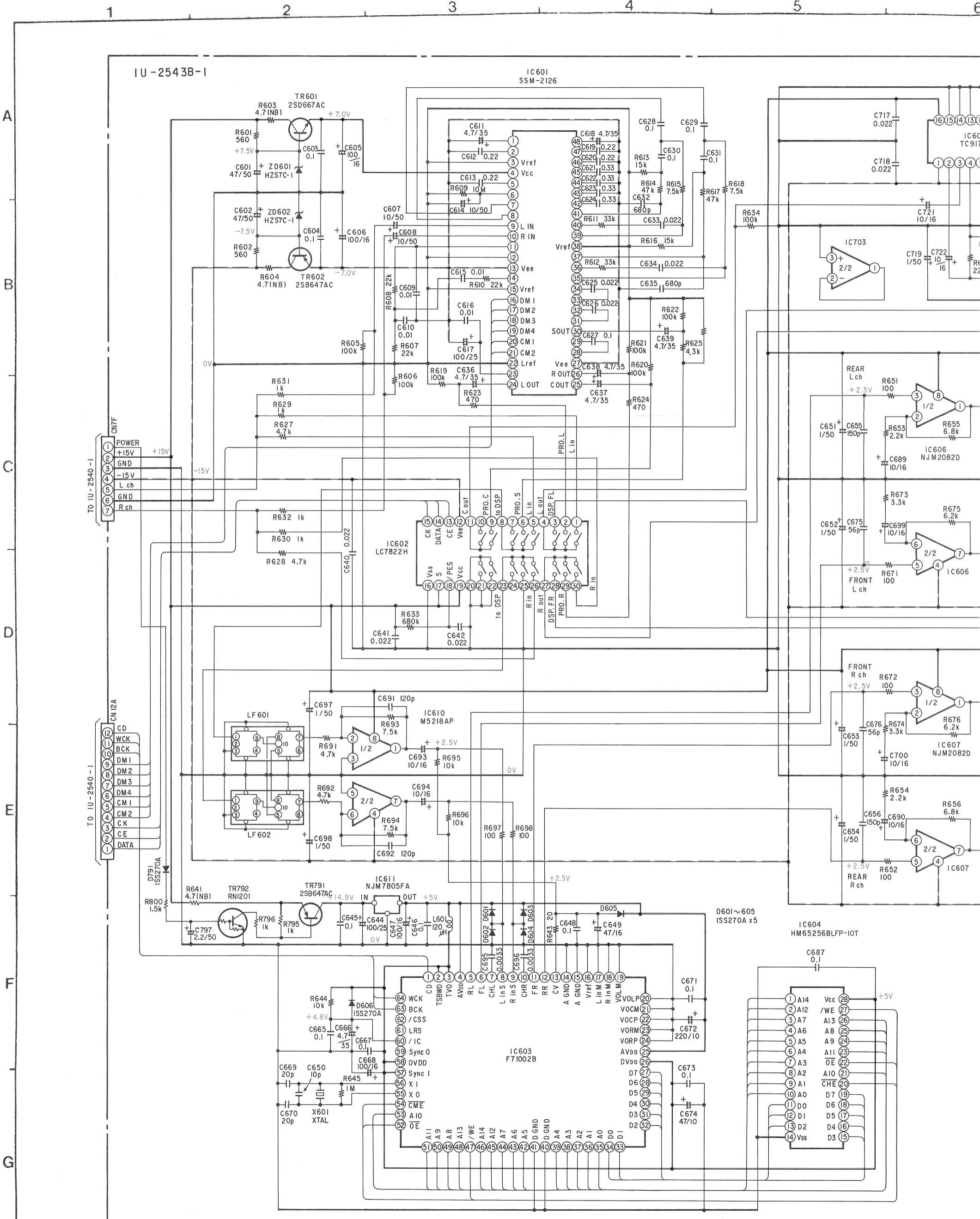
IU-254IC-1

**NOTES**  
 ALL RESISTANCE VALUES IN OHM, K=  
 ALL CAPACITANCE VALUES IN MICRO  
 EACH VOLTAGE AND CURRENT ARE M  
 CIRCUIT AND PARTS ARE SUBJECT TO





SCHEMATIC DIAGRAM -4/4

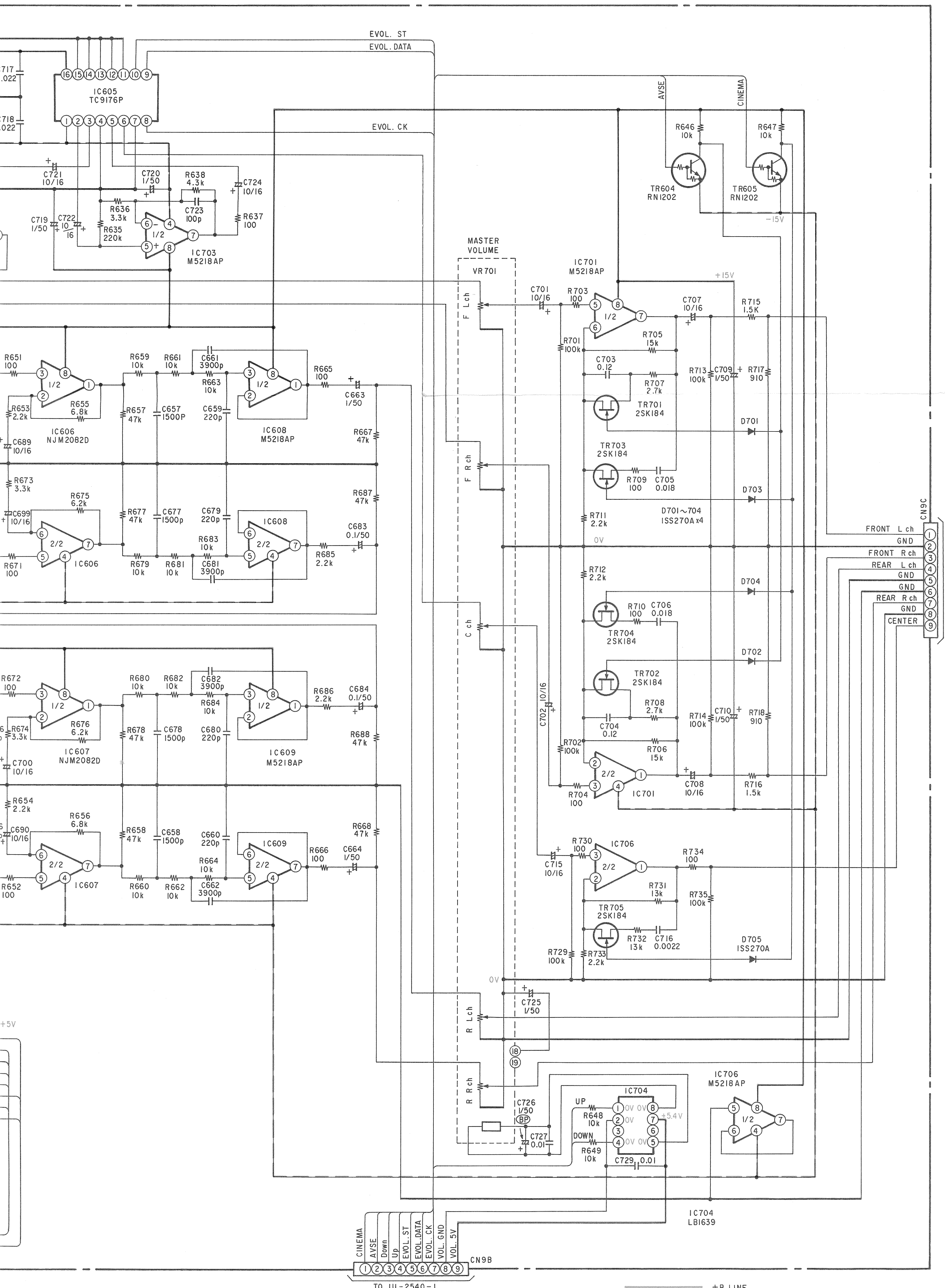


**WARNING:**  
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ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO.  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT NOTICE.



=1,000 OHM, M=1,000,000 OHM  
 D) FARAD. P=MICRO-MICRO FARAD  
 MEASURED AT NO SIGNAL INPUT CONDITION.  
 TO CHANGE WITHOUT PRIOR NOTICE.

TO IU-2540-1

————— +B LINE  
 - - - - - -B LINE